Microsoft AZ-303 Exam Actual Questions

Question #1*Topic 1*
You have an Azure subscription that contains 10 virtual machines on a virtual network.
You need to create a graph visualization to display the traffic flow between the virtual machines.
What should you do from Azure Monitor?

- A. From Activity log, use quick insights.
- B. From Metrics, create a chart.
- C. From Logs, create a new query.
- D. From Workbooks, create a workbook.

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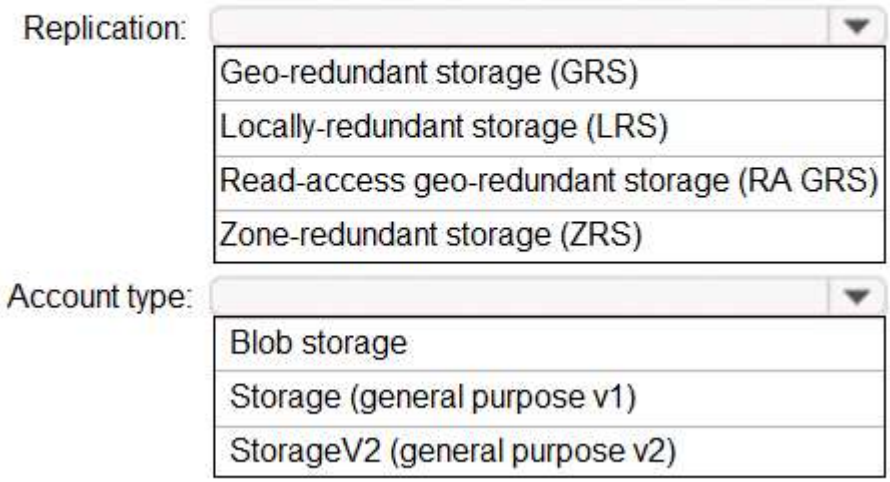
Correct Answer: *D*
Navigate to Azure Monitor and select Logs to begin querying the data
Reference:
https://azure.microsoft.com/en-us/blog/analysis-of-network-connection-data-with-azure-monitor-for-virtual-machines/

Question #2*Topic 1*
HOTSPOT -
You plan to create an Azure Storage account in the Azure region of East US 2.
You need to create a storage account that meets the following requirements:
☞ Replicates synchronously
☞ Remains available if a single data center in the region fails
How should you configure the storage account? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area



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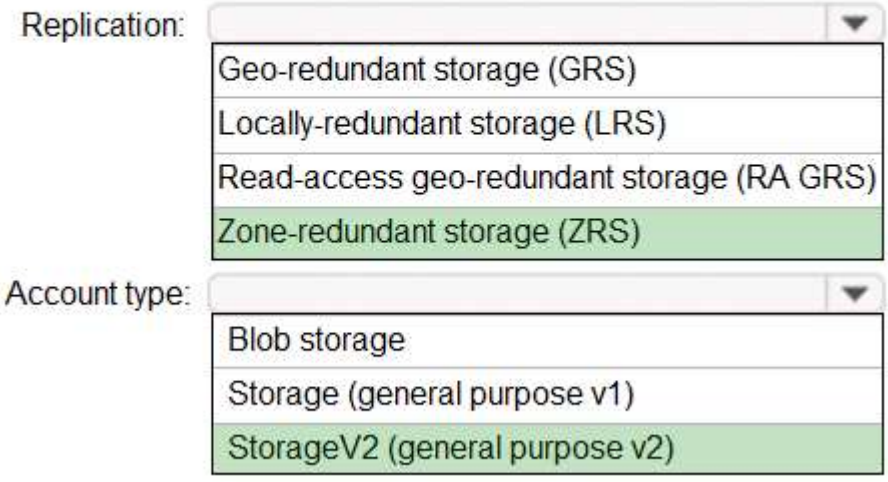
Correct

Answer Area



Answer:

Box 1: Zone-redundant storage (ZRS)

Zone-redundant storage (ZRS) replicates your data synchronously across three storage clusters in a single region.

LRS would not remain available if a data center in the region fails
GRS and RA GRS use asynchronous replication.
Box 2: StorageV2 (general purpose V2)
ZRS only support GPv2.
Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy
https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy-zrs

Question #3*Topic 1*
HOTSPOT -
You plan to deploy an Azure virtual machine named VM1 by using an Azure Resource Manager template.
You need to complete the template.
What should you include in the template? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

```
{
    "type": "Microsoft.Compute/vitualMachines",
    "apiVersion": "2018-10-01",
    "name": "VM1",
    "location": "[parameters('location')]",
    "dependsOn": [
        "[resourceId('Microsoft.Storage/storageAccounts/',   variables('Name3'))]",
        "[resourceId(                                        variables('Name4'))]"
],

{
    "type": "Microsoft.Network/networkInterfaces",
    "apiVersion": "2018-11-01",
    "name": "NIC1",
    "location": "[parameters('location')]",
    "dependsOn": [
        "[resourceId('Microsoft.Network/publicIPAddresses/', variables('Name1'))]",
        "[resourceId(                                        variables('Name2'))]"
],
```

'Microsoft.Network/publicIPAddresses/'
'Microsoft.Network/virtualNetworks/'
'Microsoft.Network/networkInterfaces/'
'Microsoft.Network/virtualNetworks/subnets'
'Microsoft.Storage/storageAccounts/'

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Correct Answer:

Answer Area

```
{
    "type": "Microsoft.Compute/vitualMachines",
    "apiVersion": "2018-10-01",
    "name": "VM1",
    "location": "[parameters('location')]",
    "dependsOn": [
        "[resourceId('Microsoft.Storage/storageAccounts/',   variables('Name3'))]",
        "[resourceId(                                        variables('Name4'))]"
],

{
    "type": "Microsoft.Network/networkInterfaces",
    "apiVersion": "2018-11-01",
    "name": "NIC1",
    "location": "[parameters('location')]",
    "dependsOn": [
        "[resourceId('Microsoft.Network/publicIPAddresses/', variables('Name1'))]",
        "[resourceId(                                        variables('Name2'))]"
],
```

- 'Microsoft.Network/publicIPAddresses/'
- 'Microsoft.Network/virtualNetworks/'
- **'Microsoft.Network/networkInterfaces/'**
- 'Microsoft.Network/virtualNetworks/subnets'
- 'Microsoft.Storage/storageAccounts/'

- 'Microsoft.Network/publicIPAddresses/'
- **'Microsoft.Network/virtualNetworks/'**
- 'Microsoft.Network/networkInterfaces/'
- 'Microsoft.Network/virtualNetworks/subnets'
- 'Microsoft.Storage/storageAccounts/'

Within your template, the dependsOn element enables you to define one resource as a dependent on one or more resources. Its value can be a comma- separated list of resource names.

Box 1: 'Microsoft.Network/networkInterfaces'

This resource is a virtual machine. It depends on two other resources:

Microsoft.Storage/storageAccounts

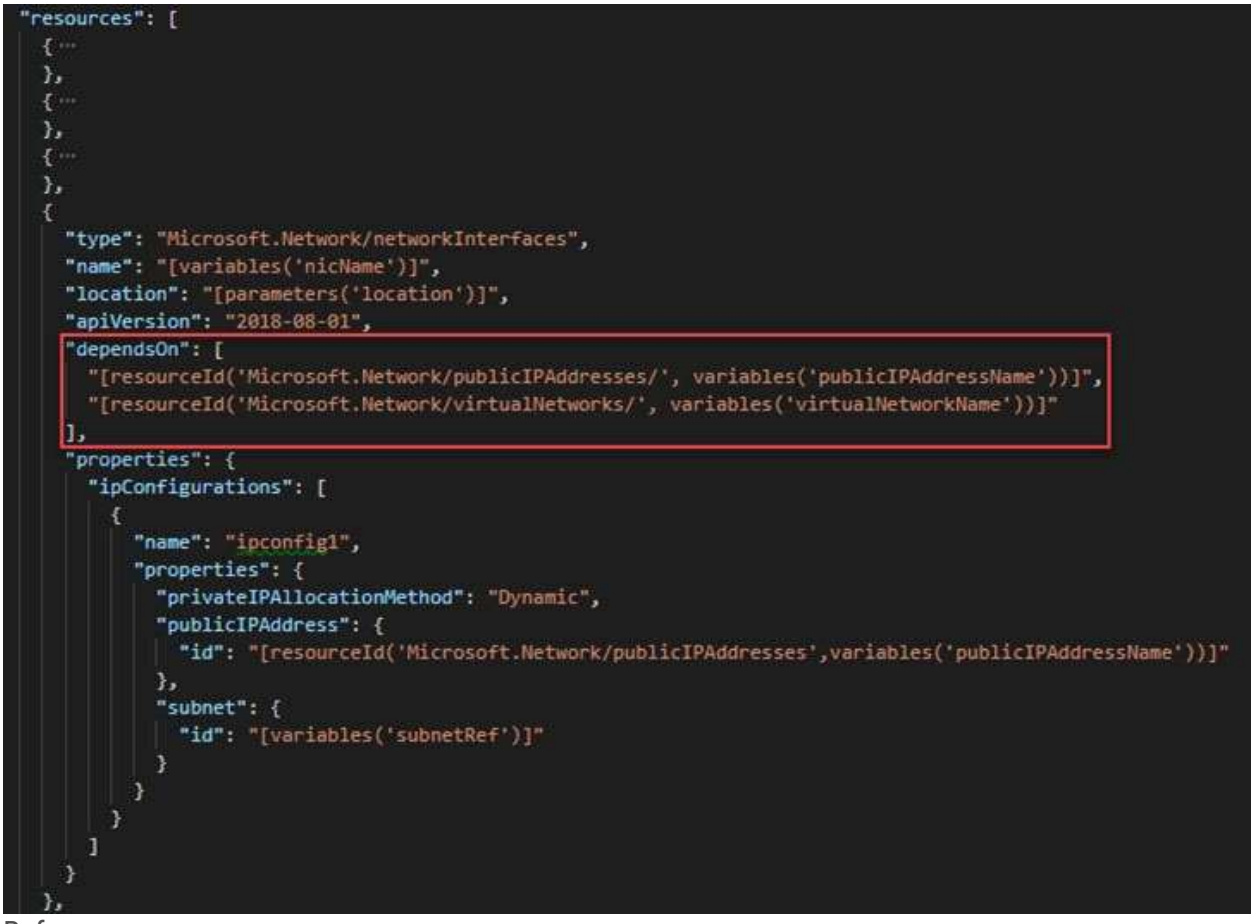
Microsoft.Network/networkInterfaces

Box 2: 'Microsoft.Network/virtualNetworks/'

The dependsOn element enables you to define one resource as a dependent on one or more resources. The resource depends on two other resources:

Microsoft.Network/publicIPAddresses

Microsoft.Network/virtualNetworks



Reference:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-tutorial-create-templates-with-dependent-resources

Question #4*Topic 1*
HOTSPOT -
Your network contains an Active Directory domain named adatum.com and an Azure Active Directory (Azure AD) tenant named adatum.onmicrosoft.com.
Adatum.com contains the user accounts in the following table.

Name	Member of
User1	Domain Admins
User2	Schema Admins
User3	Incoming Forest Trust Builders
User4	Replicator
User5	Enterprise Admins

Adatum.onmicrosoft.com contains the user accounts in the following table.

Name	Role
UserA	Global administrator
UserB	User administrator
UserC	Security administrator
UserD	Service administrator

You need to implement Azure AD Connect. The solution must follow the principle of least privilege. Which user accounts should you use in Adatum.com and Adatum.onmicrosoft.com to implement Azure AD Connect? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Adatum.com: ▼
- User1
- User2
- User3
- User4
- User5

Adatum.onmicrosoft.com: ▼
- UserA
- UserB
- UserC
- UserD

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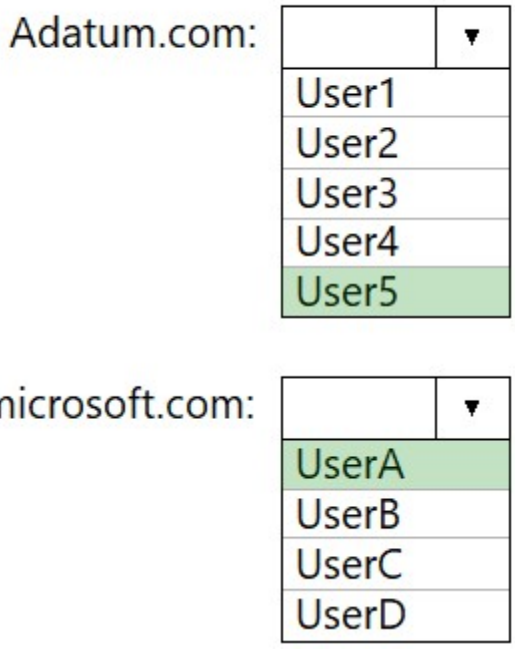
Answer Area



Correct Answer:
Box 1: User5 -
In Express settings, the installation wizard asks for the following:
AD DS Enterprise Administrator credentials
Azure AD Global Administrator credentials
The AD DS Enterprise Admin account is used to configure your on-premises Active Directory. These credentials are only used during the installation and are not used after the installation has completed. The Enterprise Admin, not the Domain Admin should make sure the permissions in Active Directory can be set in all domains.

Box 2: UserA -
Azure AD Global Admin credentials are only used during the installation and are not used after the installation has completed. It is used to create the Azure AD
Connector account used for synchronizing changes to Azure AD. The account also enables sync as a feature in Azure AD.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/connect/active-directory-aadconnect-accounts-permissions

Question #5*Topic 1*
You have an Azure subscription that contains 100 virtual machines.
You have a set of Pester tests in PowerShell that validate the virtual machine environment.
You need to run the tests whenever there is an operating system update on the virtual machines.
The solution must minimize implementation time and recurring costs.
Which three resources should you use to implement the tests? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Azure Automation runbook
- B. an alert rule
- C. an Azure Monitor query
- D. a virtual machine that has network access to the 100 virtual machines
- E. an alert action group

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Correct Answer: *ABE*

AE: You can call Azure Automation runbooks by using action groups or by using classic alerts to automate tasks based on alerts.

B: Alerts are one of the key features of Azure Monitor. They allow us to alert on actions within an Azure subscription

Reference:

https://docs.microsoft.com/en-us/azure/automation/automation-create-alert-triggered-runbook

https://techsnips.io/snips/how-to-create-and-test-azure-monitor-alerts/?page=13

Question #6*Topic 1*

HOTSPOT -

You have an Azure subscription that contains the resource groups shown in the following table.

Name	Location
RG1	West US
RG2	East US

You create an Azure Resource Manager template named Template1 as shown in the following exhibit.

```
{
    "$schema": "http://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
    "contentVersion": "1.0.0.0",
    "parameters": {
        "name": {
            "type": "String"
        },
        "location": {
           "defaultValue": "westus",
            "type": "String"
        }
    },
    "variables": {
              "location": "[resourceGroup().location]"
       },
    "resources": [
        {
            "type": "Microsoft.Network/publicIPAddresses",
            "apiVersion": "2019-11-01",
            "name": "[parameters('name')]",
            "location": "[variables('location')]",
            "sku": {
                "name": "Basic"
            },
            "properties": {
                "publicIPAddressVersion": "IPv4",
                "publicIPAllocationMethod": "Dynamic",
                "idleTimeoutInMinutes": 4,
                "ipTags": []
             }
         }
    ]
}
```

From the Azure portal, you deploy Template1 four times by using the settings shown in the following table.

Resource group	Name	Location
RG1	IP1	westus
RG1	IP2	westus
RG2	IP1	westus
RG2	IP3	westus

What is the result of the deployment? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Number of public IP addresses in West US: [▼]
- 1
- 2
- 3
- 4

Total number of public IP addresses created: [▼]
- 1
- 2
- 3
- 4

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Correct Answer:

Answer Area

Number of public IP addresses in West US: [▼]
- 1
- **2**
- 3
- 4

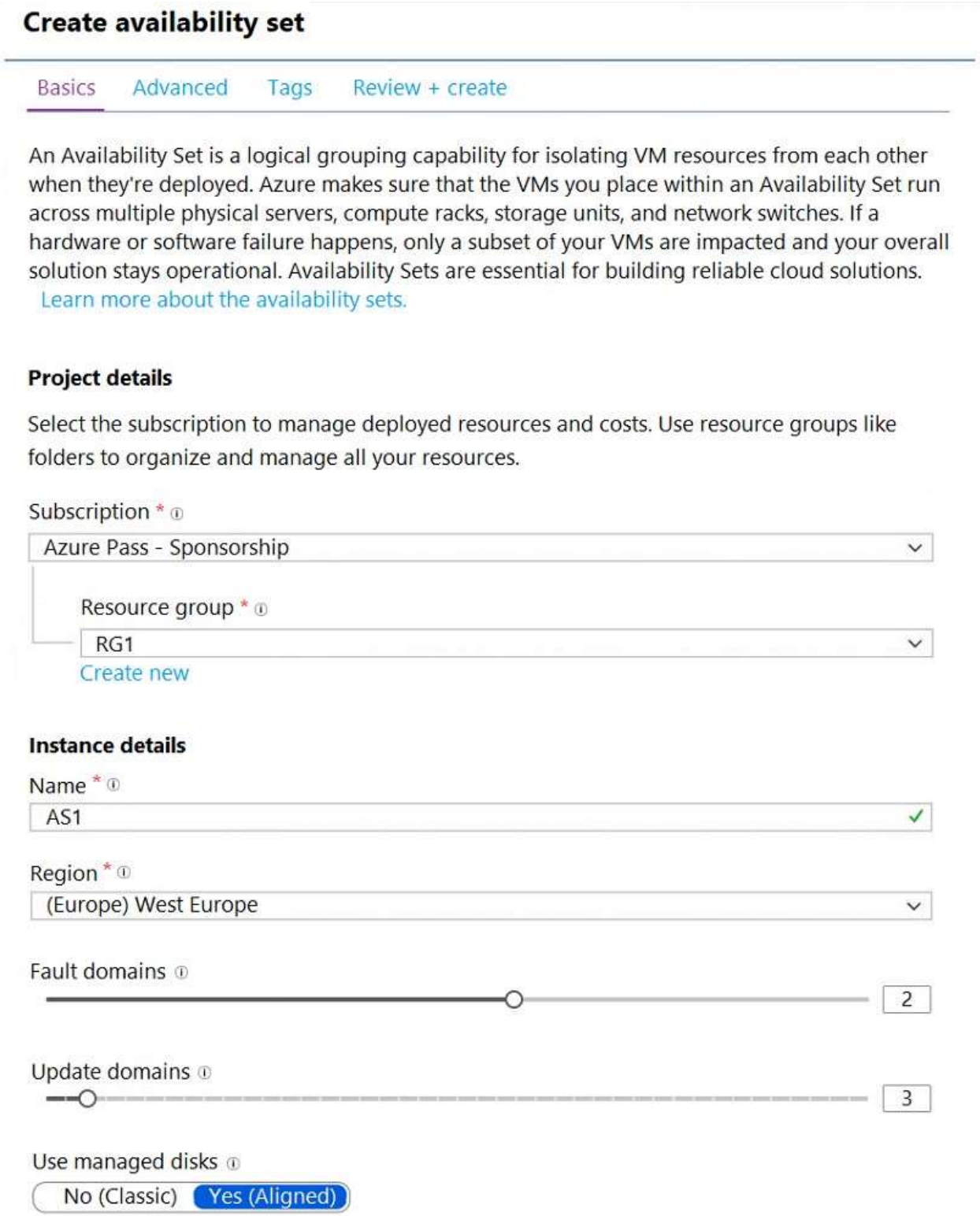
Total number of public IP addresses created: [▼]
- 1
- 2
- 3
- **4**

Question #7*Topic 1*

HOTSPOT -

You have an Azure subscription that contains multiple resource groups.

You create an availability set as shown in the following exhibit.



You deploy 10 virtual machines to AS1.
Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

During planned maintenance, at least **[answer choice]** virtual machines will be available.

- 4
- 5
- 6
- 8

To add another virtual machine to AS1, the virtual machine must be added to **[answer choice]**.

- any region and the RG1 resource group
- the West Europe region and any resource group
- the West Europe region and the RG1 resource group

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Correct Answer:

Answer Area

During planned maintenance, at least **[answer choice]** virtual machines will be available.

- 4
- 5
- 6
- 8

To add another virtual machine to AS1, the virtual machine must be added to **[answer choice]**.

- any region and the RG1 resource group
- the West Europe region and any resource group
- the West Europe region and the RG1 resource group

Box 1: 6 -
Two out of three update domains would be available, each with at least 3 VMs.
An update domain is a group of VMs and underlying physical hardware that can be rebooted at the same time.
As you create VMs within an availability set, the Azure platform automatically distributes your VMs across these update domains. This approach ensures that at least one instance of your application always remains running as the Azure platform undergoes periodic maintenance.
Box 2: the West Europe region and the RG1 resource group
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/regions

Question #8*Topic 1*
You have an Azure subscription that contains an Azure Log Analytics workspace.
You have a resource group that contains 100 virtual machines. The virtual machines run Linux.
You need to collect events from the virtual machines to the Log Analytics workspace.
Which type of data source should you configure in the workspace?

- A. Syslog
- B. Linux performance counters
- C. custom fields

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Correct Answer: *A*

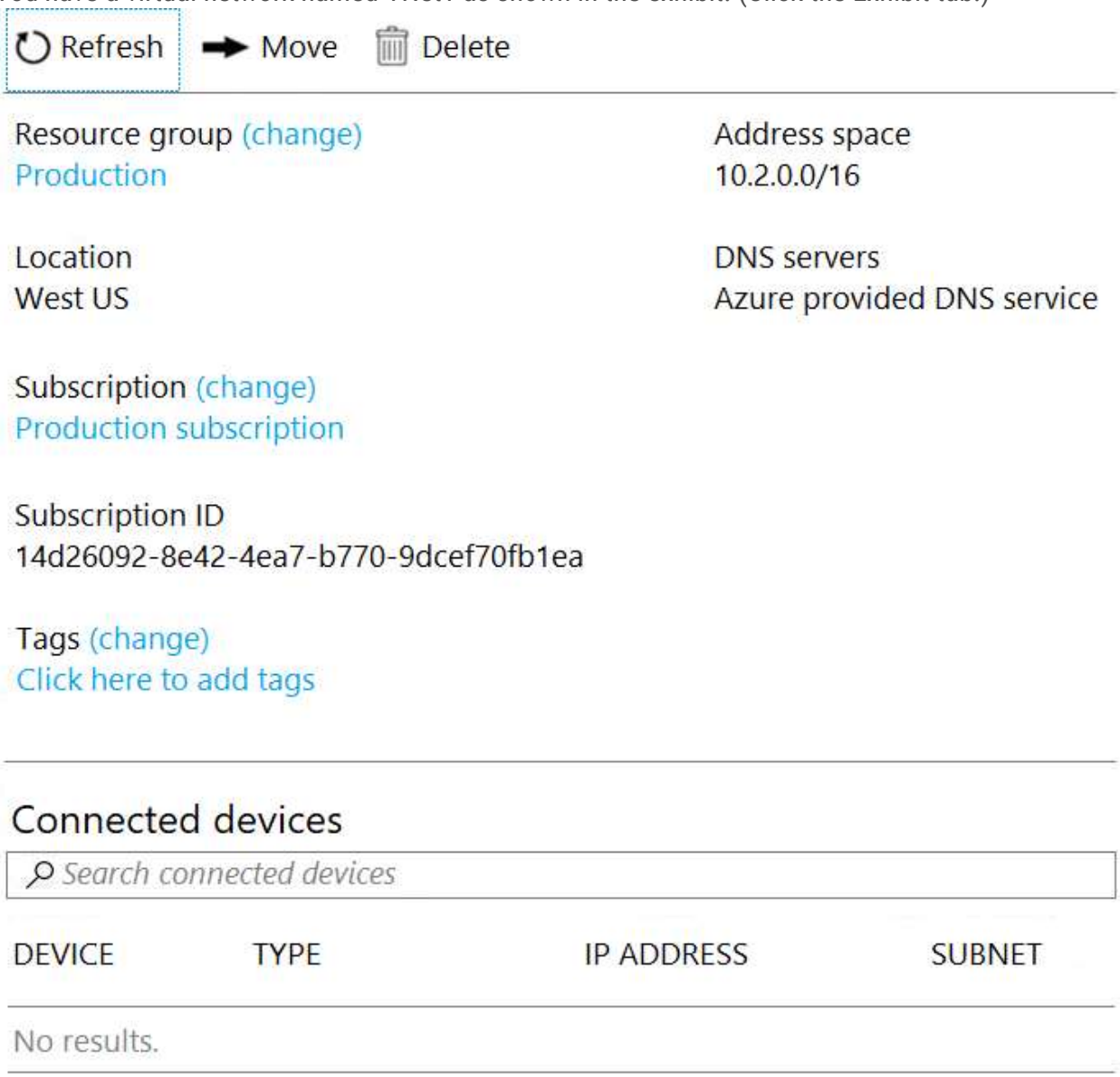
Syslog is an event logging protocol that is common to Linux. Applications will send messages that may be stored on the local machine or delivered to a Syslog collector. When the Log Analytics agent for Linux is installed, it configures the local Syslog daemon to forward messages to the agent. The agent then sends the message to Azure Monitor where a corresponding record is created.

Reference:

https://docs.microsoft.com/en-us/azure/azure-monitor/platform/data-sources-custom-logs

Question #9*Topic 1*

You have a virtual network named VNet1 as shown in the exhibit. (Click the Exhibit tab.)



No devices are connected to VNet1.
You plan to peer VNet1 to another virtual network named VNet2. VNet2 has an address space of 10.2.0.0/16.
You need to create the peering.
What should you do first?

- A. Configure a service endpoint on VNet2.
- B. Add a gateway subnet to VNet1.
- C. Create a subnet on VNet1 and VNet2.
- D. Modify the address space of VNet1.

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Correct Answer: *D*
The virtual networks you peer must have non-overlapping IP address spaces. The exhibit indicates that VNet1 has an address space of 10.2.0.0/16, which is the same as VNet2, and thus overlaps. We need to change the address space for VNet1.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering#requirements-and-constraints

Question #10*Topic 1*
HOTSPOT -
You have an Azure Resource Manager template for a virtual machine named Template1. Template1 has the following parameters section.

```
"parameters": {
    "adminUsername": {
        "type": "string"
    },
    "adminPassword": {
        "type": "securestring"
    },
    "dnsLabelPrefix": {
        "type": "string"
    },
    "windowsOSVersion": {
        "type": "string",
        "defaultValue": "2016-Datacenter",
        "allowedValues": [
            "2016-Datacenter",
            "2019-Datacenter",
        ]
    },
    "location": {
        "type": "String",
        "allowedValues": [
            "eastus",
            "centralus",
            "westus" ]
     }
},
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
When you deploy Template1 by using the Azure portal, you are prompted for a resource group.	○	○
When you deploy Template1 by using the Azure portal, you are prompted for the Windows operating system version.	○	○
When you deploy Template1 by using the Azure portal, you are prompted for a location.	○	○

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Correct Answer:

Answer Area

Statements	Yes	No
When you deploy Template1 by using the Azure portal, you are prompted for a resource group.	○	○
When you deploy Template1 by using the Azure portal, you are prompted for the Windows operating system version.	○	○
When you deploy Template1 by using the Azure portal, you are prompted for a location.	○	○

Box 1: Yes -
The Resource group is not specified.

Box 2: No -
The default value for the operating system is Windows 2016 Datacenter.

Box 3: Yes -
Location is no default value.
Reference:
https://docs.microsoft.com/bs-latn-ba/azure/virtual-machines/windows/ps-template

Question #11*Topic 1*
You have an Azure subscription.
You have 100 Azure virtual machines.
You need to quickly identify underutilized virtual machines that can have their service tier changed to a less expensive offering.
Which blade should you use?

- A. Metrics
- B. Customer insights
- C. Monitor

- D. Advisor

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Correct Answer: *D*

Advisor helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. You can get cost recommendations from the Cost tab on the Advisor dashboard.

Reference:

https://docs.microsoft.com/en-us/azure/advisor/advisor-cost-recommendations

Question #12*Topic 1*

HOTSPOT -

You have an Azure Active Directory (Azure AD) tenant named contoso.com. The tenant contains the users shown in the following table.

Name	Member of
User1	Group1
User2	Group2

The tenant contains computers that run Windows 10. The computers are configured as shown in the following table.

Name	Member of
Computer1	GroupA
Computer2	GroupA
Computer3	GroupB

You enable Enterprise State Roaming in contoso.com for Group1 and GroupA.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
If User1 modifies the desktop background of Computer1, User1 will see the changed background when signing in to Computer3.	○	○
If User2 modifies the desktop background of Computer1, User2 will see the changed background when signing in to Computer2.	○	○
If User1 modifies the desktop background of Computer3, User1 will see the changed background when signing in to Computer2.	○	○

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Correct Answer:

Answer Area

Statements	Yes	No
If User1 modifies the desktop background of Computer1, User1 will see the changed background when signing in to Computer3.	○	○
If User2 modifies the desktop background of Computer1, User2 will see the changed background when signing in to Computer2.	○	○
If User1 modifies the desktop background of Computer3, User1 will see the changed background when signing in to Computer2.	○	○

Enterprise State Roaming provides users with a unified experience across their Windows devices and reduces the time needed for configuring a new device.

Box 1: Yes -

Box 2: No -

Box 3: Yes -
Reference:
https://docs.microsoft.com/en-us/azure//////active-directory/devices/enterprise-state-roaming-overview

Question #13*Topic 1*
HOTSPOT -
You have an Azure Resource Manager template named Template1 in the library as shown in the following exhibit.

ARM Template

template1

```
{
    "$schema": "https:/schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
    "contentVersion": "1.0.0.0",
    "parameters": {},
    "resources": [
      {
        "apiVersion": "2016-01-01",
        "type": "Microsoft.Storage/storageAccounts",
        "name": "[concat(copyIndex(),'storage', uniqueString(resourceGroup().id))]",
        "location": "[resourceGroup().location]",
        "sku": {
          "name": "Premium_LRS"
        },
        "kind": "Storage",
        "properties": {},
        "copy": {
          "name": "storagecopy",
          "count": 3,
          "mode": "Serial",
          "batchSize": 1
        }
      }

    ]
  }
```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

During the deployment of Template1, you can specify **[answer choice]**.	the number of resources to deploy the name of the resources to deploy the resource group to which to deploy the resources the permissions for the resources that will be deployed
Template1 deploys **[answer choice]**.	a single storage account in one resource group three storage accounts in one resource group three resource groups that each has one storage account three resource groups that each has three storage accounts

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Correct Answer:

Answer Area

During the deployment of Template1, you can specify **[answer choice]**.	the number of resources to deploy the name of the resources to deploy **the resource group to which to deploy the resources** the permissions for the resources that will be deployed
Template1 deploys **[answer choice]**.	a single storage account in one resource group **three storage accounts in one resource group** three resource groups that each has one storage account three resource groups that each has three storage accounts

Reference:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-syntax

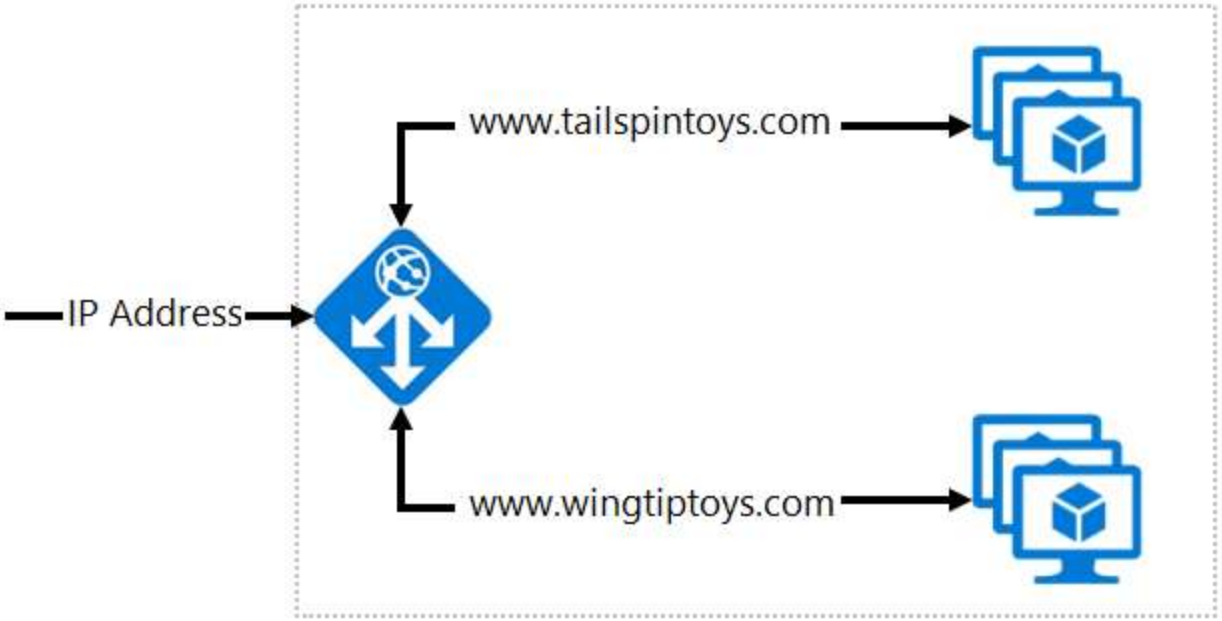
Question #14*Topic 1*

HOTSPOT -

Your company hosts multiple websites by using Azure virtual machine scale sets (VMSS) that run Internet Information Server (IIS).

All network communications must be secured by using end to end Secure Socket Layer (SSL) encryption. User sessions must be routed to the same server by using cookie-based session affinity.

The image shown depicts the network traffic flow for the websites to the VMSS.



Use the drop-down menus to select the answer choice that answers each question.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Which Azure solution should you create to route the web application traffic to the VMSS?	Azure VPN Gateway Azure Application Gateway Azure ExpressRoute Azure Network Watcher
What should you configure to make sure web traffic arrives at the appropriate server in the VMSS?	Routing rules and backend listeners CNAME and A records Routing method and DNS time to live (TTL) Path-based redirection and WebSockets

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Correct Answer:

Answer Area

Which Azure solution should you create to route the web application traffic to the VMSS?	Azure VPN Gateway **Azure Application Gateway** Azure ExpressRoute Azure Network Watcher
What should you configure to make sure web traffic arrives at the appropriate server in the VMSS?	Routing rules and backend listeners CNAME and A records Routing method and DNS time to live (TTL) **Path-based redirection and WebSockets**

Box 1: Azure Application Gateway
You can create an application gateway with URL path-based redirection using Azure PowerShell.
Box 2: Path-based redirection and Websockets
Reference:
https://docs.microsoft.com/bs-latn-ba/azure//application-gateway/tutorial-url-redirect-powershell

Question #15*Topic 1*
DRAG DROP -
You have an Azure subscription that contains two virtual networks named VNet1 and VNet2.
Virtual machines connect to the virtual networks.
The virtual networks have the address spaces and the subnets configured as shown in the following table.

Virtual network	Address space	Subnet	Peering
VNet1	10.1.0.0/16	10.1.0.0/24 10.1.1.0/26	VNet2
VNet2	10.2.0.0/26	10.2.0.0/24	VNet1

You need to add the address space of 10.33.0.0/16 to VNet1. The solution must ensure that the hosts on VNet1 and VNet2 can communicate.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
On the peering connection in VNet2, allow gateway transit.	
Recreate peering between VNet1 and VNet2.	
Remove VNet1.	
Create a new virtual network named VNet1.	
On the peering connection in VNet1, allow gateway transit.	
Add the 10.33.0.0/16 address space to VNet1.	
Remove peering between VNet1 and VNet2.	

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Correct Answer:

Actions	Answer Area
On the peering connection in VNet2, allow gateway transit.	Remove peering between VNet1 and VNet2.
Recreate peering between VNet1 and VNet2.	Add the 10.33.0.0/16 address space to VNet1.
Remove VNet1.	Recreate peering between VNet1 and VNet2.
Create a new virtual network named VNet1.	
On the peering connection in VNet1, allow gateway transit.	
Add the 10.33.0.0/16 address space to VNet1.	
Remove peering between VNet1 and VNet2.	

Step 1: Remove peering between Vnet1 and VNet2.
You can't add address ranges to, or delete address ranges from a virtual network's address space once a virtual network is peered with another virtual network.
To add or remove address ranges, delete the peering, add or remove the address ranges, then re-create the peering.
Step 2: Add the 10.44.0.0/16 address space to VNet1.
Step 3: Recreate peering between VNet1 and VNet2
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering

Question #16*Topic 1*
You have an Azure App Service app.
You need to implement tracing for the app. The tracing information must include the following:
☞ Usage trends
☞ AJAX call responses
☞ Page load speed by browser
☞ Server and browser exceptions
What should you do?

- A. Configure IIS logging in Azure Log Analytics.
- B. Configure a connection monitor in Azure Network Watcher.
- C. Configure custom logs in Azure Log Analytics.
- D. Enable the Azure Application Insights site extension.

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Correct Answer: *D*
For web pages, Application Insights JavaScript SDK automatically collects AJAX calls as dependencies.
Note: Some of the things you can track or collect are:
What are the most popular webpages in your application, at what time of day and where is that traffic coming from?
Dependency rates or response times and failure rates to find out if there's an external service that's causing performance issues on your app, maybe a user is using a portal to get through to your application and there are response time issues going through there for instance.
Exceptions for both server and browser information, as well as page views and load performance from the end users' side.
Reference:
https://azure.microsoft.com/en-us/blog/ajax-collection-in-application-insights/
https://blog.pragmaticworks.com/what-is-application-insights

Question #17*Topic 1*
HOTSPOT -
You have an Azure subscription named Subscription1. Subscription1 contains the resources in the following table.

Name	Type
RG1	Resource group
RG2	Resource group
VNet1	Virtual network
VNet2	Virtual network

VNet1 is in RG1. VNet2 is in RG2. There is no connectivity between VNet1 and VNet2.

An administrator named Admin1 creates an Azure virtual machine named VM1 in RG1. VM1 uses a disk named Disk1 and connects to VNet1. Admin1 then installs a custom application in VM1.
You need to move the custom application to VNet2. The solution must minimize administrative effort.
Which two actions should you perform? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

First action:

- Create a network interface in RG2.
- Detach a network interface.
- Delete VM1.
- Move a network interface to RG2.

Second action:

- Attach a network interface.
- Create a network interface in RG2.
- Create a new virtual machine.
- Move VM1 to RG2.

Hide Solution | Discussion 24

Correct Answer:

Answer Area

First action:

Create a network interface in RG2.
Detach a network interface.
Delete VM1.
Move a network interface to RG2.

Second action:

Attach a network interface.
Create a network interface in RG2.
Create a new virtual machine.
Move VM1 to RG2.

We cannot just move a virtual machine between networks. What we need to do is identify the disk used by the VM, delete the VM itself while retaining the disk, and recreate the VM in the target virtual network and then attach the original disk to it.
Reference:
https://blogs.technet.microsoft.com/canitpro/2014/06/16/step-by-step-move-a-vm-to-a-different-vnet-on-azure/ https://4sysops.com/archives/move-an-azure-vm-to-another-virtual-network-vnet/#migrate-an-azure-vm-between-vnets

Question #18*Topic 1*
You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Contains
storagecontoso1	A blob service and a table service
storagecontoso2	A blob service and a file service
storagecontoso3	A queue service
storagecontoso4	A file service and a queue service
storagecontoso5	A table service

You enable Storage Advanced Threat Protection (ATP) for all the storage accounts.
You need to identify which storage accounts will generate Storage ATP alerts.
Which two storage accounts should you identify? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

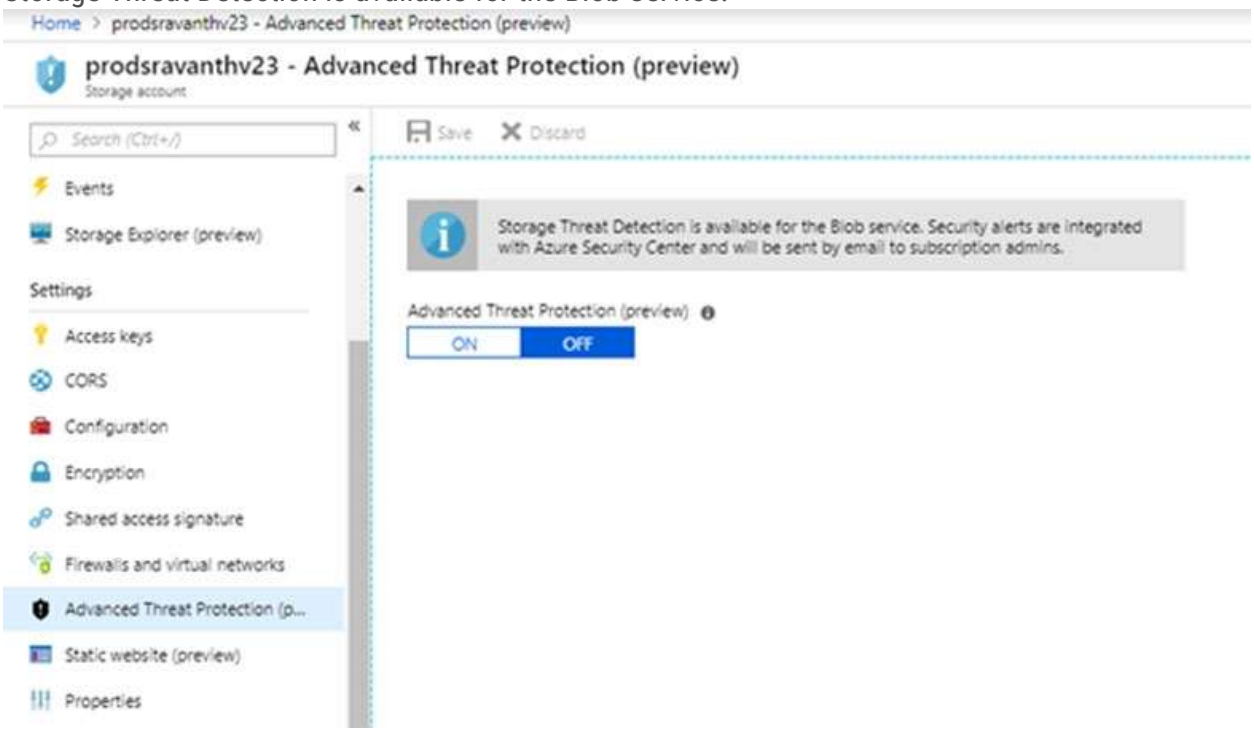
- A. storagecontoso1

- B. storagecontoso2
- C. storagecontoso3
- D. storagecontoso4
- E. storagecontoso5

Hide Solution | Discussion 15

Correct Answer: *AB*

Storage Threat Detection is available for the Blob Service.



Reference:
https://azure.microsoft.com/en-us/blog/advanced-threat-protection-for-azure-storage-now-in-public-preview/

Question #19*Topic 1*

HOTSPOT -

Your company has an Azure Container Registry named Registry1.

You have an Azure virtual machine named Server1 that runs Windows Server 2019.

From Server1, you create a container image named image1 and then tag image1.

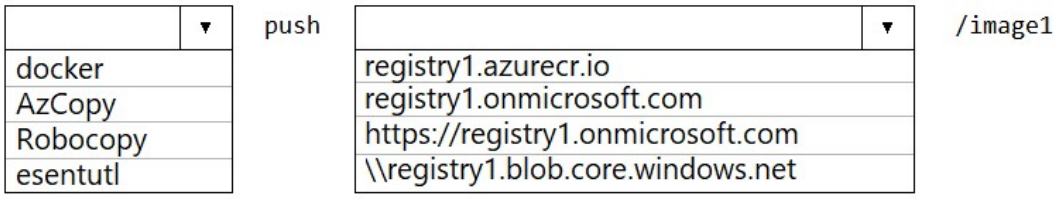
You need to add image1 to Registry1.

Which command should you run on Server1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

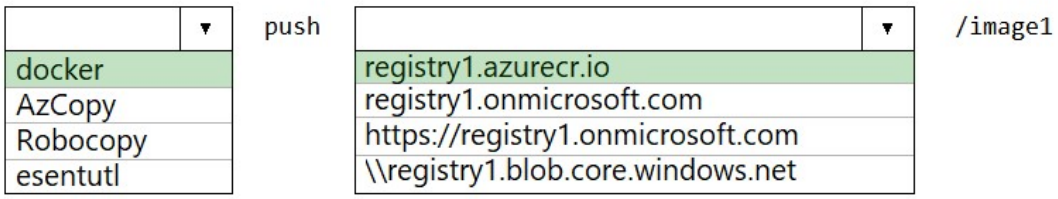
Answer Area



Hide Solution | Discussion 15

Correct Answer:

Answer Area



An Azure container registry stores and manages private Docker container images, similar to the way Docker Hub stores public Docker images. You can use the Docker command-line interface (Docker CLI) for login, push, pull, and other operations on your container registry.

Reference:

https://docs.microsoft.com/en-us/azure/container-registry/container-registry-get-started-docker-cli https://docs.docker.com/engine/reference/commandline/push/

Question #20*Topic 1*

HOTSPOT -

You are developing an Azure Web App. You configure TLS mutual authentication for the web app. You need to validate the client certificate in the web app. To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Property	Value
Client certificate location	HTTP request header / Client cookie / HTTP message body / URL query string
Encoding type	HTML / URL / Unicode / Base64

Hide Solution | Discussion 14

Correct Answer:

Answer Area

Property	Value
Client certificate location	**HTTP request header** / Client cookie / HTTP message body / URL query string
Encoding type	HTML / URL / Unicode / **Base64**

Question #21*Topic 1*

DRAG DROP -

You are designing a solution to secure a company's Azure resources. The environment hosts 10 teams. Each team manages a project and has a project manager, a virtual machine (VM) operator, developers, and contractors.

Project managers must be able to manage everything except access and authentication for users.

VM operators must be able to manage VMs, but not the virtual network or storage account to which they are connected. Developers and contractors must be able to manage storage accounts.

You need to recommend roles for each member.

What should you recommend? To answer, drag the appropriate roles to the correct employee types. Each role may be used once, more than once, or not at all.

You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Roles

- Owner
- Contributor
- Reader
- Virtual Machine Contributor
- Storage Account Contributor

Answer Area

Employee type	Role
Project manager	Role
VM operators	Role
Developers	Role
Contractors	Role

Hide Solution | Discussion 23

Correct Answer:

Roles

- Owner
- Contributor
- Reader
- Virtual Machine Contributor
- Storage Account Contributor

Answer Area

Employee type	Role
Project manager	Contributor
VM operators	Virtual Machine Contributor
Developers	Storage Account Contributor
Contractors	Storage Account Contributor

Question #22*Topic 1*

You have an Azure virtual machine named VM1 and an Azure Active Directory (Azure AD) tenant named adatum.com.
VM1 has the following settings:
- IP address: 10.10.0.10
- System-assigned managed identity: On

You need to create a script that will run from within VM1 to retrieve the authentication token of VM1.
Which address should you use in the script?

- A. vm1.adatum.com.onmicrosoft.com
- B. 169.254.169.254
- C. 10.10.0.10
- D. vm1.adatum.com

Hide Solution | Discussion 20

Correct Answer: *B*
Your code that's running on the VM can request a token from the Azure Instance Metadata Service identity endpoint, accessible only from within the VM:
http://169.254.169.254/metadata/identity/oauth2/token
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview

Question #23*Topic 1*
HOTSPOT -
Your company has a virtualization environment that contains the virtualization hosts shown in the following table.

Name	Hypervisor	Guest
Server1	VMware	VM1, VM2, VM3
Server2	Hyper-V	VMA, VMB, VMC

The virtual machines are configured as shown in the following table.

Name	Generation	Memory	Operating system (OS)	OS disk	Data disk
VM1	*Not applicable*	4 GB	Windows Server 2016	200 GB	800 GB
VM2	*Not applicable*	12 GB	Red Hat Enterprise Linux 7.2	3 TB	200 GB
VM3	*Not applicable*	32 GB	Windows Server 2012 R2	200 GB	1 TB
VMA	1	8 GB	Windows Server 2012	100 GB	2 TB
VMB	1	16 GB	Red Hat Enterprise Linux 7.2	150 GB	3 TB
VMC	2	24 GB	Windows Server 2016	500 GB	6 TB

All the virtual machines use basic disks. VM1 is protected by using BitLocker Drive Encryption (BitLocker).
You plan to migrate the virtual machines to Azure by using Azure Site Recovery.

You need to identify which virtual machines can be migrated.
Which virtual machines should you identify for each server? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

The virtual machines that can be migrated from Server1:

- VM1 only
- VM2 only
- VM3 only
- VM1 and VM2 only
- VM1 and VM3 only
- VM1, VM2, and VM3

The virtual machines that can be migrated from Server2:

- VMA only
- VMB only
- VMC only
- VMA and VMB only
- VMA and VMC only
- VMA, VMB, and VMC

Hide Solution | Discussion 27

Correct Answer:

Answer Area

The virtual machines that can be migrated from Server1:

- VM1 only
- VM2 only
- **VM3 only**
- VM1 and VM2 only
- VM1 and VM3 only
- VM1, VM2, and VM3

The virtual machines that can be migrated from Server2:

- VMA only
- VMB only
- VMC only
- **VMA and VMB only**
- VMA and VMC only
- VMA, VMB, and VMC

Incorrect Answers:
VM1 cannot be migrates as it has BitLocker enabled.
VM2 cannot be migrates as the OS disk on VM2 is larger than 2TB.
VMC cannot be migrates as the Data disk on VMC is larger than 4TB.

Reference:
https://docs.microsoft.com/en-us/azure/site-recovery/hyper-v-azure-support-matrix#azure-vm-requirements

Question #24*Topic 1*
You are designing an Azure solution.
The solution must meet the following requirements:
☞ Distribute traffic to different pools of dedicated virtual machines (VMs) based on rules.
☞ Provide SSL offloading capabilities.
You need to recommend a solution to distribute network traffic.
Which technology should you recommend?

- A. Azure Application Gateway
- B. Azure Load Balancer
- C. Azure Traffic Manager
- D. server-level firewall rules

Hide Solution Discussion 15
Correct Answer: *A*
If you require "SSL offloading", application layer treatment, or wish to delegate certificate management to Azure, you should use Azure's layer 7 load balancer
Application Gateway instead of the Load Balanacer.
Incorrect Answers:
D: Because Load Balancer is agnostic to the TCP payload and TLS offload ("SSL") is not provided.
Reference:
https://docs.microsoft.com/en-us/azure/application-gateway/overview

Question #25*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You manage an Active Directory domain named contoso.local.
You install Azure AD Connect and connect to an Azure Active Directory (Azure AD) tenant named contoso.com without syncing any accounts.
You need to ensure that only users who have a UPN suffix of contoso.com in the contoso.local domain sync to Azure AD.
Solution: You use Azure AD Connect to customize the synchronization options.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 26

Correct Answer: *B*

Instead use Synchronization Rules Editor to create a synchronization rule.

Note: Filtering what objects are synced to Azure AD is a common request and there are many instances where filtering by OU just doesn't cut it. One option is to filter users by their UPN suffix so that only users with the public FQDN as their UPN suffix are synced to Azure AD (e.g., john.doe@acme.com would be synced while jane.doe@internal.acme.com would not). Filtering can be configured using either the GUI (Synchronization Rules Editor) or PowerShell.

Reference:

https://www.sidekicktech.com/blog/field-notes/2019/upn-suffix-filtering-ad-connect/

Question #26*Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage an Active Directory domain named contoso.local.

You install Azure AD Connect and connect to an Azure Active Directory (Azure AD) tenant named contoso.com without syncing any accounts.

You need to ensure that only users who have a UPN suffix of contoso.com in the contoso.local domain sync to Azure AD.

Solution: You use Synchronization Rules Editor to create a synchronization rule.

Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 8

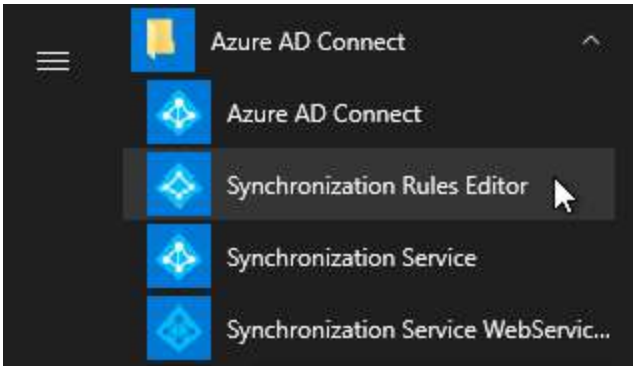
Correct Answer: *A*

Filtering what objects are synced to Azure AD is a common request and there are many instances where filtering by OU just doesn't cut it. One option is to filter users by their UPN suffix so that only users with the public FQDN as their UPN suffix are synced to Azure AD (e.g., john.doe@acme.com would be synced while jane.doe@internal.acme.com would not). Filtering can be configured using either the GUI or PowerShell.

Through GUI:

Using The Synchronization Rules Editor

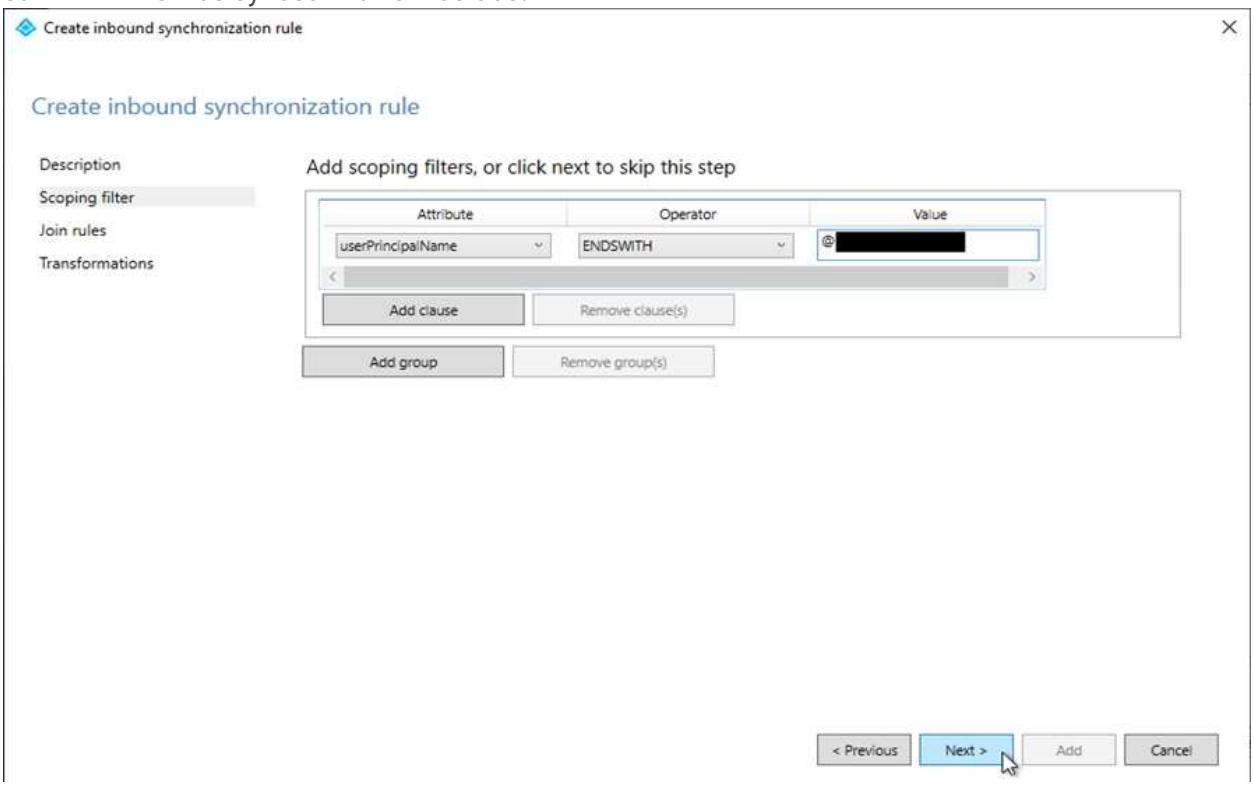
1. Open the Synchronization Rules Editor on the server where Azure AD Connect is installed.



2. Click the Add new rule button on the View and manage your synchronization rules window.
3. Fill out the appropriate fields on the Description tab and click Next >.
4. On the Scoping filter tab, click Add group, then Add clause, add a userPrincipalName attribute filter, and click Next >.

Attribute: userPrincipalName -

Operator: ENDSWITH -
Value: Your internal UPN suffix prefixed with @ (e.g., @internal.acme.com). Users with this UPN suffix will NOT be synced with Office 365.



Reference:
https://www.sidekicktech.com/blog/field-notes/2019/upn-suffix-filtering-ad-connect/

Question #27*Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You manage an Active Directory domain named contoso.local.
You install Azure AD Connect and connect to an Azure Active Directory (Azure AD) tenant named contoso.com without syncing any accounts.
You need to ensure that only users who have a UPN suffix of contoso.com in the contoso.local domain sync to Azure AD.
Solution: You use the Synchronization Service Manager to modify the Active Directory Domain Services (AD DS) Connector.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 16

Correct Answer: *B*
Instead use Synchronization Rules Editor to create a synchronization rule.
Note: Filtering what objects are synced to Azure AD is a common request and there are many instances where filtering by OU just doesn't cut it. One option is to filter users by their UPN suffix so that only users with the public FQDN as their UPN suffix are synced to Azure AD (e.g., john.doe@acme.com would be synced while jane.doe@internal.acme.com would not). Filtering can be configured using either the GUI (Synchronization Rules Editor) or PowerShell.
Reference:
https://www.sidekicktech.com/blog/field-notes/2019/upn-suffix-filtering-ad-connect/

Question #28*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an app named App1 that uses data from two on-premises Microsoft SQL Server databases named DB1 and DB2.
You plan to move DB1 and DB2 to Azure.
You need to implement Azure services to host DB1 and DB2. The solution must support server-side transactions across DB1 and DB2.
Solution: You deploy DB1 and DB2 to SQL Server on an Azure virtual machine.
Does this meet the goal?

- A. Yes

- B. No

Hide Solution | Discussion 11

Correct Answer: *A*

Understanding distributed transactions.

When both the database management system and client are under the same ownership (e.g. when SQL Server is deployed to a virtual machine), transactions are available and the lock duration can be controlled.

Reference:

https://docs.particular.net/nservicebus/azure/understanding-transactionality-in-azure

Question #29*Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Cosmos DB database that contains a container named Container1. The partition key for Container1 is set to /day. Container1 contains the items shown in the following table.

Name	Content
Item1	{ "id": "1", "day": "Mon", "value": "10" }
Item2	{ "id": "2", "day": "Mon", "value": "15" }
Item3	{ "id": "3", "day": "Tue", "value": "10" }
Item4	{ "id": "4", "day": "Wed", "value": "15" }

You need to programmatically query Azure Cosmos DB and retrieve Item1 and Item2 only.

Solution: You run the following query.

SELECT id FROM c -
WHERE c.day = "Mon" OR c.day = "Tue"
You set the EnableCrossPartitionQuery property to False.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution | Discussion 17

Correct Answer: *B*
Returns Item1 only as EnableCrossPartitionQuery property to False. If EnableCrossPartitionQuery property is set to true, it will return Item1, Item2, and Item3.
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/sql-query-where
https://docs.microsoft.com/en-us/dotnet/api/microsoft.azure.documents.client.feedoptions.enablecrosspartitionquery?view=azure-dotnet

Question #30*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Cosmos DB database that contains a container named Container1. The partition key for Container1 is set to /day. Container1 contains the items shown in the following table.

Name	Content
Item1	{ "id": "1", "day": "Mon", "value": "10" }
Item2	{ "id": "2", "day": "Mon", "value": "15" }
Item3	{ "id": "3", "day": "Tue", "value": "10" }
Item4	{ "id": "4", "day": "Wed", "value": "15" }

You need to programmatically query Azure Cosmos DB and retrieve Item1 and Item2 only.
Solution: You run the following query.

SELECT day FROM c -
WHERE c.value = "10" OR c.value = "15"
You set the EnableCrossPartitionQuery property to True.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 14

Correct Answer: *B*
Returns Item1, Item2, Item3, and Item4.
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/sql-query-where

Question #31*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Cosmos DB database that contains a container named Container1. The partition key for Container1 is set to /day. Container1 contains the items shown in the following table.

Name	Content
Item1	{ "id": "1", "day": "Mon", "value": "10" }
Item2	{ "id": "2", "day": "Mon", "value": "15" }
Item3	{ "id": "3", "day": "Tue", "value": "10" }
Item4	{ "id": "4", "day": "Wed", "value": "15" }

You need to programmatically query Azure Cosmos DB and retrieve Item1 and Item2 only.
Solution: You run the following query.

```
SELECT id FROM c
  WHERE c.day = "Mon"
```

You set the EnableCrossPartitionQuery property to True.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution | Discussion 22

Correct Answer: *A*
Returns Item1 and Item2 only.
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/sql-query-where
https://docs.microsoft.com/en-

us/dotnet/api/microsoft.azure.documents.client.feedoptions.enablecrosspartitionquery?view=azure-dotnet

Question #32*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You manage an Active Directory domain named contoso.local.
You install Azure AD Connect and connect to an Azure Active Directory (Azure AD) tenant named contoso.com without syncing any accounts.
You need to ensure that only users who have a UPN suffix of contoso.com in the contoso.local domain sync to Azure AD.
Solution: You use the Synchronization Service Manager to modify the Metaverse Designer tab.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 5
Correct Answer: *B*
Instead use Synchronization Rules Editor to create a synchronization rule.
Note: Filtering what objects are synced to Azure AD is a common request and there are many instances where filtering by OU just doesn't cut it. One option is to filter users by their UPN suffix so that only users with the public FQDN as their UPN suffix are synced to Azure AD (e.g., john.doe@acme.com would be synced while jane.doe@internal.acme.com would not). Filtering can be configured using either the GUI (Synchronization Rules Editor) or PowerShell.
Reference:
https://www.sidekicktech.com/blog/field-notes/2019/upn-suffix-filtering-ad-connect/

Question #33*Topic 1*
HOTSPOT -
You have an Azure subscription that contains a resource group named RG1.
You have a group named Group1 that is assigned the Contributor role for RG1.
You need to enhance security for the virtual machines in RG1 to meet the following requirements:
☞ Prevent Group1 from assigning external IP addresses to the virtual machines.
☞ Ensure that Group1 can establish a Remote Desktop connection to the virtual machines through a shared external IP address.
What should you use to meet each requirement? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Prevent Group1 from assigning external IP addresses to the virtual machines:

- Azure Policy
- Azure Bastion
- Virtual network service endpoints
- Azure Web Application Firewall (WAF)

Ensure that Group1 can establish a Remote Desktop connection to the virtual machines through a shared external IP address:

- Azure Policy
- Azure Bastion
- Virtual network service endpoints
- Azure Web Application Firewall (WAF)

Hide Solution | Discussion 4

Correct Answer:

Answer Area

Prevent Group1 from assigning external IP addresses to the virtual machines:

- Azure Policy
- Azure Bastion
- Virtual network service endpoints
- Azure Web Application Firewall (WAF)

Ensure that Group1 can establish a Remote Desktop connection to the virtual machines through a shared external IP address:

- Azure Policy
- Azure Bastion
- Virtual network service endpoints
- Azure Web Application Firewall (WAF)

Box 1: Azure Policy -
There is a built-in policy in the Azure Policy service that allows you to block public IPs on all NICs of a VM.
Note: Azure Policy is a powerful tool in your Azure toolbox. It allows you to enforce specific governance principals you want to see implemented in your environment. Some key examples of what Azure Policy allows you to do is:

Automatically tag resources -

- ▪
- ⇨ Block VMs from having a public IP
- ⇨ Enforce specific regions
- ⇨ Enforce VM size

Box 2: Azure Bastion -
Azure Bastion is a fully managed PaaS service that provides secure and seamless RDP and SSH access to your virtual machines directly through the Azure
Portal.

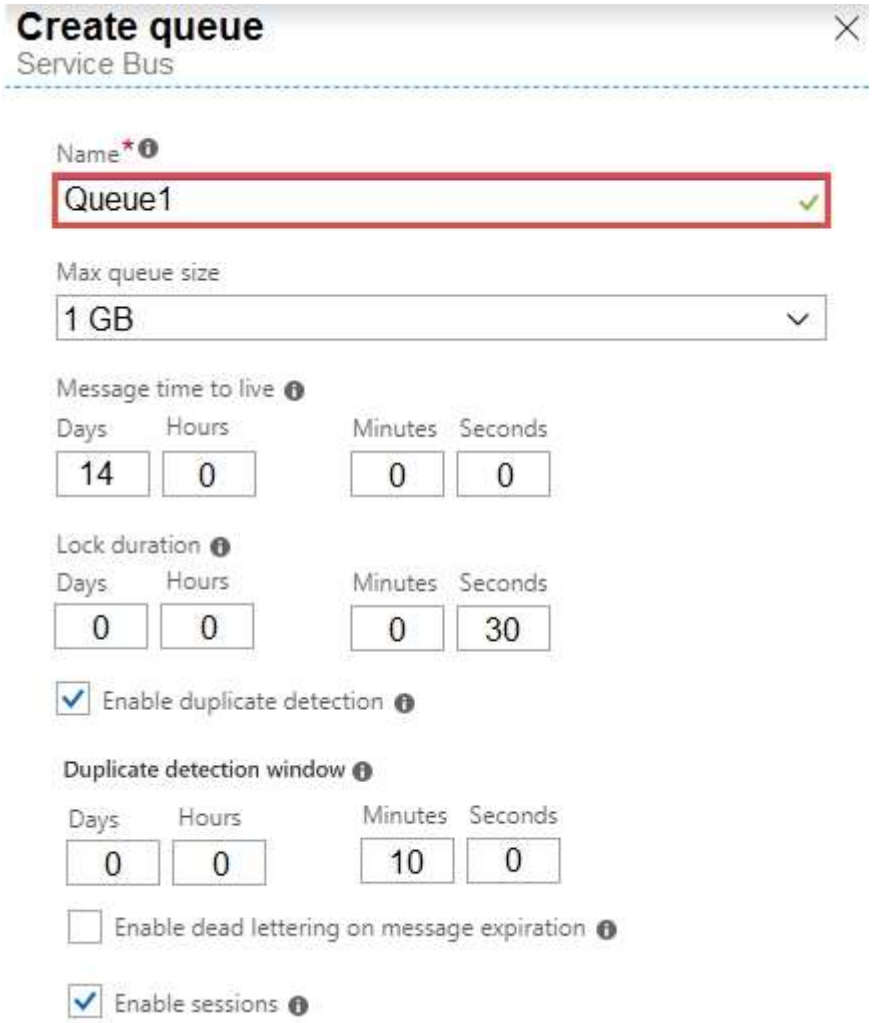
Azure Bastion is provisioned directly in your Virtual Network (VNet) and supports all VMs in your Virtual Network (VNet) using SSL without any exposure through public IP addresses.
Incorrect Answers:
Virtual Network (VNet) service endpoint provides secure and direct connectivity to Azure services over an optimized route over the Azure backbone network.
Endpoints allow you to secure your critical Azure service resources to only your virtual networks.
Service Endpoints enables private IP addresses in the VNet to reach the endpoint of an Azure service without needing a public IP address on the VNet.
Reference:
https://blog.nillsf.com/index.php/2019/11/02/using-azure-policy-to-deny-public-ips-on-specific-vnets/ https://azure.microsoft.com/en-us/services/azure-bastion/

Question #34*Topic 1*
You create a container image named Image1 on a developer workstation.
You plan to create an Azure Web App for Containers named WebAppContainer that will use Image1.
You need to upload Image1 to Azure. The solution must ensure that WebAppContainer can use Image1.
To which storage type should you upload Image1?

- A. an Azure Storage account that contains a blob container
- B. Azure Container Instances
- C. Azure Container Registry
- D. an Azure Storage account that contains a file share

Hide Solution Discussion 18
Correct Answer: *C*
Configure registry credentials in web app.
App Service needs information about your registry and image to pull the private image. In the Azure portal, go to Container settings from the web app and update the Image source, Registry and save.
Reference:
https://docs.microsoft.com/en-us/azure/devops/pipelines/targets/webapp-on-container-linux

Question #35*Topic 1*
You have an Azure Service Bus and two clients named Client1 and Client2.
You create a Service Bus queue named Queue1 as shown in the exhibit. (Click the Exhibit tab.)



Client1 send messages to Queue1 as shown in the following table.

Time hh:mm:ss	Message
12:01:01	M3
12:01:02	M2
12:01:03	M1
12:01:04	M3

Client2 reads the messages from Queue1 at 12:01:05.
How will the messages be presented to Client2?

- A. Client2 will read three messages in the following order: M1, M2, and then M3.
- B. Client2 will read three messages in the following order: M3, M1, and then M2.
- C. Client2 will read four messages in the following order: M3, M1, M2 and then M3.
- D. Client2 will read four messages in the following order: M3, M2, M1 and then M3.

Hide Solution Discussion 34

Correct Answer: *D*
It should be M3, M2, M1 as duplicate detection is enabled, and the duplication detection window is set to 10 minutes. The second M3 message in the queue would be discarded.
Note 1: Duplicate detection enables the sender resend the same message, and the queue or topic discards any duplicate copies.
Note 2: Queues offer First In, First Out (FIFO) message delivery to one or more competing consumers. That is, receivers typically receive and process messages in the order in which they were added to the queue, and only one message consumer receives and processes each message.
Reference:
https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-queues-topics-subscriptions https://docs.microsoft.com/en-us/azure/service-bus-messaging/duplicate-detection

Question #36*Topic 1*
You have an Azure Cosmos DB account named Account1. Account1 includes a database named DB1 that contains a container named Container1. The partition key for Container1 is set to /city.
You plan to change the partition key for Container1.
What should you do first?

- A. Delete Container1.
- B. Create a new container in DB1.
- C. Implement the Azure Cosmos DB.NET.SDK.
- D. Regenerate the keys for Account1.

Hide Solution | Discussion 19

Correct Answer: *B*
The Change Feed Processor and Bulk Executor Library, in Azure Cosmos DB can be leveraged to achieve a live migration of your data from one container to another. This allows you to re-distribute your data to match the desired new partition key scheme, and make the relevant application changes afterwards, thus achieving the effect of ɔ€updating your partition keyɔ€.
Incorrect Answers:
A: It is not possible to ɔ€updateɔ€ your partition key in an existing container.
Reference:
https://devblogs.microsoft.com/cosmosdb/how-to-change-your-partition-key/

Question #37*Topic 1*
HOTSPOT -
You have an Azure subscription that contains the Azure SQL servers shown in the following table.

Name	Region	In resource group
Sql1	West US	RG1
Sql2	West US	RG1

The subscription contains the elastic pools shown in the following table.

Name	On Azure SQL server
Pool1	Sql1
Pool2	Sql1
Pool3	Sql2

The subscription contains the Azure SQL databases shown in the following table.

Name	On Azure SQL server	Pool
DB1	Sql1	Pool1
DB2	Sql1	Pool2
DB3	Sql1	*None*

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
DB1 can be removed from Pool1 and added to Pool2.	○	○
DB2 can be removed from Pool2 and added to Pool3.	○	○
DB3 can be added to Pool1.	○	○

Hide Solution | Discussion 31

Correct Answer:

Answer Area

Statements	Yes	No
DB1 can be removed from Pool1 and added to Pool2.	○	○
DB2 can be removed from Pool2 and added to Pool3.	○	○
DB3 can be added to Pool1.	○	○

Note: You cannot add databases from different servers into the same pool

Box 1: Yes -
Pool2 contains DB2 but DB1 and DB2 are on Sql1. DB1 can thus be added to Pool2.

Box 2: Yes -
Pool3 is empty.

Box 3: Yes -
Pool1 contains DB1 but DB3 and DB1 are on Sql1. DB3 can thus be added to Pool1.
Reference:
https://docs.microsoft.com/en-us/azure/sql-database/sql-database-elastic-pool

Question #38*Topic 1*
HOTSPOT -
You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Kind	Performance tier	Replication	Location
storage1	StorageV2	Premium	Locally-redundant storage (LRS)	East US
storage2	Storage	Standard	Geo-redundant storage (GRS)	UK West
storage3	BlobStorage	Standard	Locally-redundant storage (LRS)	North Europe

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
storage1 can host Azure file shares.	○	○
There are six copies of the data in storage2.	○	○
storage3 can be converted to a GRS account.	○	○

Hide Solution | Discussion 82
Correct Answer:

Answer Area

Statements	Yes	No
storage1 can host Azure file shares.	○	○
There are six copies of the data in storage2.	○	○
storage3 can be converted to a GRS account.	○	○

Box 1: Yes -
General purpose version 2 (GPv2) storage accounts: GPv2 storage accounts allow you to deploy Azure file shares on standard/hard disk-based (HDD-based) hardware.

Box 2: No -
Four not six copies.
Geo-redundant storage (GRS) copies your data synchronously three times within a single physical location in the primary region using LRS. It then copies your data asynchronously to a single physical location in the secondary region.

Box 3: Yes -
You can switch a storage account from one type of replication to any other type.
To switch from LRS to GRS use Azure portal, PowerShell, or CLI to change the replication setting.
Reference:
https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share
https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy
https://docs.microsoft.com/en-us/azure/storage/common/redundancy-migration

Question #39*Topic 1*
You have an Azure subscription named Subscription1 that is used by several departments at your company. Subscription1 contains the resources in the following table.

Name	Type
storage1	Storage account
RG1	Resource group
container1	Blob container
share1	File share

Another administrator deploys a virtual machine named VM1 and an Azure Storage account named storage2 by using a single Azure Resource Manager template.
You need to view the template used for the deployment.

From the Azure Portal, for which blade can you view the template that was used for the deployment?

- A. container1
- B. VM1
- C. RG1
- D. storage2

Hide Solution Discussion 13

Correct Answer: *C*

You can verify the deployment by exploring the resource group from the Azure portal

Reference:

https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/deployment-manager-tutorial https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-create-first-template?tabs=azure-powershell

Question #40*Topic 1*

You have an Azure subscription that contains a resource group named RG1. RG1 contains multiple resources.

You need to trigger an alert when the resources in RG1 consume $1,000 USD.

What should you do?

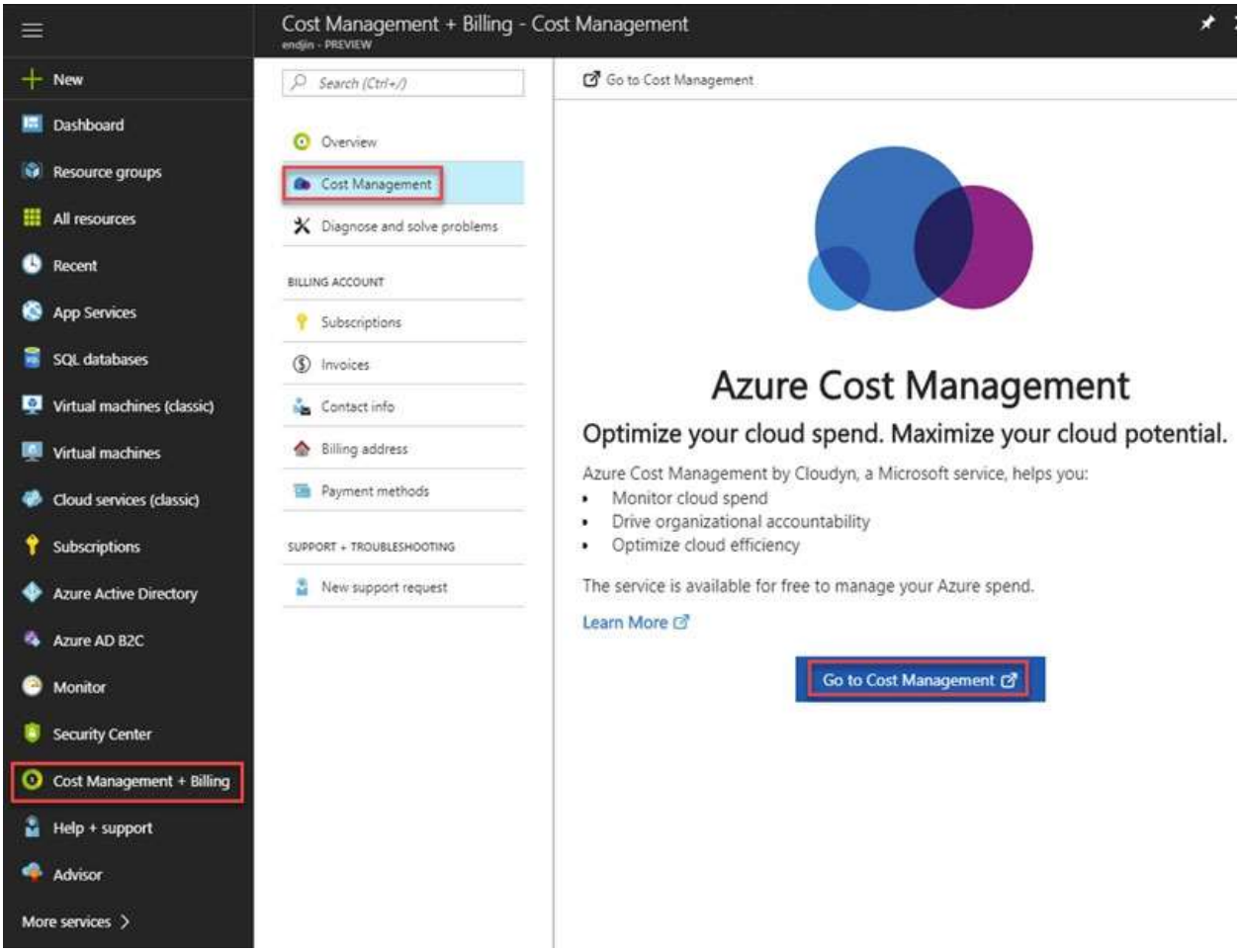
- A. From Cost Management + Billing, add a cloud connector.
- B. From the subscription, create an event subscription.
- C. From Cost Management + Billing, create a budget.
- D. From RG1, create an event subscription.

Hide Solution Discussion 6

Correct Answer: *C*

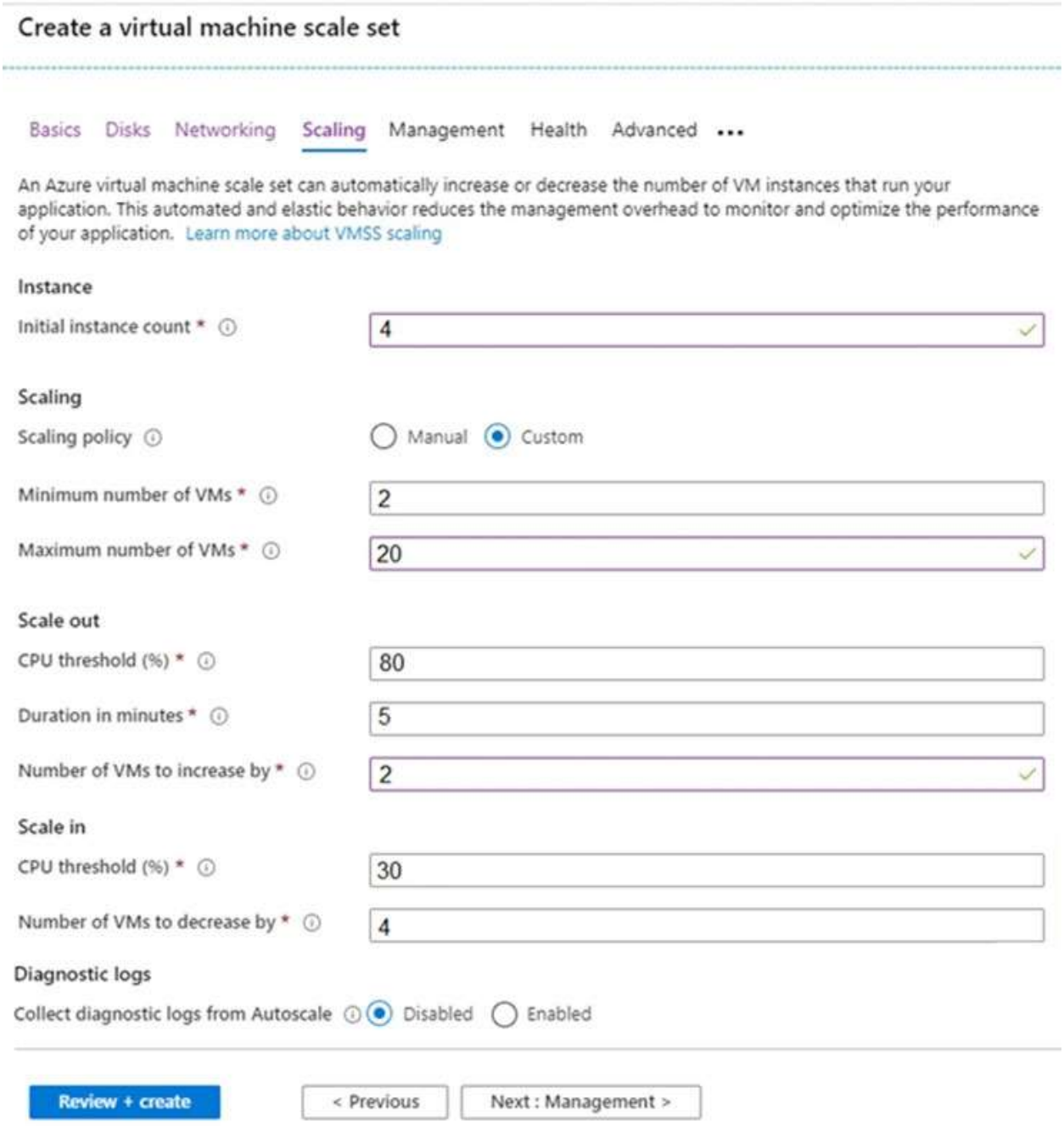
Create budgets to manage costs and create alerts that automatically notify you are your stakeholders of spending anomalies and overspending.

To set it up, go to the Azure Portal, select 'Cost Management + Billing' -> 'Cost Management' -> 'Go to Cost Management'.



Note: Cost alerts are automatically generated based when Azure resources are consumed. Alerts show all active cost management and billing alerts together in one place. When your consumption reaches a given threshold, alerts are generated by Cost Management. There are three types of cost alerts: budget alerts, credit alerts, and department spending quota alerts.
Reference:
https://docs.microsoft.com/en-us/azure/cost-management-billing/manage/getting-started

Question #41*Topic 1*
HOTSPOT -
You create a virtual machine scale set named Scale1. Scale1 is configured as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

If Scale1 is utilized at 85 percent for six minutes after it is deployed, Scale1 will be running **[answer choice].**

- 2 virtual machines
- 4 virtual machines
- 6 virtual machines
- 10 virtual machines
- 20 virtual machines

If Scale1 is first utilized at 25 percent for six minutes after it is deployed, and then utilized at 50 percent for six minutes, Scale1 will be running **[answer choice].**

- 2 virtual machines
- 4 virtual machines
- 6 virtual machines
- 8 virtual machines
- 10 virtual machines

Hide Solution | Discussion 18

Correct Answer:

Answer Area

If Scale1 is utilized at 85 percent for six minutes after it is deployed, Scale1 will be running **[answer choice].**

- 2 virtual machines
- 4 virtual machines
- **6 virtual machines**
- 10 virtual machines
- 20 virtual machines

If Scale1 is first utilized at 25 percent for six minutes after it is deployed, and then utilized at 50 percent for six minutes, Scale1 will be running **[answer choice].**

- **2 virtual machines**
- 4 virtual machines
- 6 virtual machines
- 8 virtual machines
- 10 virtual machines

Box 1:
The Autoscale scale out rule increases the number of VMs by 2 if the CPU threshold is 80% or higher. The initial instance count is 4 and rises to 6 when the 2 extra instances of VMs are added.
Box 2:
The Autoscale scale in rule decreases the number of VMs by 4 if the CPU threshold is 30% or lower. The initial instance count is 4 and thus cannot be reduced to
0 as the minimum instances is set to 2. Instances are only added when the CPU threshold reaches 80%.
Reference:
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-overview
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-best-practices
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-common-scale-patterns

Question #42*Topic 1*
You plan to automate the deployment of a virtual machine scale set that uses the Windows Server 2016 Datacenter image.
You need to ensure that when the scale set virtual machines are provisioned, they have web server

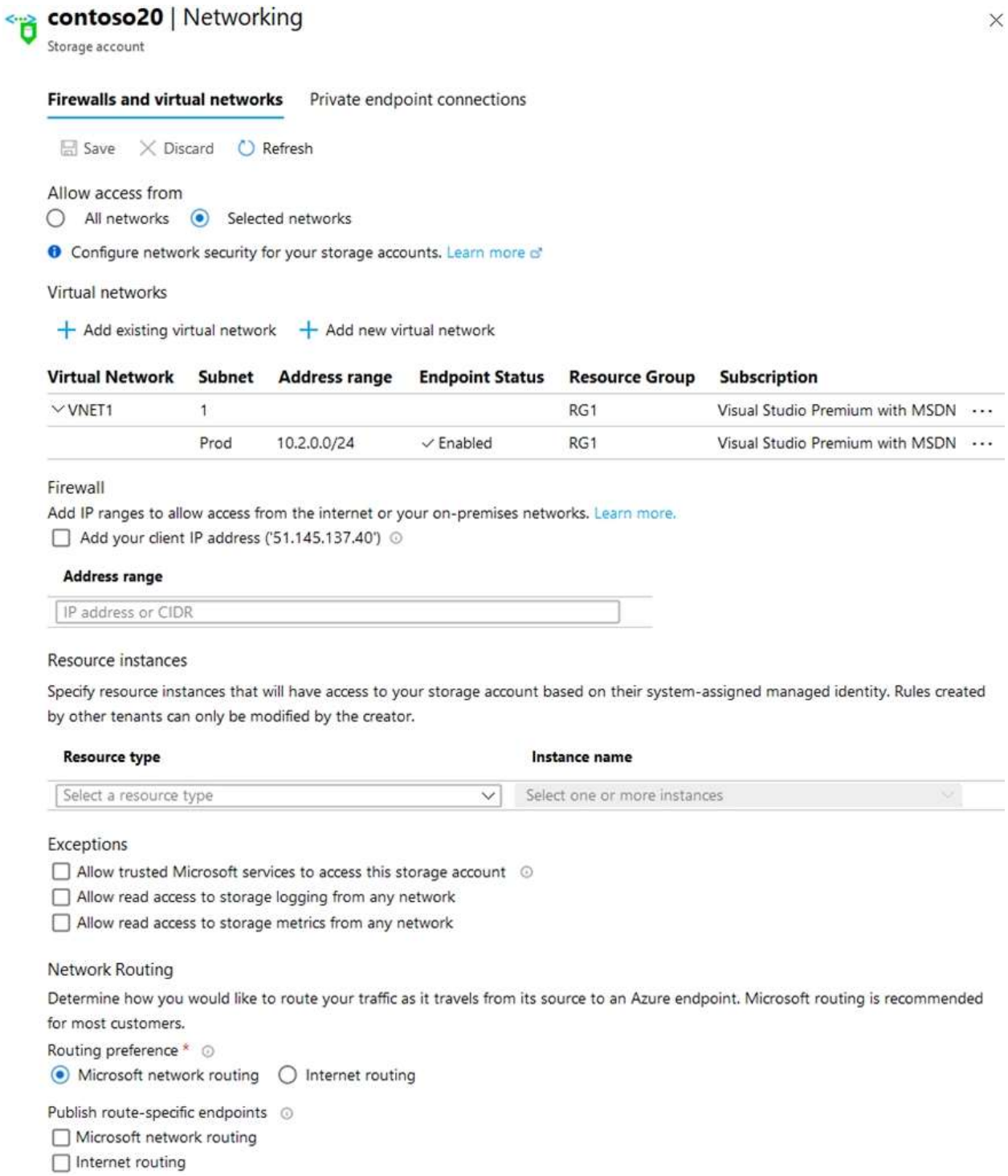
components installed.
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Upload a configuration script.
- B. Create an Azure policy.
- C. Modify the extensionProfile section of the Azure Resource Manager template.
- D. Create a new virtual machine scale set in the Azure portal.
- E. Create an automation account.

Hide Solution | Discussion 57

Correct Answer: *CD*
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/tutorial-install-apps-template

Question #43*Topic 1*
HOTSPOT -
You have several Azure virtual machines on a virtual network named VNet1. Vnet1 has two subnets that have 10.2.0.0/24 and 10.2.9.0/24 address spaces.
You configure an Azure Storage account as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The virtual machines on the 10.2.9.0/24 subnet will have network connectivity to the file shares in the storage account

- always
- during a backup
- never

Azure Backup will be able to back up the unmanaged hard disks of the virtual machines in the storage account

- always
- during a backup
- never

Hide Solution | Discussion 19

Correct Answer:

Answer Area

The virtual machines on the 10.2.9.0/24 subnet will have network connectivity to the file shares in the storage account

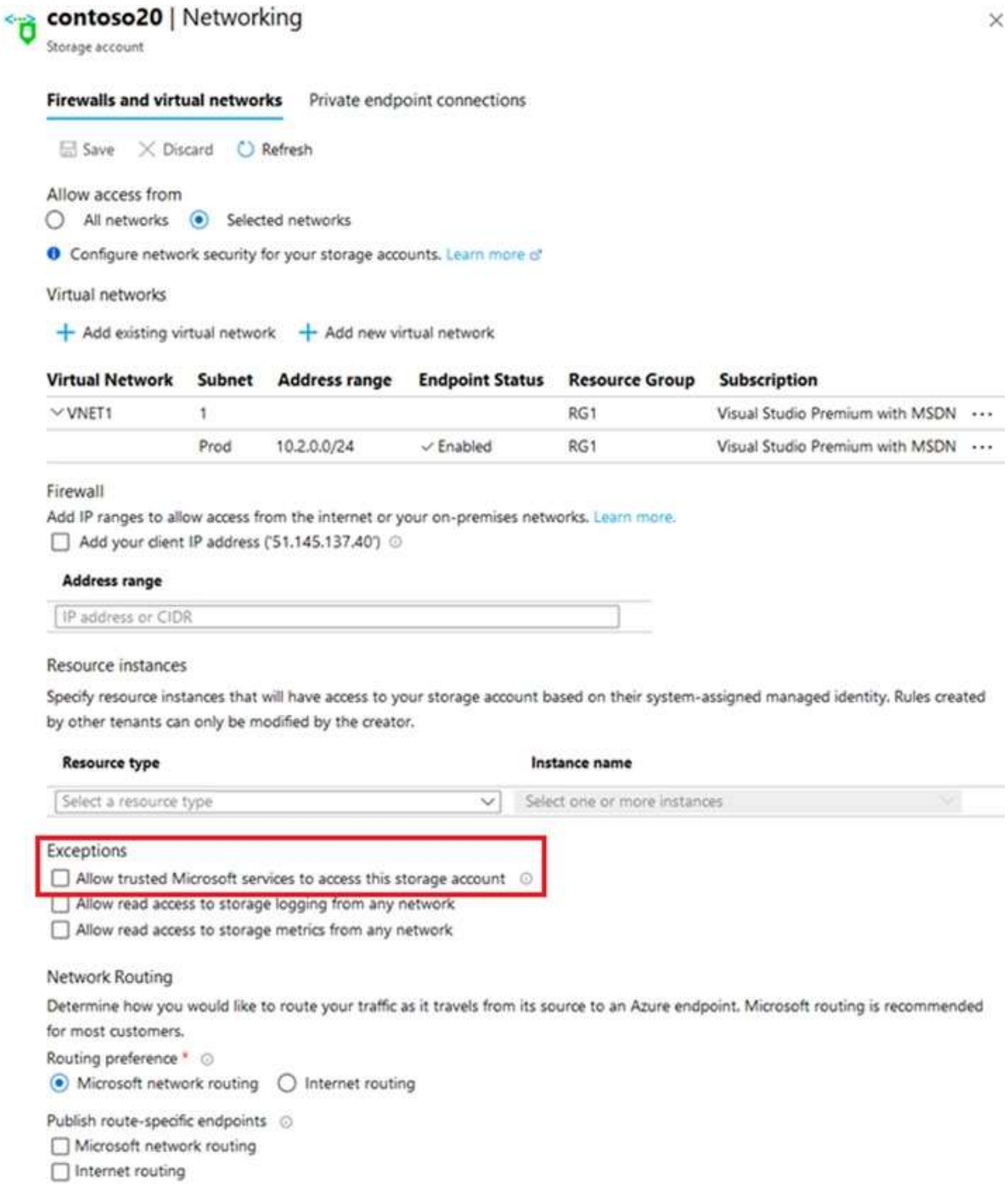
- always
- during a backup
- never

Azure Backup will be able to back up the unmanaged hard disks of the virtual machines in the storage account

- always
- during a backup
- never

Box 1: always -
Endpoint status is enabled.

Box 2: Never -
After you configure firewall and virtual network settings for your storage account, select Allow trusted Microsoft services to access this storage account as an exception to enable Azure Backup service to access the network restricted storage account.



Reference:
https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows
https://azure.microsoft.com/en-us/blog/azure-backup-now-supports-storage-accounts-secured-with-azure-storage-firewalls-and-virtual-networks/

Question #44*Topic 1*

HOTSPOT -
You create and save an Azure Resource Manager template named Template1 that includes the following four sections.
Section1.

```
{
    "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
    "contentVersion": "1.0.0.0",
    "parameters": {
        "windowsOSVersion": {
            "defaultValue": "2019-Datacenter",
            "allowedValues": [
                "2012-Datacenter",
                "2012-R2-Datacenter",
                "2016-Datacenter",
                "2019-Datacenter"
            ],
            }
        },
```

Section2.

```
    "variables": {
        "windowsOSVersion": "2012-Datacenter",
```

Section3.

```
    },
    "resources": [
      {
      "type": "Microsoft.Compute/virtualMachines",
```

Section4.

```
    "storageProfile": {
        "imageReference":{
            "publisher": "MicrosoftWindowsServer",
            "offer": "WindowsServer",
            "sku": "2012-R2-Datacenter",
            "version": "latest"
            },
```

You deploy Template1.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Windows Server 2012 R2 Datacenter will be deployed to the Azure virtual machine.	○	○
A custom image of Windows Server will be deployed.	○	○
During the deployment of Template1, an administrator will be prompted to select a version of Windows Server.	○	○

Hide Solution | Discussion 33

Correct Answer:

Answer Area

Statements	Yes	No
Windows Server 2012 R2 Datacenter will be deployed to the Azure virtual machine.	○	○
A custom image of Windows Server will be deployed.	○	○
During the deployment of Template1, an administrator will be prompted to select a version of Windows Server.	○	○

Question #45*Topic 1*

DRAG DROP -

You have virtual machines (VMs) that run a mission-critical application.

You need to ensure that the VMs never experience down time.

What should you recommend? To answer, drag the appropriate solutions to the correct scenarios.

Each solution may be used once, more than once, or not at all.

You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point

Select and Place:

Answer Area

Solutions	Scenario	Solution
Fault Domain	Maintain application performance across identical VMs.	
Availability Zone	Maintain application availability when an Azure datacenter fails.	
Availability Set	Maintain application performance across different VMs.	
Scale Sets		

Hide Solution | Discussion 45

Correct Answer:

Answer Area

Solutions	Scenario	Solution
Fault Domain	Maintain application performance across identical VMs.	Scale Sets
Availability Zone	Maintain application availability when an Azure datacenter fails.	Availability Set
Availability Set	Maintain application performance across different VMs.	Fault Domain
Scale Sets		

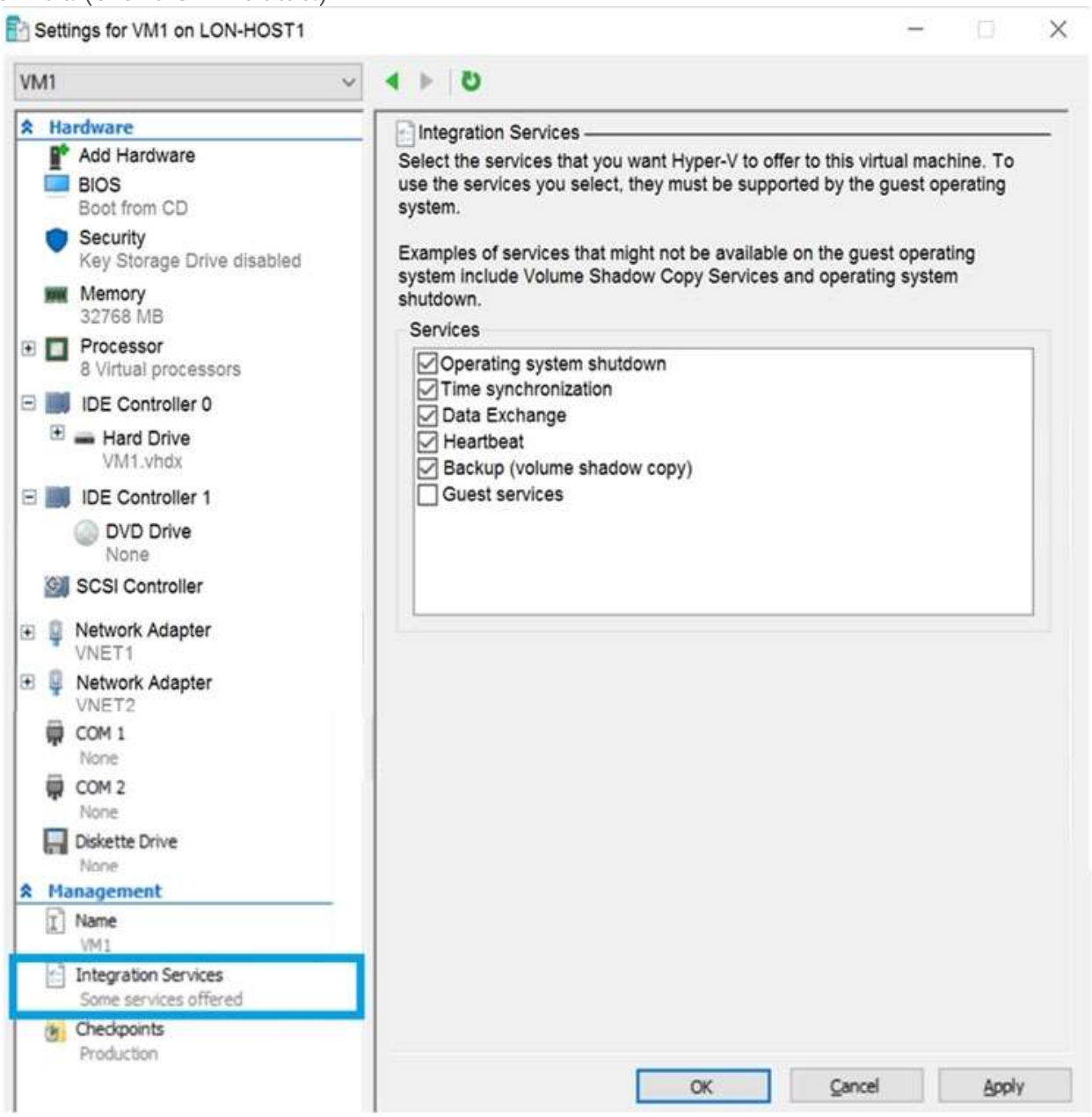
Box 1: Scale set -
A virtual machine scale set allows you to deploy and manage a set of identical, autoscaling virtual machines.

Box 2: Availability Set -
An Availability Set is a logical grouping capability for isolating VM resources from each other when they're deployed. Azure makes sure that the VMs you place within an Availability Set run across multiple physical servers, compute racks, storage units, and network switches. If a hardware or software failure happens, only a subset of your VMs are impacted and your overall solution stays operational. Availability Sets are essential for building reliable cloud solutions.

Box 3: Fault domain -
A fault domain is a logical group of underlying hardware that share a common power source and network switch, similar to a rack within an on-premises datacenter. As you create VMs within an availability set, the Azure platform automatically distributes your VMs across these fault domains. This approach limits the impact of potential physical hardware failures, network outages, or power interruptions.
Incorrect Answers:
An update domain is a group of VMs and underlying physical hardware that can be rebooted at the

same time.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-create-vmss
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets

Question #46*Topic 1*
You have an Azure subscription.
You have an on-premises virtual machine named VM1. The settings for VM1 are shown in the exhibit. (Click the Exhibit tab.)



You need to ensure that you can use the disks attached to VM1 as a template for Azure virtual machines.
What should you modify on VM1?

- A. the memory
- B. Integration Services
- C. the hard drive
- D. the network adapters
- E. the processor

Hide Solution | Discussion 4

Correct Answer: *C*

From the exhibit we see that the disk is in the VHDX format.

Before you upload a Windows virtual machines (VM) from on-premises to Microsoft Azure, you must prepare the virtual hard disk (VHD or VHDX). Azure supports only generation 1 VMs that are in the VHD file format and have a fixed sized disk. The maximum size allowed for the VHD is 1,023 GB. You can convert a generation 1 VM from the VHDX file system to VHD and from a dynamically expanding disk to fixed-sized.

Reference:

https://docs.microsoft.com/en-us/azure/virtual-machines/windows/prepare-for-upload-vhd-image?toc=azure virtual-machines windows toc.json

Question #47*Topic 1*

Your company has an office in Seattle.

You have an Azure subscription that contains a virtual network named VNET1.

You create a site-to-site VPN between the Seattle office and VNET1.

VNET1 contains the subnets shown in the following table.

Name	IP address space
Subnet1	10.1.1.0/24
GatewaySubnet	10.1.200.0/28

You need to route all Internet-bound traffic from Subnet1 to the Seattle office.

What should you create?

- A. a route for GatewaySubnet that uses the virtual network gateway as the next hop
- B. a route for Subnet1 that uses the local network gateway as the next hop
- C. a route for Subnet1 that uses the virtual network gateway as the next hop
- D. a route for GatewaySubnet that uses the local network gateway as the next hop

Hide Solution | Discussion 9

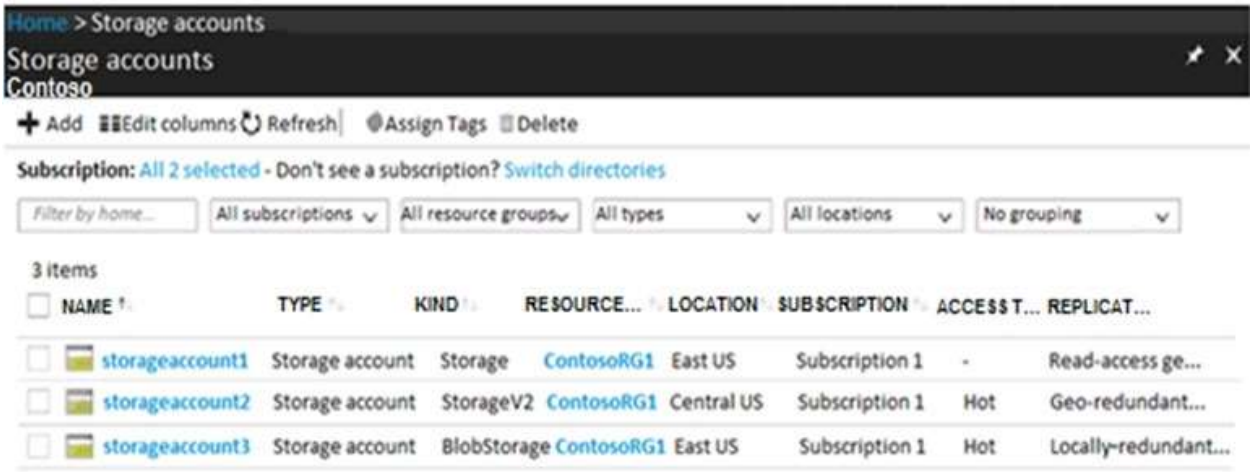
Correct Answer: *C*

A route with the 0.0.0.0/0 address prefix instructs Azure how to route traffic destined for an IP address that is not within the address prefix of any other route in a subnet's route table. When a subnet is created, Azure creates a default route to the 0.0.0.0/0 address prefix, with the Internet next hop type. We need to create a custom route in Azure to use a virtual network gateway in the Seattle office as the next hop.

Reference:

https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview

Question #48*Topic 1*
HOTSPOT -
You have Azure Storage accounts as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

You can use **[answer choice]** for Azure Table Storage.

- storageaccount1 only
- storageaccount2 only
- storageaccount3 only
- storageaccount1 and storageaccount2 only
- storageaccount2 and storageaccount3 only

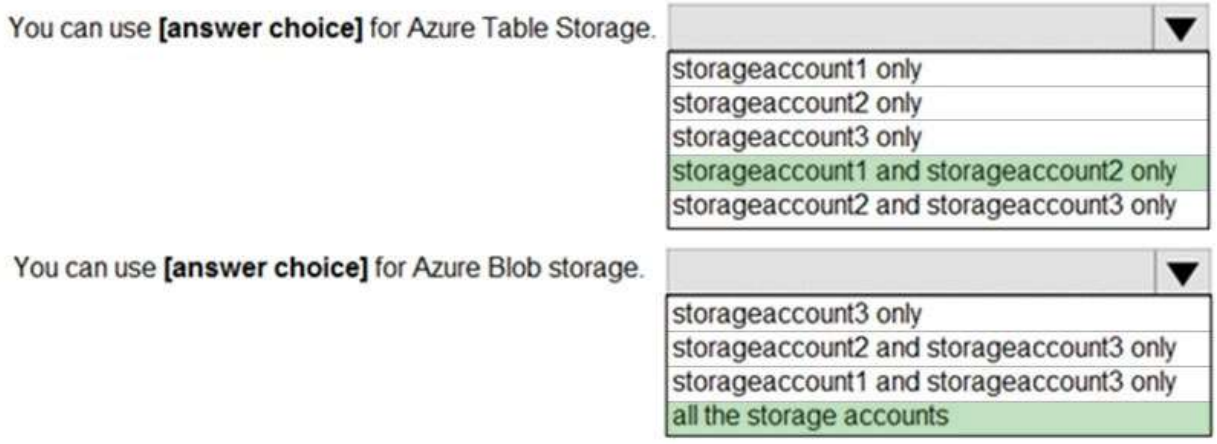
You can use **[answer choice]** for Azure Blob storage.

- storageaccount3 only
- storageaccount2 and storageaccount3 only
- storageaccount1 and storageaccount3 only
- all the storage accounts

Hide Solution | Discussion 5

Correct Answer:

Answer Area



Box 1: storageaccount1 and storageaccount2 only

Box 2: All the storage accounts -
Note: The three different storage account options are: General-purpose v2 (GPv2) accounts, General-purpose v1 (GPv1) accounts, and Blob storage accounts.
☞ General-purpose v2 (GPv2) accounts are storage accounts that support all of the latest features for blobs, files, queues, and tables.
☞ Blob storage accounts support all the same block blob features as GPv2, but are limited to supporting only block blobs.
☞ General-purpose v1 (GPv1) accounts provide access to all Azure Storage services, but may not have the latest features or the lowest per gigabyte pricing.
Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-account-options

Question #49*Topic 1*
You create an Azure virtual machine named VM1 in a resource group named RG1.
You discover that VM1 performs slower than expected.
You need to capture a network trace on VM1.
What should you do?

- A. From the VM1 blade, configure Connection troubleshoot.
- B. From Diagnostic settings for VM1, configure the performance counters to include network counters.
- C. From the VM1 blade, install performance diagnostics and run advanced performance analysis.
- D. From Diagnostic settings for VM1, configure the log level of the diagnostic agent.

Hide Solution Discussion 9

Correct Answer: *C*
The performance diagnostics tool helps you troubleshoot performance issues that can affect a Windows or Linux virtual machine (VM). Supported troubleshooting scenarios include quick checks on known issues and best practices, and complex problems that involve slow VM performance or high usage of CPU, disk space, or memory.
Advanced performance analysis, included in the performance diagnostics tool, includes all checks in the performance analysis, and collects one or more of the traces, as listed in the following sections. Use this scenario to troubleshoot complex issues that require additional traces. Running this scenario for longer periods will increase the overall size of diagnostics output, depending on the size of the VM and the trace options that are selected.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/troubleshooting/performance-diagnostics

Question #50*Topic 1*
You have an Azure subscription named Subscription1 that contains an Azure virtual network named VNet1. VNet1 connects to your on-premises network by using
Azure ExpressRoute.
You need to connect VNet1 to the on-premises network by using a site-to-site VPN. The solution must minimize cost.
Which three actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Create a gateway subnet.
- B. Create a VPN gateway that uses the VpnGw1 SKU.
- C. Create a connection.
- D. Create a local site VPN gateway.
- E. Create a VPN gateway that uses the Basic SKU.

Hide Solution Discussion 47
Correct Answer: *CDE*
Reference:
https://docs.microsoft.com/en-za/archive/blogs/canitpro/step-by-step-configuring-a-site-to-site-vpn-gateway-between-azure-and-on-premise

Question #51*Topic 1*
Your network contains an on-premises Active Directory domain named contoso.com. The domain contains the users shown in the following table.

Name	Member of
User1	Domain Admins
User2	Domain Users
User3	ADSyncAdmins
User4	Account Operators

You plan to install Azure AD Connect and enable SSO.

You need to specify which user to use to enable SSO. The solution must use the principle of least privilege.
Which user should you specify?

- A. User3
- B. User2
- C. User1
- D. User4

Hide Solution | Discussion 22

Correct Answer: *C*
You need to have domain administrator credentials for each Active Directory forest that:
➪ You synchronize to Azure AD through Azure AD Connect.
➪ Contains users you want to enable for Seamless SSO.
Note: The domain administrator credentials are not stored in Azure AD Connect or in Azure AD. They're used only to enable Seamless SSO through Azure AD
Connect.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sso-quick-start

Question #52*Topic 1*
HOTSPOT -
You have an Azure subscription that contains the resource groups shown in the following table.

Name	Region
RG1	East US
RG2	West US

RG1 contains the virtual machines shown in the following table.

Name	Region
VM1	West US
VM2	West US
VM3	West US
VM4	West US

RG2 contains the virtual machines shown in the following table.

Name	Region
VM5	East US 2
VM6	East US 2
VM7	West US
VM8	West US 2

All the virtual machines are configured to use premium disks and are accessible from the Internet.
VM1 and VM2 are in an availability set named AVSET1. VM3 and VM4 are in the same availability

zone. VM5 and VM6 are in different availability zones.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
VM1 is eligible for a Service Level Agreement (SLA) of 99.95 percent.	○	○
VM3 is eligible for a Service Level Agreement (SLA) of 99.99 percent.	○	○
VM5 is eligible for a Service Level Agreement (SLA) of 99.99 percent.	○	○

Hide Solution | Discussion 48

Correct Answer:

Answer Area

Statements	Yes	No
VM1 is eligible for a Service Level Agreement (SLA) of 99.95 percent.	○	○
VM3 is eligible for a Service Level Agreement (SLA) of 99.99 percent.	○	○
VM5 is eligible for a Service Level Agreement (SLA) of 99.99 percent.	○	○

Box 1: Yes -
VM1 and VM2 are in an available set named AVSET1.
For all Virtual Machines that have two or more instances deployed in the same Availability Set, we [Microsoft] guarantee you will have Virtual Machine Connectivity to at least one instance at least 99.95% of the time.

Box 2: No -
VM3 and VM4 are in the same availability zone and are in an availability set named AVSET2.

Box 3: Yes -
VM5 and VM6 are in different availability zones.
For all Virtual Machines that have two or more instances deployed across two or more Availability Zones in the same Azure region, we [Microsoft] guarantee you will have Virtual Machine

Connectivity to at least one instance at least 99.99% of the time.
Reference:
https://azure.microsoft.com/en-us/support/legal/sla/virtual-machines/v1_8/

Question #53*Topic 1*
A company plans to use third-party application software to perform complex data analysis processes. The software will use up to 500 identical virtual machines
(VMs) based on an Azure Marketplace VM image.
You need to design the infrastructure for the third-party application server. The solution must meet the following requirements:
☞ The number of VMs that are running at any given point in time must change when the user workload changes.
☞ When a new version of the application is available in Azure Marketplace it must be deployed without causing application downtime.
☞ Use VM scale sets.
☞ Minimize the need for ongoing maintenance.
Which two technologies should you recommend? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. single placement group
- B. single storage account
- C. managed disks
- D. autoscale

Hide Solution Discussion 14
Correct Answer: *CD*

Question #54*Topic 1*
You have a resource group named RG1 that contains the following:
☞ A virtual network that contains two subnets named Subnet1 and AzureFirewallSubnet
☞ An Azure Storage account named contososa1
☞ An Azure firewall deployed to AzureFirewallSubnet
You need to ensure that contososa1 is accessible from Subnet1 over the Azure backbone network.
What should you do?

- A. Modify the Firewalls and virtual networks settings for contososa1.
- B. Create a stored access policy for contososa1.
- C. Implement a virtual network service endpoint.
- D. Remove the Azure firewall.

Hide Solution Discussion 21

Correct Answer: *C*
Storage firewall rules apply to the public endpoint of a storage account. You don't need any firewall access rules to allow traffic for private endpoints of a storage account. The process of approving the creation of a private endpoint grants implicit access to traffic from the subnet that hosts the private endpoint.
Note: Storage accounts have a public endpoint that is accessible through the internet. ou can also create Private Endpoints for your storage account, which assigns a private IP address from your VNet to the storage account, and secures all traffic between your VNet and the storage account over a private link. The
Azure storage firewall provides access control access for the public endpoint of your storage account. You can also use the firewall to block all access through the public endpoint when using private endpoints. Your storage firewall configuration also enables select trusted Azure platform services to access the storage account securely.
Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-network-security

Question #55*Topic 1*
You have an Azure subscription that contains 100 virtual machines.
You have a set of PowerShell scripts that validate the virtual machine environment.
You need to run the scripts whenever there is an operating system update on the virtual machines.
The solution must minimize implementation time and recurring costs.
Which three resources should you use to implement the scripts? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. an alert action group
- B. an Azure Monitor query
- C. an Azure Automation runbook
- D. a virtual machine that has network access to the 100 virtual machines
- E. an alert rule

Hide Solution Discussion 9
Correct Answer: *ACE*
E: Step 1: Create alert -
In your Automation account, select Alerts under Monitoring, and then select New alert rule.
A: Step 2: Configure action groups for your alerts
Once you have your alerts configured, you can set up an action group, which is a group of actions to use across multiple alerts. The actions can include email notifications, runbooks, webhooks, and much more.
C: Use an Azure Automation runbook to run the powershell scripts.
Note: The Azure Automation Process Automation feature supports several types of runbooks, such as the PowerShell runbook, which is a text runbook based on
Windows PowerShell.scripting.

Reference:
https://docs.microsoft.com/en-us/azure/automation/update-management/configure-alerts
https://docs.microsoft.com/en-us/azure/automation/automation-runbook-types

Question #56*Topic 1*
You have an Active Directory forest named contoso.com.
You install and configure Azure AD Connect to use password hash synchronization as the single sign-on (SSO) method. Staging mode is enabled.
You review the synchronization results and discover that the Synchronization Service Manager does not display any sync jobs.
You need to ensure that the synchronization completes successfully.
What should you do?

- A. Run Azure AD Connect and disable staging mode.
- B. From Synchronization Service Manager, run a full import.
- C. Run Azure AD Connect and set the SSO method to Pass-through Authentication.
- D. From Azure PowerShell, run Start-AdSyncSyncCycle ‚€"PolicyType Initial.

Hide Solution Discussion 9
Correct Answer: *A*
In staging mode, the server is active for import and synchronization, but it does not run any exports. A server in staging mode is not running password sync or password writeback, even if you selected these features during installation. When you disable staging mode, the server starts exporting, enables password sync, and enables password writeback.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sync-staging-server https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sync-operations

Question #57*Topic 1*
Your on-premises network contains 100 virtual machines that run Windows Server 2019.
You have an Azure subscription that contains an Azure Log Analytics workspace named Workspace1.
You need to collect errors from the Windows event logs on the virtual machines.
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Create an Azure Event Grid domain.
- B. Deploy the Microsoft Monitoring Agent.
- C. Configure Windows Event Forwarding on the virtual machines.
- D. Create an Azure Sentinel workspace.
- E. Configure the Data Collection settings for Workspace1.

Hide Solution Discussion 7

Correct Answer: *BE*

The Azure Log Analytics agent collects telemetry from Windows and Linux virtual machines in any cloud, on-premises machines, and those monitored by System
Center Operations Manager and sends it collected data to your Log Analytics workspace in Azure Monitor.
Note: You may also see the Log Analytics agent referred to as the Microsoft Monitoring Agent (MMA) or OMS Linux agent.
Data is collected using the Log Analytics agent, which reads various security-related configurations and event logs from the machine and copies the data to your workspace for analysis.
Reference:
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/log-analytics-agent
https://docs.microsoft.com/en-us/azure/security-center/security-center-enable-data-collection

Question #58*Topic 1*

You have an Azure subscription named Subscription1.
You deploy a Linux virtual machine named VM1 to Subscription1.
You need to monitor the metrics and the logs of VM1.
What should you use?

- A. Azure HDInsight
- B. Azure Analysis Services
- C. Linux Diagnostic Extension (LAD) 3.0
- D. the AzurePerformanceDiagnostics extension

Hide Solution Discussion 36

Correct Answer: *D*

You can use extensions to configure diagnostics on your VMs to collect additional metric data. The basic host metrics are available, but to see more granular and VM-specific metrics, you need to install the Azure diagnostics extension on the VM. The Azure diagnostics extension allows additional monitoring and diagnostics data to be retrieved from the VM.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-monitoring

Question #59*Topic 1*

HOTSPOT -
You plan to deploy five virtual machines to a virtual network subnet.
Each virtual machine will have a public IP address and a private IP address.
Each virtual machine requires the same inbound and outbound security rules.
What is the minimum number of network interfaces and network security groups that you require?
To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Minimum number of network interfaces: [▼]
- 5
- 10
- 15
- 20

Minimum number of network security groups: [▼]
- 1
- 2
- 5
- 10

Hide Solution | Discussion 10

Correct Answer:

Answer Area

Minimum number of network interfaces: [▼]
- 5 (selected)
- 10
- 15
- 20

Minimum number of network security groups: [▼]
- 1 (selected)
- 2
- 5
- 10

Box 1: 5 -
We have five virtual machines. Each virtual machine will have a public IP address and a private IP address. Each will require a network interface.

Box 2: 1 -
Each virtual machine requires the same inbound and outbound security rules. We can add tem to one group.
Reference:
https://blogs.msdn.microsoft.com/igorpag/2016/05/14/azure-network-security-groups-nsg-best-practices-and-lessons-learned/ https://docs.microsoft.com/en-us/azure/virtual-network/security-overview

Question #60*Topic 1*
You have an Azure subscription named Subscription1 that includes an Azure File share named share1.
You create several Azure virtual machines in Subscription1. All of the virtual machines belong to the same virtual network.
You have an on-premises Hyper-V server named Server1. Server1 hosts a virtual machine named VM1.
You plan to replicate VM1 to Azure.
You need to create additional objects in Subscription1 to support the planned deployment.
Which three objects should you create? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Hyper-V site
- B. Azure Recovery Services Vault
- C. storage account
- D. replication policy
- E. Azure Traffic Manager instance
- F. endpoint

Hide Solution Discussion 51

Correct Answer: *ABD*

Question #61*Topic 1*
You manage an Active Directory domain named contoso.local.
You install Azure AD Connect and connect to an Azure Active Directory (Azure AD) tenant named contoso.com without syncing any accounts.
You need to ensure that only users who have a UPN suffix of contoso.com in the contoso.local domain sync to Azure AD.
What should you do?

- A. Use the Synchronization Service Manager to modify the Metaverse Designer tab.

- B. Use Azure AD Connect to customize the synchronization options.
- C. Use the Synchronization Rules Editor to create a synchronization rule.
- D. Use Synchronization Service Manager to modify the Active Directory Domain Services (AD DS) Connector.

Hide Solution | Discussion 10

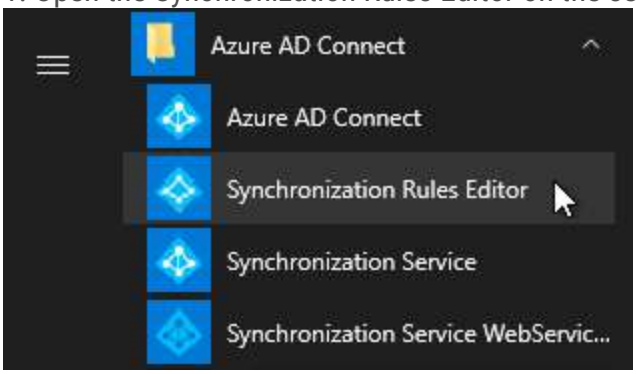
Correct Answer: *C*

Filtering what objects are synced to Azure AD is a common request and there are many instances where filtering by OU just doesn't cut it. One option is to filter users by their UPN suffix so that only users with the public FQDN as their UPN suffix are synced to Azure AD (e.g., john.doe@acme.com would be synced while jane.doe@internal.acme.com would not). Filtering can be configured using either the GUI or PowerShell.

Through GUI:

Using The Synchronization Rules Editor

1. Open the Synchronization Rules Editor on the server where Azure AD Connect is installed.

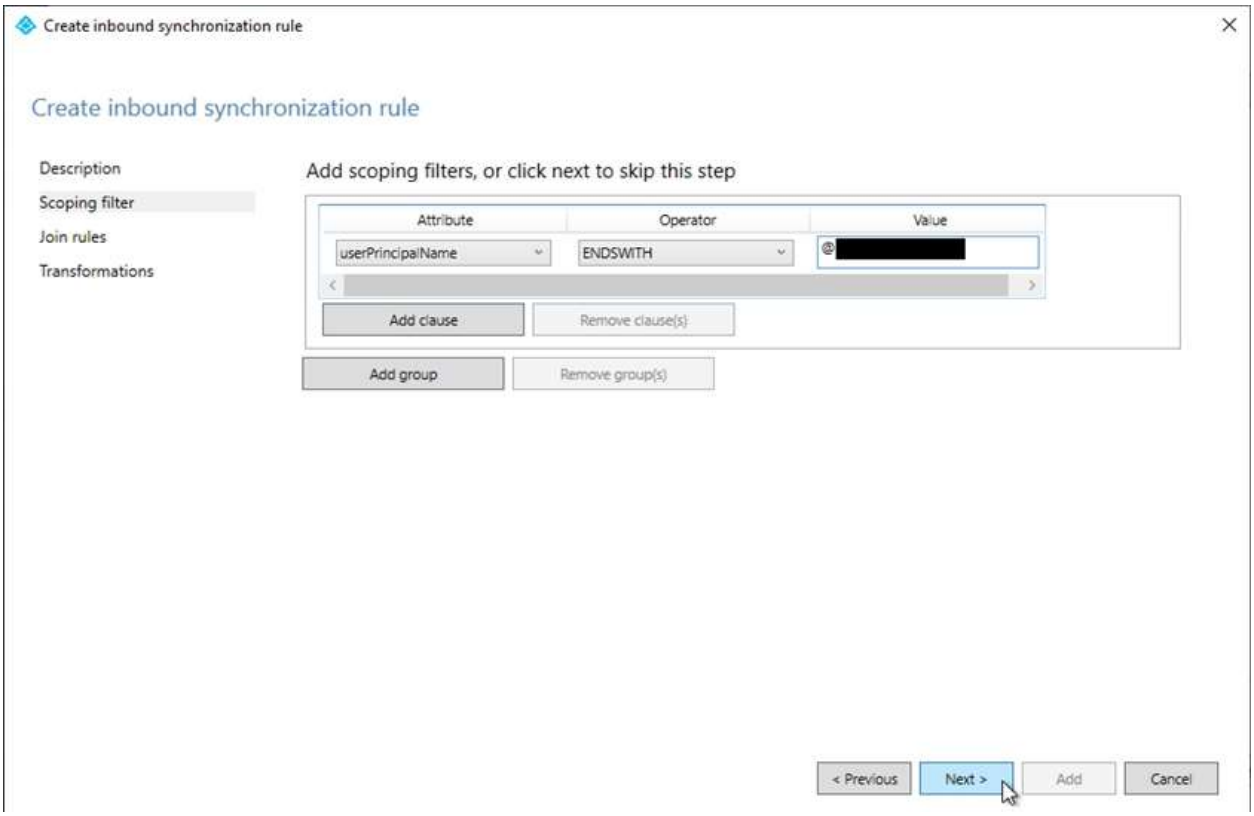


2. Click the Add new rule button on the View and manage your synchronization rules window.
3. Fill out the appropriate fields on the Description tab and click Next >.
4. On the Scoping filter tab, click Add group, then Add clause, add a userPrincipalName attribute filter, and click Next >.

Attribute: userPrincipalName -

Operator: ENDSWITH -

Value: Your internal UPN suffix prefixed with @ (e.g., @internal.acme.com). Users with this UPN suffix will NOT be synced with Office 365.



Reference:
https://www.sidekicktech.com/blog/field-notes/2019/upn-suffix-filtering-ad-connect/

Question #62*Topic 1*
You have an Azure SQL database named DB1.
You plan to create the following four tables in DB1 by using the following code.
Table1.

```
CREATE TABLE Table1
(
     StudentId INT IDENTITY PRIMARY KEY,
     PersonId INT REFERENCES Table4 (PersonId),
     Email NVARCHAR(256)
)
```

Table2.

```
CREATE TABLE Table2
(
     StudentId INT REFERENCES Table1 (StudentId),
     CourseId INT REFERENCES Table3 (CourseId),
     Grade DECIMAL(5,2) CHECK (Grade <= 100.00),
     Attempt TINYINT
)
```

Table3.

```
CREATE TABLE Table3
(
     CourseId INT IDENTITY PRIMARY KEY,
     Name NVARCHAR(56) NOT NULL,
     Teacher NVARCHAR(256) NOT NULL
)
```

Table4.

```
CREATE TABLE Table4
(
     PersonId INT IDENTITY PRIMARY KEY,
     FirstName NVARCHAR(128) NOT NULL,
     MiddleInitial NVARCHAR(10),
     LastName NVARCHAR(128) NOT NULL,
     DateOfBirth DATE NOT NULL
)
```

You need to identify which table must be created last.
What should you identify?

- A. Table1
- B. Table2
- C. Table3
- D. Table4

Hide Solution | Discussion 7

Correct Answer: *B*

Table1 references Table4. Therefore Table4 must be created before Table1.
Table2 references Table1 and Table3. Therefore Table1 and Table3 must be created before Table2.
Note: FOREIGN KEY REFERENCES is a constraint that provides referential integrity for the data in the column or columns. FOREIGN KEY constraints require that each value in the column exists in the corresponding referenced column or columns in the referenced table. FOREIGN KEY constraints can reference only columns that are PRIMARY KEY or UNIQUE constraints in the referenced table or columns referenced in a UNIQUE INDEX on the referenced table.
Incorrect Answers:
A: Table1 is referenced by Table2 and should be crated before Table2.
C: Table3 is referenced by Table2 and should be crated before Table2.
D: Table4 is referenced by Table1 and should be crated before Table1.
Reference:
https://docs.microsoft.com/en-us/sql/t-sql/statements/create-table-transact-sql?view=sql-server-ver15

Question #63*Topic 1*

You have an Azure Cosmos DB account named Account1. Account1 includes a database named DB1 that contains a container named Container1. The partition key for Container1 is set to /city.
You plan to change the partition key for Container1.
What should you do first?

- A. Delete Container1.
- B. Create a new Azure Cosmos DB account.
- C. Implement the Azure Cosmos DB .NET SDK.
- D. Regenerate the keys for Account1.

Hide Solution | Discussion 19

Correct Answer: *B*
The Change Feed Processor and Bulk Executor Library, in Azure Cosmos DB can be leveraged to achieve a live migration of your data from one container to another. This allows you to re-distribute your data to match the desired new partition key scheme, and make the relevant application changes afterwards, thus achieving the effect of ‚€updating your partition key‚€.
Incorrect Answers:
A: It is not possible to ‚€update‚€ your partition key in an existing container.
Reference:
https://devblogs.microsoft.com/cosmosdb/how-to-change-your-partition-key/

Question #64*Topic 1*
You have an Azure subscription that contains the resource groups shown in the following table.

Name	Region
RG1	West US
RG2	West US
RG3	East US

You have the Azure SQL servers shown in the following table.

Name	Region	In resource group
Sql1	West US	RG1
Sql2	East US	RG2
Sql3	West US	RG3
Sql4	West US	RG1

You create an Azure SQL database named DB1 on Sql1 in an elastic pool named Pool1.
You need to create an Azure SQL database named DB2 in Pool1.
Where should you deploy DB2?

- A. Sql1
- B. Sql2
- C. Sql3
- D. Sql4

Hide Solution Discussion 8

Correct Answer: *A*

The databases in an elastic pool are on a single Azure SQL Database server and share a set number of resources at a set price.

Reference:

https://docs.microsoft.com/en-us/azure/sql-database/sql-database-elastic-pool

Question #65*Topic 1*

HOTSPOT -

You deploy an Azure virtual machine scale set named VSS1 that contains 30 virtual machine instances across three zones in the same Azure region. The instances host an application named App1 that must be accessible by using HTTP and HTTPS traffic. Currently, VSS1 is inaccessible from the internet.

You need to use Azure Load Balancer to provide access to App1 across all the instances from the internet by using a single IP address.

What should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Minimum number of network security groups (NSGs) to create:

- 1
- 3
- 30

Objects to assign to the network security groups (NSGs):

- 1 subnet
- 3 subnets
- 30 network interfaces

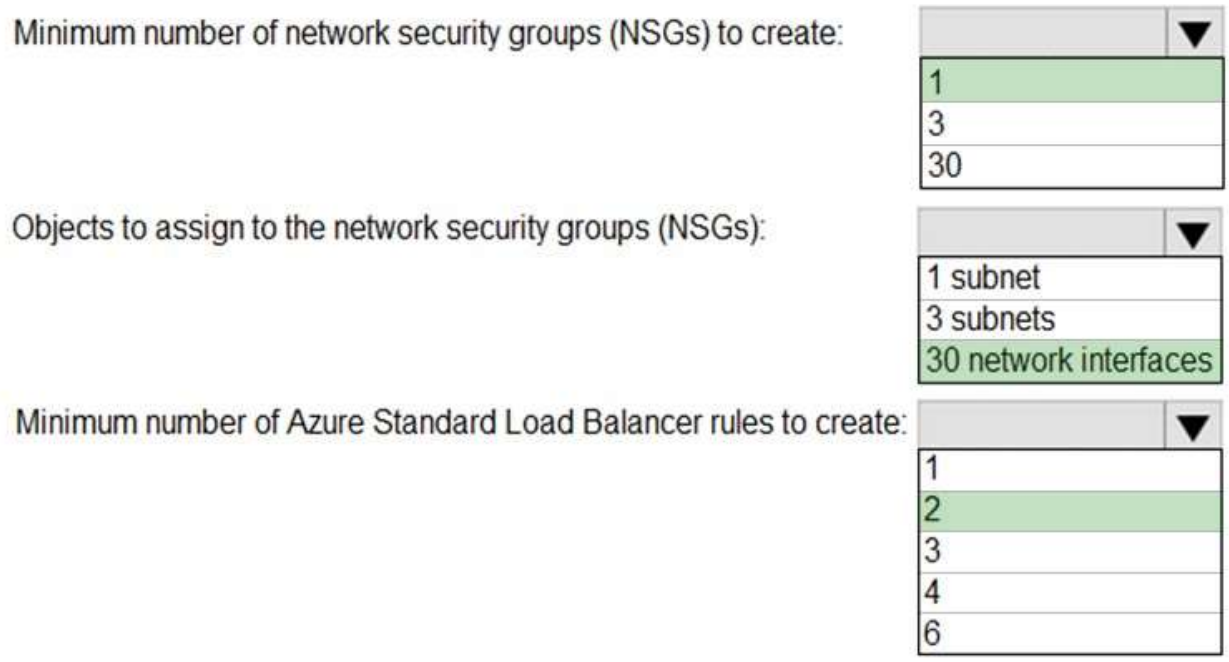
Minimum number of Azure Standard Load Balancer rules to create:

- 1
- 2
- 3
- 4
- 6

Hide Solution Discussion 20

Correct Answer:

Answer Area



Box 1: 1 -

Box 2: 30 network interfaces -
For a standard load balancer, the VMs in the backend address for are required to have network interfaces that belong to a network security group.

Box 3: 2 -
On for the HTTP traffic, and one for the HTTPs traffic.
Reference:
https://docs.microsoft.com/en-us/azure/load-balancer/quickstart-load-balancer-standard-public-cli

Question #66*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an app named App1 that uses data from two on-premises Microsoft SQL Server databases named DB1 and DB2.
You plan to move DB1 and DB2 to Azure.
You need to implement Azure services to host DB1 and DB2. The solution must support server-side transactions across DB1 and DB2.
Solution: You deploy DB1 and DB2 as Azure SQL databases each on a different Azure SQL

Database server.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 16

Correct Answer: *B*
Instead deploy DB1 and DB2 to SQL Server on an Azure virtual machine.
Note: Understanding distributed transactions.
When both the database management system and client are under the same ownership (e.g. when SQL Server is deployed to a virtual machine), transactions are available and the lock duration can be controlled.
Reference:
https://docs.particular.net/nservicebus/azure/understanding-transactionality-in-azure

Question #67*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an app named App1 that uses data from two on-premises Microsoft SQL Server databases named DB1 and DB2.
You plan to move DB1 and DB2 to Azure.
You need to implement Azure services to host DB1 and DB2. The solution must support server-side transactions across DB1 and DB2.
Solution: You deploy DB1 and DB2 as Azure SQL databases on the same Azure SQL Database server.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 17

Correct Answer: *B*
Instead deploy DB1 and DB2 to SQL Server on an Azure virtual machine.
Note: Understanding distributed transactions.
When both the database management system and client are under the same ownership (e.g. when SQL Server is deployed to a virtual machine), transactions are available and the lock duration can be controlled.
Reference:
https://docs.particular.net/nservicebus/azure/understanding-transactionality-in-azure

Question #68*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Cosmos DB database that contains a container named Container1. The partition key for Container1 is set to /day. Container1 contains the items shown in the following table.

Name	Content
Item1	{ "id": "1", "day": "Mon", "value": "10" }
Item2	{ "id": "2", "day": "Mon", "value": "15" }
Item3	{ "id": "3", "day": "Tue", "value": "10" }
Item4	{ "id": "4", "day": "Wed", "value": "15" }

You need to programmatically query Azure Cosmos DB and retrieve Item1 and Item2 only.
Solution: You run the following query.

SELECT day -
WHERE value = "10"
You set the EnableCrossPartitionQuery property to False.
Does this meet the goal?

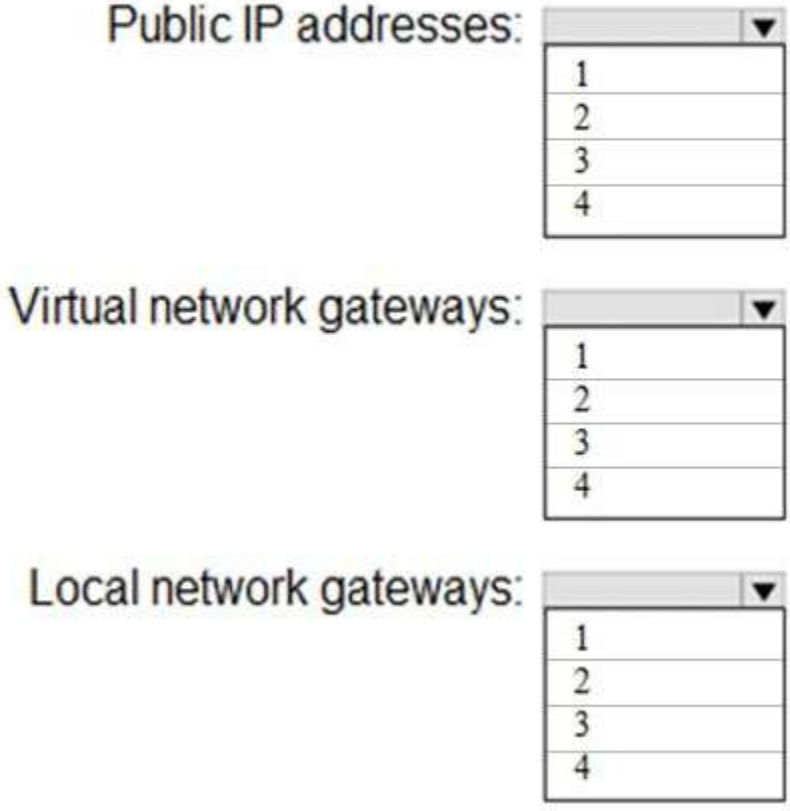
- A. Yes
- B. No

Hide Solution Discussion 10

Correct Answer: *B*
Returns Item1 only as EnableCrossPartitionQuery property to False. If EnableCrossPartitionQuery property is set to true, it will return Item1 and Item3.
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/sql-query-where

Question #69*Topic 1*
HOTSPOT -
You have an on-premises data center and an Azure subscription. The data center contains two VPN devices. The subscription contains an Azure virtual network named VNet1. VNet1 contains a gateway subnet.
You need to create a site-to-site VPN. The solution must ensure that if a single instance of an Azure VPN gateway fails, or a single on-premises VPN device fails, the failure will not cause an interruption that is longer than two minutes.
What is the minimum number of public IP addresses, virtual network gateways, and local network gateways required in Azure? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area:



Hide Solution | Discussion 58

Answer Area:

Public IP addresses: 1 2 3 4

Virtual network gateways: 1 2 3 4

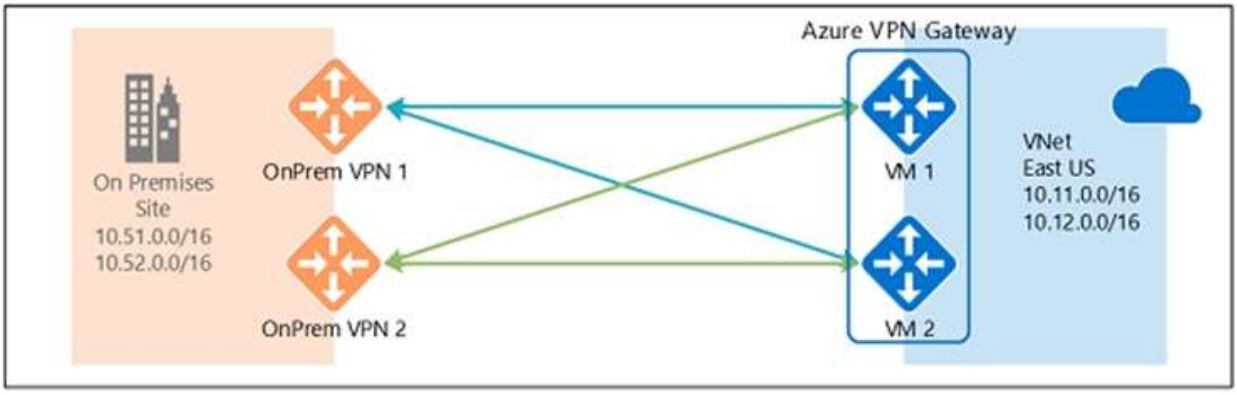
Local network gateways: 1 2 3 4

Correct Answer:

Box 1: 4 -

Two public IP addresses in the on-premises data center, and two public IP addresses in the VNET.

The most reliable option is to combine the active-active gateways on both your network and Azure, as shown in the diagram below.



Box 2: 2 -

Every Azure VPN gateway consists of two instances in an active-standby configuration. For any

planned maintenance or unplanned disruption that happens to the active instance, the standby instance would take over (failover) automatically, and resume the S2S VPN or VNet-to-VNet connections.

Box 3: 2 -
Dual-redundancy: active-active VPN gateways for both Azure and on-premises networks
Reference:
https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-highlyavailable

Question #70*Topic 1*
You have an Azure subscription that contains an Azure Sentinel workspace. Sentinel is configured to monitor several Azure resources.
You need to send notification emails to resource owners when alerts or recommendations are generated for a resource.
What should you use?

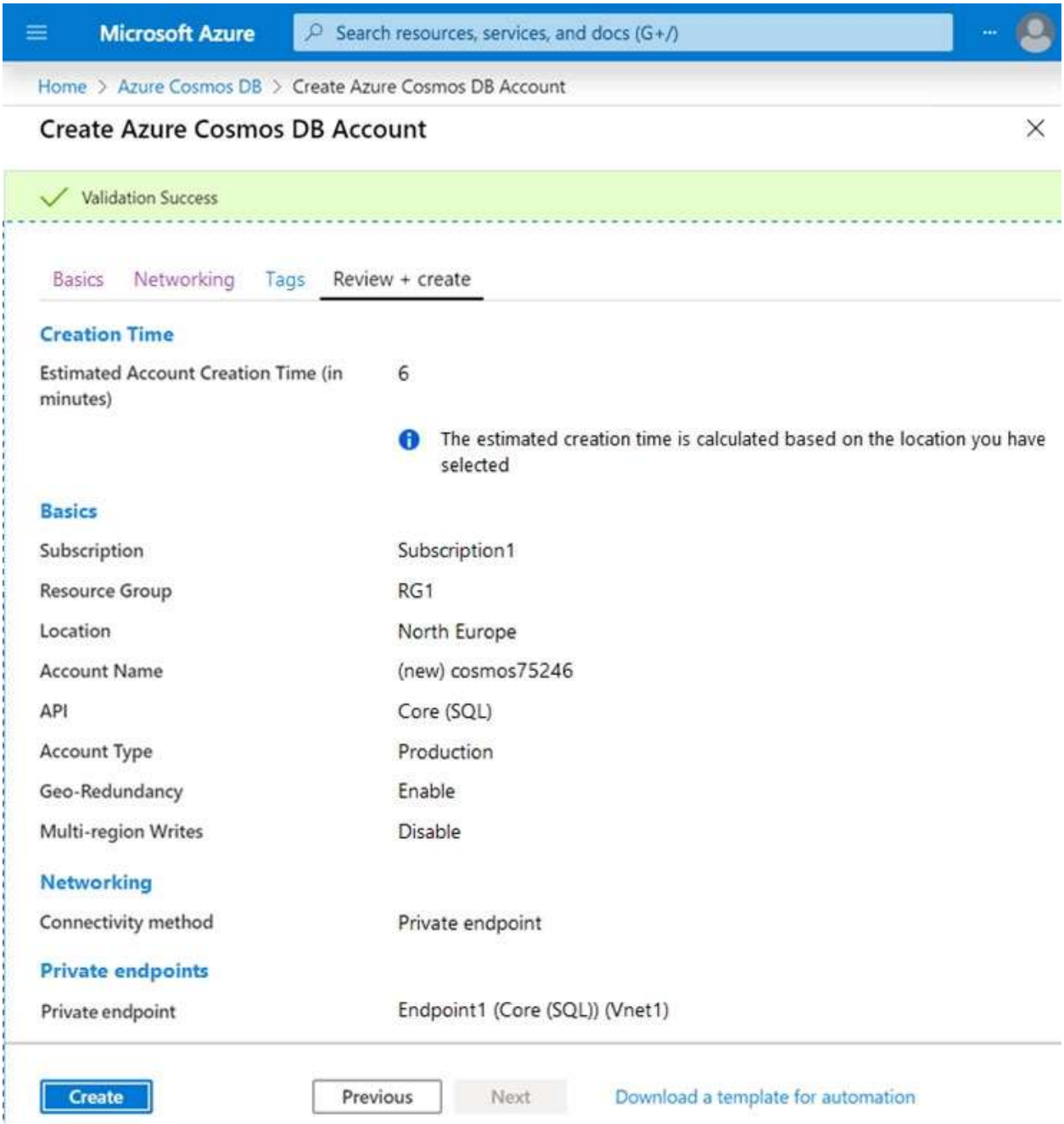
- A. Logic Apps Designer
- B. Azure Security Center
- C. Azure Pipelines
- D. Azure Machine Learning Studio

Hide Solution Discussion 6
Correct Answer: *A*
Currently there is no built-in functionality that notifies you via email if there is an incident that is generated in Azure Sentinel. However, you can set up an Azure
Logic App playbook to send incident information to your email.
Reference:
https://azsec.azurewebsites.net/2020/01/19/notify-azure-sentinel-alert-to-your-email-automatically/

Question #71*Topic 1*
HOTSPOT -
You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Location	Virtual machine
Vnet1	North Europe	VM1
Vnet2	West Europe	VM2

You create an Azure Cosmos DB account as shown in the exhibit. (Click the Exhibit tab.)



For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Cosmos75246 is accessible by using a public IP address.	○	○
VM1 can read from cosmos75246.	○	○
VM2 can read from cosmos75246.	○	○

Hide Solution | Discussion 4

Correct Answer:

Answer Area

Statements	Yes	No
Cosmos75246 is accessible by using a public IP address.	○	●
VM1 can read from cosmos75246.	●	○
VM2 can read from cosmos75246.	○	●

Box 1: No -
Connectivity Method: Private Network

Box 2: Yes -
Private endpoint: Endpoint1 (Core (SQL)) (Vnet1)
VM1 is in Vnet1.

Box 3: No -
VM2 is not in Vnet1.
Reference:
https://docs.microsoft.com/en-us/azure/private-link/tutorial-private-endpoint-cosmosdb-portal

Question #72*Topic 1*
HOTSPOT -
You have an Azure subscription named Subscription1.
Subscription1 contains the virtual machines in the following table.

Name	IP address
VM1	10.0.1.4
VM2	10.0.2.4
VM3	10.0.3.4

Subscription1 contains a virtual network named VNet1 that has the subnets in the following table.

Name	Address space	Connected virtual machine
Subnet1	10.0.1.0/24	VM1
Subnet2	10.0.2.0/24	VM2
Subnet3	10.0.3.0/24	VM3

VM3 has a network adapter named NIC3. IP forwarding is enabled on NIC3. Routing is enabled on VM3.

You create a route table named RT1 that contains the routes in the following table.

Address prefix	Next hop type	Next hop address
10.0.1.0/24	Virtual appliance	10.0.3.4
10.0.2.0/24	Virtual appliance	10.0.3.4

You apply RT1 to Subnet1 and Subnet2.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
VM3 can establish a network connection to VM1.	○	○
If VM3 is turned off, VM2 can establish a network connection to VM1.	○	○
VM1 can establish a network connection to VM2.	○	○

Hide Solution | Discussion 3

Correct Answer:

Answer Area

Statements	Yes	No
VM3 can establish a network connection to VM1.	○	○
If VM3 is turned off, VM2 can establish a network connection to VM1.	○	○
VM1 can establish a network connection to VM2.	○	○

IP forwarding enables the virtual machine a network interface is attached to:

☞ Receive network traffic not destined for one of the IP addresses assigned to any of the IP configurations assigned to the network interface.

☞ Send network traffic with a different source IP address than the one assigned to one of a network interface's IP configurations.

The setting must be enabled for every network interface that is attached to the virtual machine that

receives traffic that the virtual machine needs to forward. A virtual machine can forward traffic whether it has multiple network interfaces or a single network interface attached to it.

Box 1: Yes -
The routing table allows connections from VM3 to VM1 and VM2. And as IP forwarding is enabled on VM3, VM3 can connect to VM1.

Box 2: No -
VM3, which has IP forwarding, must be turned on, in order for VM2 to connect to VM1.

Box 3: Yes -
The routing table allows connections from VM1 and VM2 to VM3. IP forwarding on VM3 allows VM1 to connect to VM2 via VM3.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview
https://www.quora.com/What-is-IP-forwarding

Question #73*Topic 1*
DRAG DROP -
You have an Azure virtual machine named VM1 that runs Windows Server 2016.
You install a line-of-business application on VM1.
You need to create a scale set by using VM1 as a custom image.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.
Select and Place:

Actions	Answer Area
Run `sysprep.exe` on VM1.	
Install Network Load Balancing (NLB) on VM1.	
From Azure CLI, deallocate VM1 and mark VM1 as generalized.	
From Azure CLI, apply a custom script extension.	
Create a virtual machine scale set.	

Hide Solution Discussion 7

Correct Answer:

Actions	Answer Area
Run `sysprep.exe` on VM1.	Run `sysprep.exe` on VM1.
Install Network Load Balancing (NLB) on VM1.	From Azure CLI, deallocate VM1 and mark VM1 as generalized.
From Azure CLI, deallocate VM1 and mark VM1 as generalized.	Create a virtual machine scale set.
From Azure CLI, apply a custom script extension.	
Create a virtual machine scale set.	

Step 1: Run sysprep.exe on VM1.
The final step to prepare your VM for use as a custom image is to generalize the VM. Sysprep removes all your personal account information and configurations, and resets the VM to a clean

state for future deployments.
Step 2: From Azure CLI, deallocate VM1 and mark VM1 as generalized,
To create an image, the VM needs to be deallocated. Deallocate the VM with Stop-AzVm. Then, set the state of the VM as generalized with Set-AzVm so that the
Azure platform knows the VM is ready for use a custom image. You can only create an image from a generalized VM.
It may take a few minutes to deallocate and generalize the VM.
Then create an image of the VM with New-AzImageConfig and New-AzImage.
Step 3: Create a virtual machine scale set.
Create a scale set with New-AzVmss that uses the -ImageName parameter to define the custom VM image created in the previous step.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/tutorial-use-custom-image-powershell

Question #74*Topic 1*
You have an Azure virtual network that contains a subnet named Subnet1. Subnet1 contains 50 virtual machines. Twenty-five of the virtual machines are web servers and the other 25 are application servers.
You need to filter traffic between the web servers and the application servers by using application security groups.
Which additional resource should you provision?

- A. Azure Firewall
- B. a user-defined route
- C. Azure Private Link
- D. a network security group (NSG)

Hide Solution | Discussion 11

Correct Answer: *D*
Application security groups enable you to configure network security as a natural extension of an application's structure, allowing you to group virtual machines and define network security policies based on those groups.
You can filter network traffic inbound to and outbound from a virtual network subnet with a network security group.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/tutorial-filter-network-traffic

Question #75*Topic 1*
Your on-premises network contains several Hyper-V hosts.
You have a hybrid deployment of Azure Active Directory (Azure AD).
You create an Azure Migrate project.
You need to ensure that you can evaluate virtual machines by using Azure Migrate.
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Deploy the Azure Migrate appliance to an on-premises Hyper-V host.
- B. Assign the migration account to the Administrators group on each Hyper-V virtual machine.
- C. Deploy the Microsoft Monitoring Agent to each Hyper-V host.
- D. Assign the migration account to the Administrators group on each Hyper-V host.
- E. Deploy the Microsoft Monitoring Agent to each Hyper-V virtual machine.
- F. Deploy the Azure Migrate appliance as an Azure virtual machine.

Hide Solution | Discussion 15

Correct Answer: *AE*

E: On each machine you want to analyze, install the following agents:

☞ The Microsoft Monitoring agent (MMA).

☞ The Dependency agent.

A: You create the appliance VM.

Azure Migrate: Server Assessment uses a lightweight Azure Migrate appliance. The appliance performs VM discovery and sends VM configuration and performance metadata to Azure Migrate. The appliance can be set up by deploying a VHD file that can be downloaded from the Azure Migrate project.

You set up the appliance on a Hyper-V VM, as follows:

1. Provide an appliance name and generate an Azure Migrate project key in the portal.
2. Download a compressed Hyper-V VHD from the Azure portal.
3. Create the appliance, and check that it can connect to Azure Migrate Server Assessment.
4. Configure the appliance for the first time, and register it with the Azure Migrate project using the Azure Migrate project key.

Note: Details -

1. Extract the zipped VHD file to a folder on the Hyper-V host that will host the appliance VM. Three folders are extracted.
2. Open Hyper-V Manager. In Actions, click Import Virtual Machine.
3. In the Import Virtual Machine Wizard > Before you begin, click Next.
4. In Locate Folder, specify the folder containing the extracted VHD. Then click Next.
5. In Select Virtual Machine, click Next.
6. In Choose Import Type, click Copy the virtual machine (create a new unique ID). Then click Next.
7. In Choose Destination, leave the default setting. Click Next.
8. In Storage Folders, leave the default setting. Click Next.
9. In Choose Network, specify the virtual switch that the VM will use. The switch needs internet connectivity to send data to Azure.
10. In Summary, review the settings. Then click Finish.
11. In Hyper-V Manager > Virtual Machines, start the VM.

Reference:

https://docs.microsoft.com/en-us/azure/migrate/tutorial-discover-hyper-v#set-up-the-appliance
https://docs.microsoft.com/en-us/azure/migrate/migrate-support-matrix-hyper-v#agent-based-dependency-analysis-requirements

Question #76*Topic 1*
HOTSPOT -
Your network contains an on-premises Active Directory domain. The domain contains the Hyper-V failover clusters shown in the following table.

Name	Number of nodes	Number of virtual machines
Cluster1	2	12
Cluster2	4	10
Cluster3	6	40

You plan to assess and migrate the virtual machines by using Azure Migrate.
What is the minimum number of Azure Migrate appliances and Microsoft Azure Recovery Services (MARS) agents required?
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

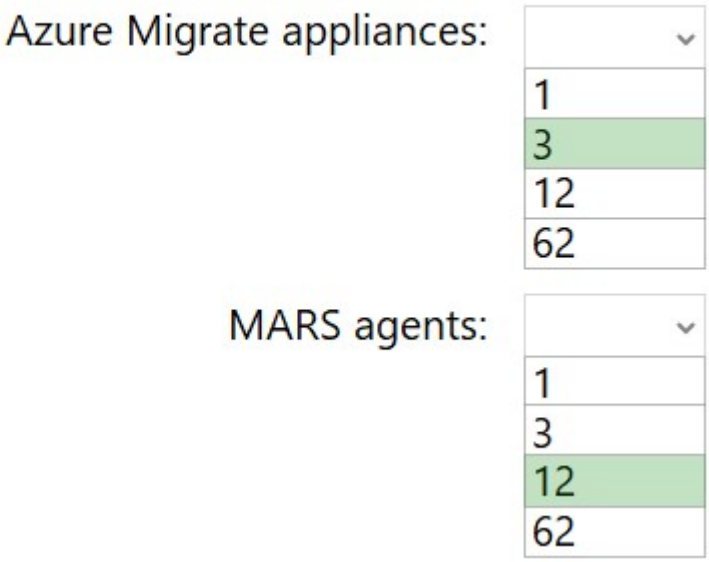
Azure Migrate appliances: [ ]
- 1
- 3
- 12
- 62

MARS agents: [ ]
- 1
- 3
- 12
- 62

Hide Solution | Discussion 11

Correct

Answer Area



Answer:
Box 1: 3 -
One appliance for each cluster.

Box 2: 12 -
One MARS agent for each node.
Reference:
https://docs.microsoft.com/en-us/azure/migrate/tutorial-migrate-hyper-v

Question #77*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Active Directory (Azure AD) tenant named contoso.com.
A user named Admin1 attempts to create an access review from the Azure Active Directory admin center and discovers that the Access reviews settings are unavailable. Admin1 discovers that all the other Identity Governance settings are available.
Admin1 is assigned the User administrator, Compliance administrator, and Security administrator roles.
You need to ensure that Admin1 can create access reviews in contoso.com.
Solution: You assign the Service administrator role to Admin1.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 20

Correct Answer: *B*

Instead use Azure AD Privileged Identity Management.

Note: PIM essentially helps you manage the who, what, when, where, and why for resources that you care about. Key features of PIM include:

☞ Conduct access reviews to ensure users still need roles

Reference:

https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure

Question #78*Topic 1*

You have an Azure subscription that contains a policy-based virtual network gateway named GW1 and a virtual network named VNet1.

You need to ensure that you can configure a point-to-site connection from an on-premises computer to VNet1.

Which two actions should you perform? Each correct answer presents part of the solution.

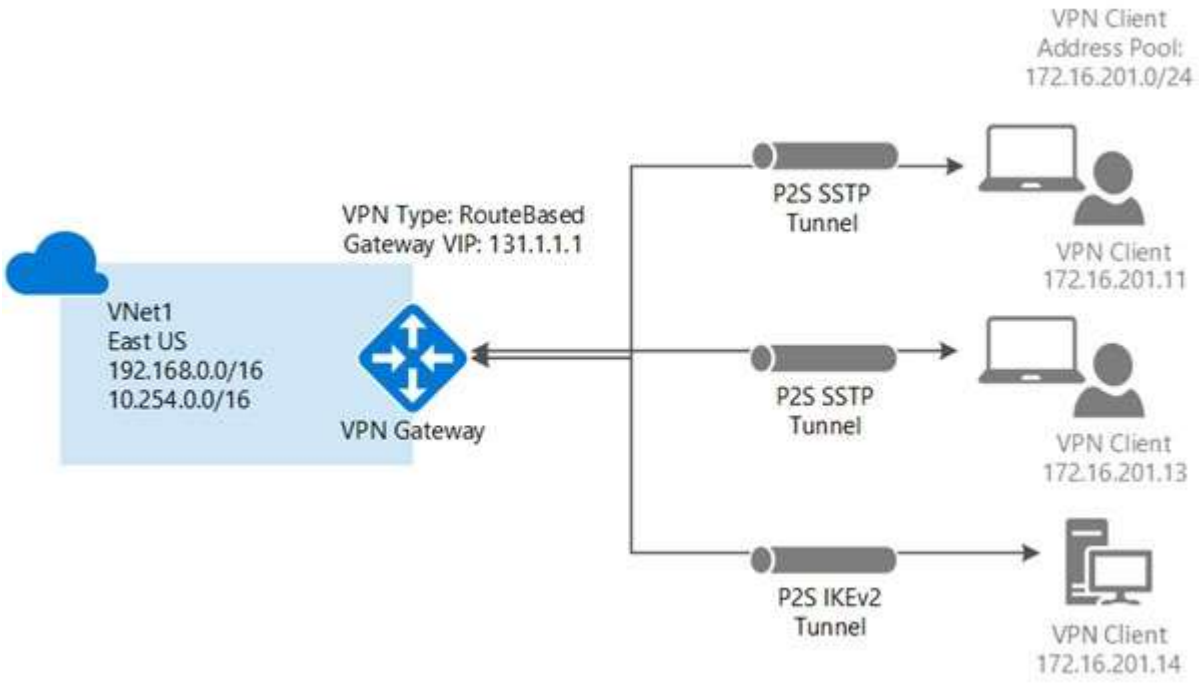
NOTE: Each correct selection is worth one point.

- A. Reset GW1.
- B. Delete GW1.
- C. Create a route-based virtual network gateway.
- D. Add a public IP address space to VNet1.
- E. Add a connection to GW1.
- F. Add a service endpoint to VNet1.

Hide Solution Discussion 5

Correct Answer: *BC*

Need a RouteBased VPN gateway.



Reference:
https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/vpn-gateway/vpn-gateway-howto-point-to-site-resource-manager-portal.md

Question #79*Topic 1*
You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Address space	Location	Number of Azure virtual machines
VNET1	10.1.0.0/16	West US	100
VNET2	172.16.0.0/16	East US	400

You need to recommend a connectivity solution that will enable the virtual machines on VNET1 and VNET2 to communicate through the Microsoft backbone infrastructure.
What should you include in the recommendation?

- A. Azure ExpressRoute
- B. peering
- C. a point-to-site VPN
- D. a site-to-site VPN

Hide Solution Discussion 5
Correct Answer: *B*
Virtual network peering enables you to seamlessly connect Azure virtual networks. Once peered, the virtual networks appear as one, for connectivity purposes.
The traffic between virtual machines in the peered virtual networks is routed through the Microsoft backbone infrastructure, much like traffic is routed between virtual machines in the same virtual

network, through private IP addresses only. Azure supports:
☞ VNet peering - connecting VNets within the same Azure region
☞ Global VNet peering - connecting VNets across Azure regions
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview

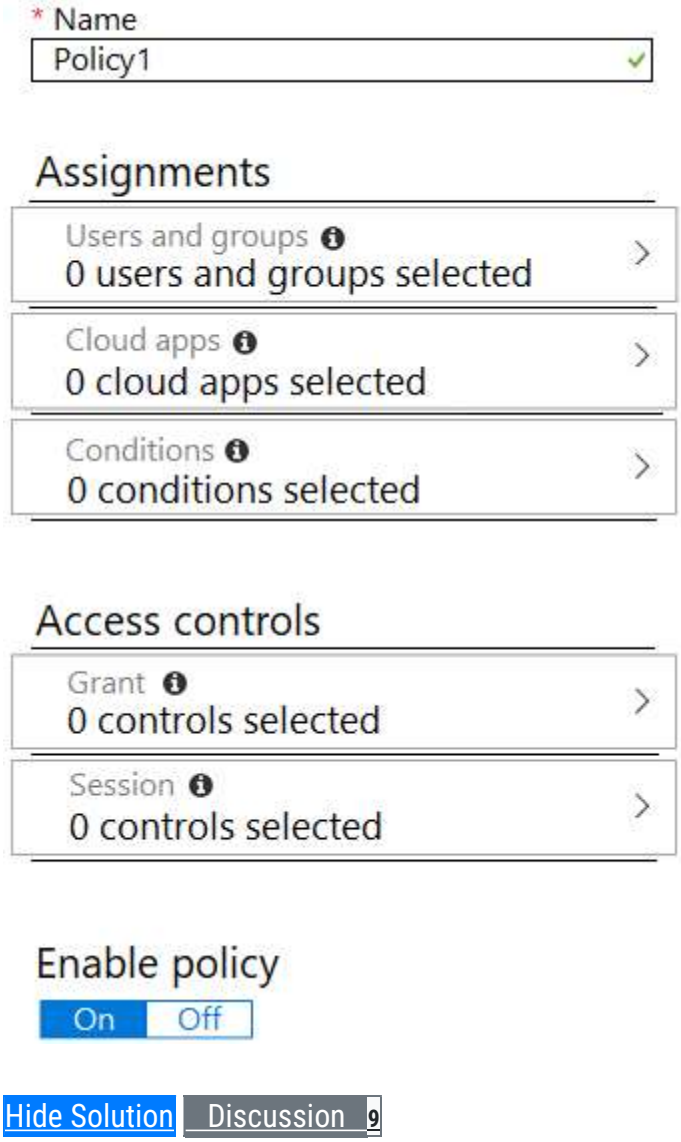
Question #80*Topic 1*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an app named App1 that uses data from two on-premises Microsoft SQL Server databases named DB1 and DB2.
You plan to move DB1 and DB2 to Azure.
You need to implement Azure services to host DB1 and DB2. The solution must support server-side transactions across DB1 and DB2.
Solution: You deploy DB1 and DB2 to an Azure SQL Database managed instance.
Does this meet the goal?

- A. Yes
- B. No

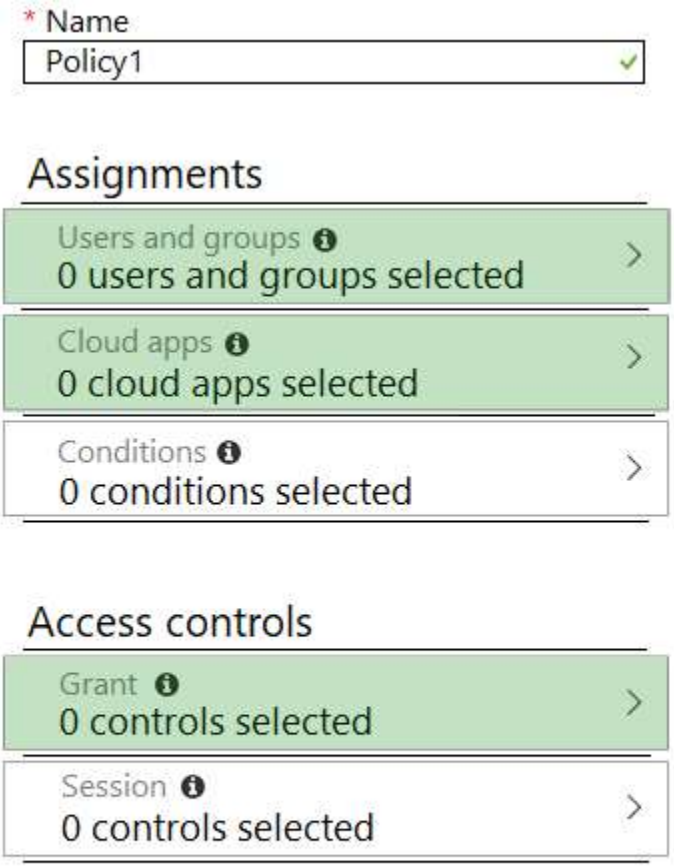
Hide Solution Discussion 15
Correct Answer: *B*
Instead deploy DB1 and DB2 to SQL Server on an Azure virtual machine.
Note: Understanding distributed transactions.
When both the database management system and client are under the same ownership (e.g. when SQL Server is deployed to a virtual machine), transactions are available and the lock duration can be controlled.
Reference:
https://docs.particular.net/nservicebus/azure/understanding-transactionality-in-azure

Question #1*Topic 2*
HOTSPOT -
You have an Azure Active Directory (Azure AD) tenant.
You need to create a conditional access policy that requires all users to use multi-factor authentication when they access the Azure portal.
Which three settings should you configure? To answer, select the appropriate settings in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:



Hide Solution | Discussion 9



Correct Answer:
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/app-based-mfa

Question #2*Topic 2*
You are implementing authentication for applications in your company. You plan to implement self-service password reset (SSPR) and multifactor authentication
(MFA) in Azure Active Directory (Azure AD).
You need to select authentication mechanisms that can be used for both MFA and SSPR.
Which two authentication methods should you use? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. Authenticator app
- B. Email addresses
- C. App passwords
- D. Short Message Service (SMS) messages

- E. Security questions

Hide Solution Discussion 14

Correct Answer: *AD*

The following authentication mechanisms can be used for both MFA and SSPR:

☞ Short Message Service (SMS) messages

☞ Azure AD passwords

☞ Microsoft Authenticator app

☞ Voice call

Incorrect Answers:

B, E: The following authentication mechanisms are used for SSPR only:

☞ Email addresses

☞ Security questions

E: App passwords authentication mechanisms can be used for MFA only, but only in certain cases.

Reference:

https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-authentication-methods

Question #3*Topic 2*

Your company has the groups shown in the following table.

Group	Number of members
Managers	10
Sales	100
Development	15

The company has an Azure subscription that is associated with an Azure Active Directory (Azure AD) tenant named contoso.com.

An administrator named Admin1 attempts to enable Enterprise State Roaming for all the users in the Managers group.

Admin1 reports that the options for Enterprise State Roaming are unavailable from Azure AD.

You verify that Admin1 is assigned the Global administrator role.

You need to ensure that Admin1 can enable Enterprise State Roaming.

What should you do?

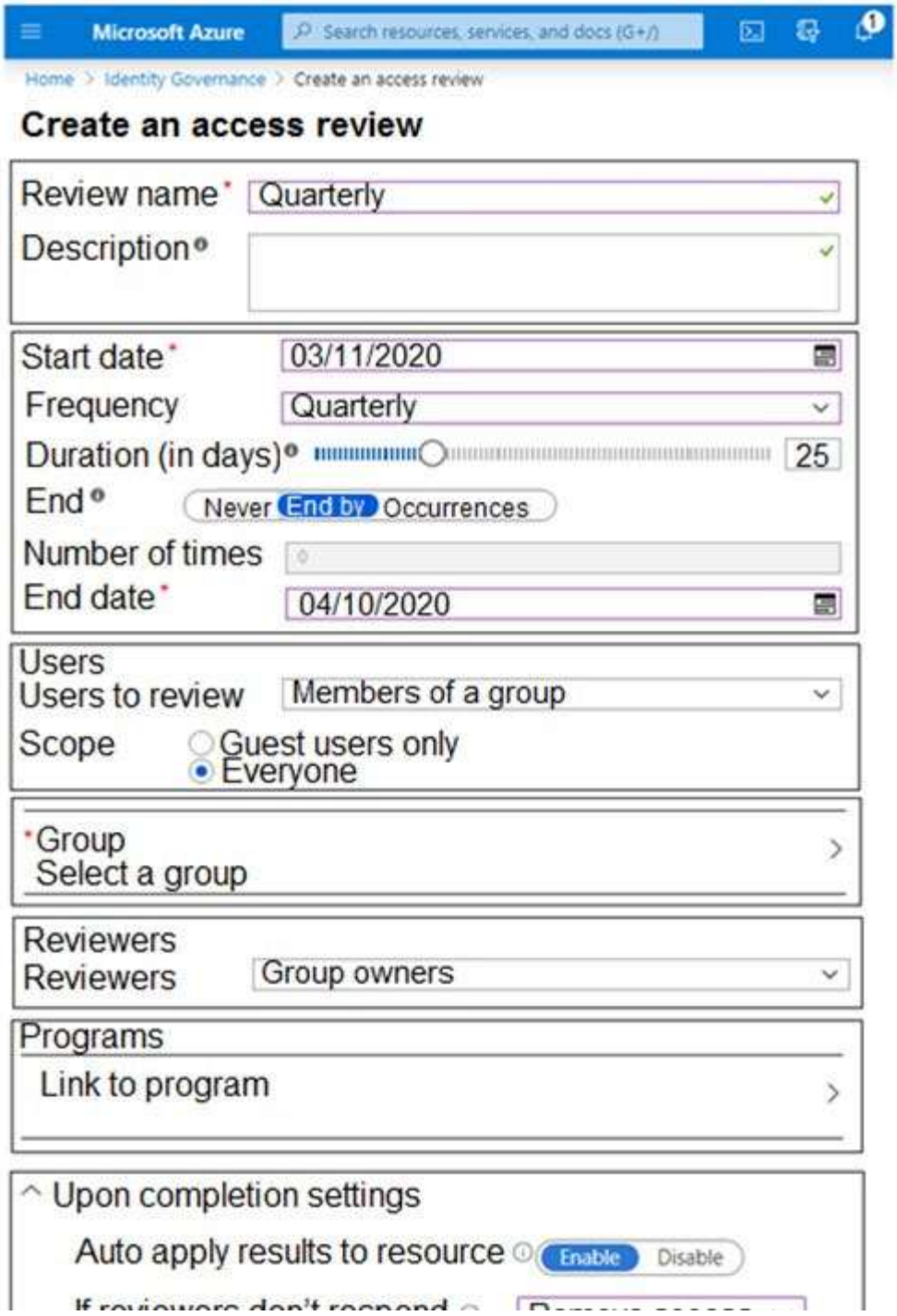
- A. Assign an Azure AD Privileged Identity Management (PIM) role to Admin1.
- B. Purchase an Azure Rights Management (Azure RMS) license for each user in the Managers group.
- C. Enforce Azure Multi-Factor Authentication (MFA) for Admin1.
- D. Purchase an Azure AD Premium P1 license for each user in the Managers group.

Hide Solution Discussion 5

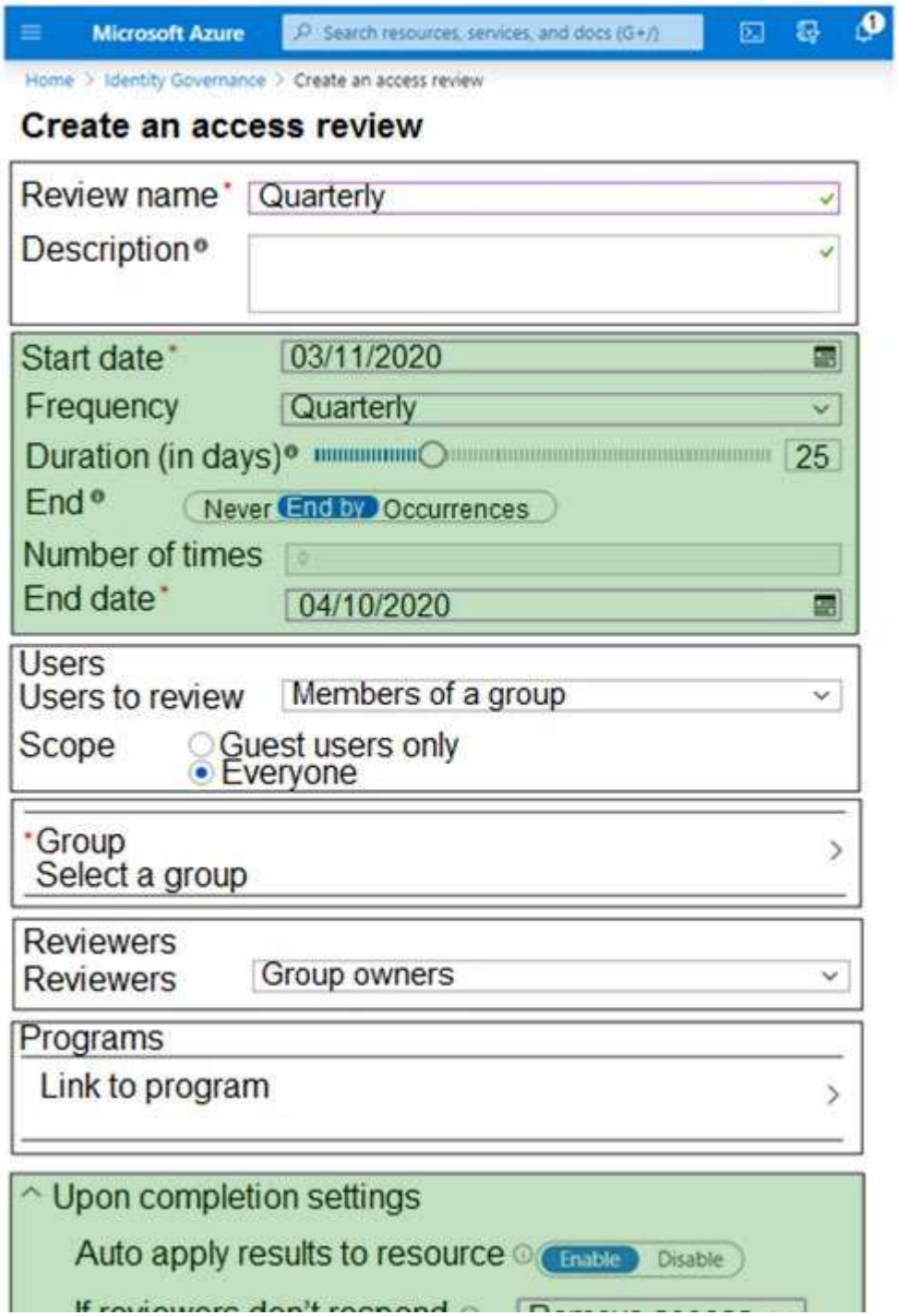
Correct Answer: *D*
Enterprise State Roaming is available to any organization with an Azure AD Premium or Enterprise Mobility + Security (EMS) license.
Reference:
https://docs.microsoft.com/bs-latn-ba/azure/active-directory/devices/enterprise-state-roaming-enable

Question #4*Topic 2*
HOTSPOT -
You plan to implement an access review to meet the following requirements:
☞ The access review must be enforced until otherwise configured.
☞ Each user or group that has access to the Azure environment must be in the scope of the access review.
☞ The access review must be completed within two weeks.
☞ A lack of response must not cause changes in the operational environment.
An administrator creates the access review shown in the answer area.
Which two sections of the access review should you modify to meet the requirements? To answer, select the appropriate sections in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:



Hide Solution Discussion 10



Correct Answer:

Area 1: Start date..End Date -

The access review must be enforced until otherwise configured. We set End: Never

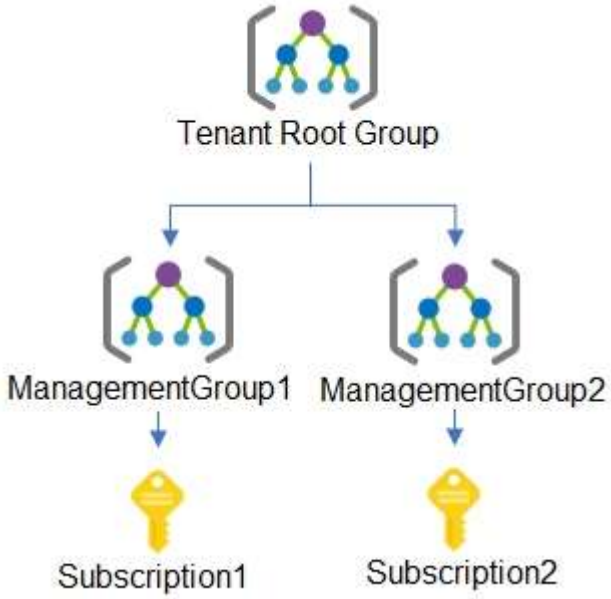
The access review must be completed within two weeks. We set Duration (in days) to 14

Area 2: Upon completion settings

A lack of response must not cause changes in the operational environment. We set 'If reviewers don't respond: No change (which leave user's access unchanged)

Reference:
https://docs.microsoft.com/en-us/azure/active-directory/governance/create-access-review

Question #5*Topic 2*
HOTSPOT -
You have a hierarchy of management groups and Azure subscriptions as shown in the following table.



You create the Azure resources shown in the following table.

Name	Type	Created in
RG1	Resource group	Subscription1
RG2	Resource group	Subscription2
VM2	Virtual machine	RG2

You have the Owner role. You assign roles to users as shown in the following table.

User name	Role	On resource
User1	Contributor	ManagementGroup1
User2	Contributor	ManagementGroup2
User3	Reader	Tenant Root Group

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
You can remove User1 from the Contributor role for RG1.	○	○
User2 can delete VM2.	○	○
You can add User3 as a Contributor for RG1.	○	○

Hide Solution | Discussion 18

Correct Answer:

Answer Area

Statements	Yes	No
You can remove User1 from the Contributor role for RG1.	○	○
User2 can delete VM2.	○	○
You can add User3 as a Contributor for RG1.	○	○

Box 1: Yes -
You have assigned the role, so you can remove it.

Box 2: Yes -
Contributor role: Grants full access to manage all resources, but does not allow you to assign roles in Azure RBAC.

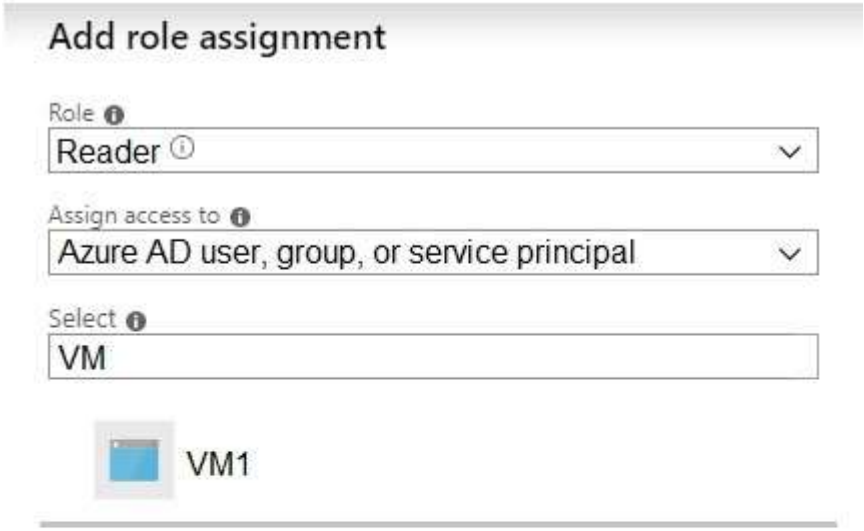
Box 3: No -
Reference:
https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles#contributor

Question #6*Topic 2*

You have an Azure subscription that includes the resources shown in the following table.

Name	Resource type
VM1	Virtual machine
VM2	Virtual machine
RG1	Resource group

You attempt to add a role assignment to RG1 as shown in the following exhibit.



What should you do to ensure that you can assign VM2 the Reader role for the resource group?

- A. Configure just in time (JIT) VM access on VM2.
- B. Configure Access control (IAM) on VM2.
- C. Assign a managed identity to VM2.
- D. Modify the Reader role at the subscription level.

Hide Solution | Discussion 15

Correct Answer: *B*

After youâ€™ve configured an Azure resource with a managed identity, you can give the managed identity access to another resource, just like any security principal.

Use Azure RBAC to assign a managed identity access to another resource
After you…€™ve enabled managed identity on an Azure resource, such as an Azure VM or Azure virtual machine scale set:
1. Sign in to the Azure portal using an account associated with the Azure subscription under which you have configured the managed identity.
2. Navigate to the desired resource on which you want to modify access control. In this example, we are giving an Azure virtual machine access to a storage account, so we navigate to the storage account.
3. Select the Access control (IAM) page of the resource, and select + Add role assignment. Then specify the Role, Assign access to, and specify the corresponding Subscription. Under the search criteria area, you should see the resource. Select the resource, and select Save.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/howto-assign-access-portal

Question #7*Topic 2*
You have an Azure Active Directory (Azure AD) tenant linked to an Azure subscription. The tenant contains a group named Admins.
You need to prevent users, except for the members of Admins, from using the Azure portal and Azure PowerShell to access the subscription.
What should you do?

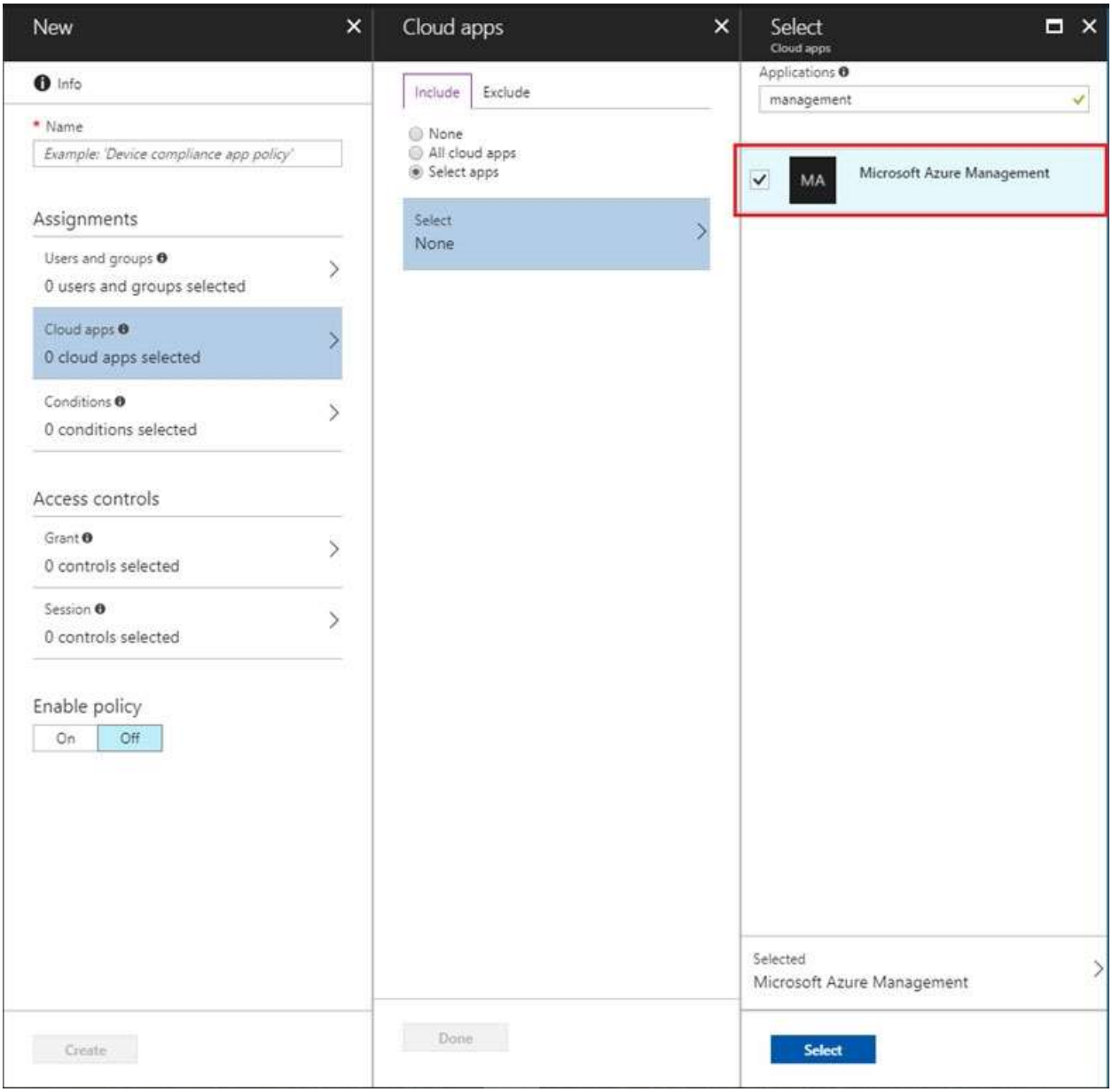
- A. From Azure AD, configure the User settings.
- B. From Azure AD, create a conditional access policy.
- C. From the Azure subscription, assign an Azure policy.
- D. From the Azure subscription, configure Access control (IAM).

Hide Solution | Discussion 18

Correct Answer: *B*
Typically, you use Conditional Access to control access to your cloud apps. You can also set up policies to control access to Azure management.
The policy you create applies to all Azure management endpoints, including the following:
☞ Azure portal
☞ Azure Resource Manager provider

Classic Service Management APIs -

▪
☞ Azure PowerShell
☞ Visual Studio subscriptions administrator portal
☞ Azure DevOps
☞ Azure Data Factory portal
To create a policy for Azure management, you select Microsoft Azure Management under Cloud apps when choosing the app to which to apply the policy.

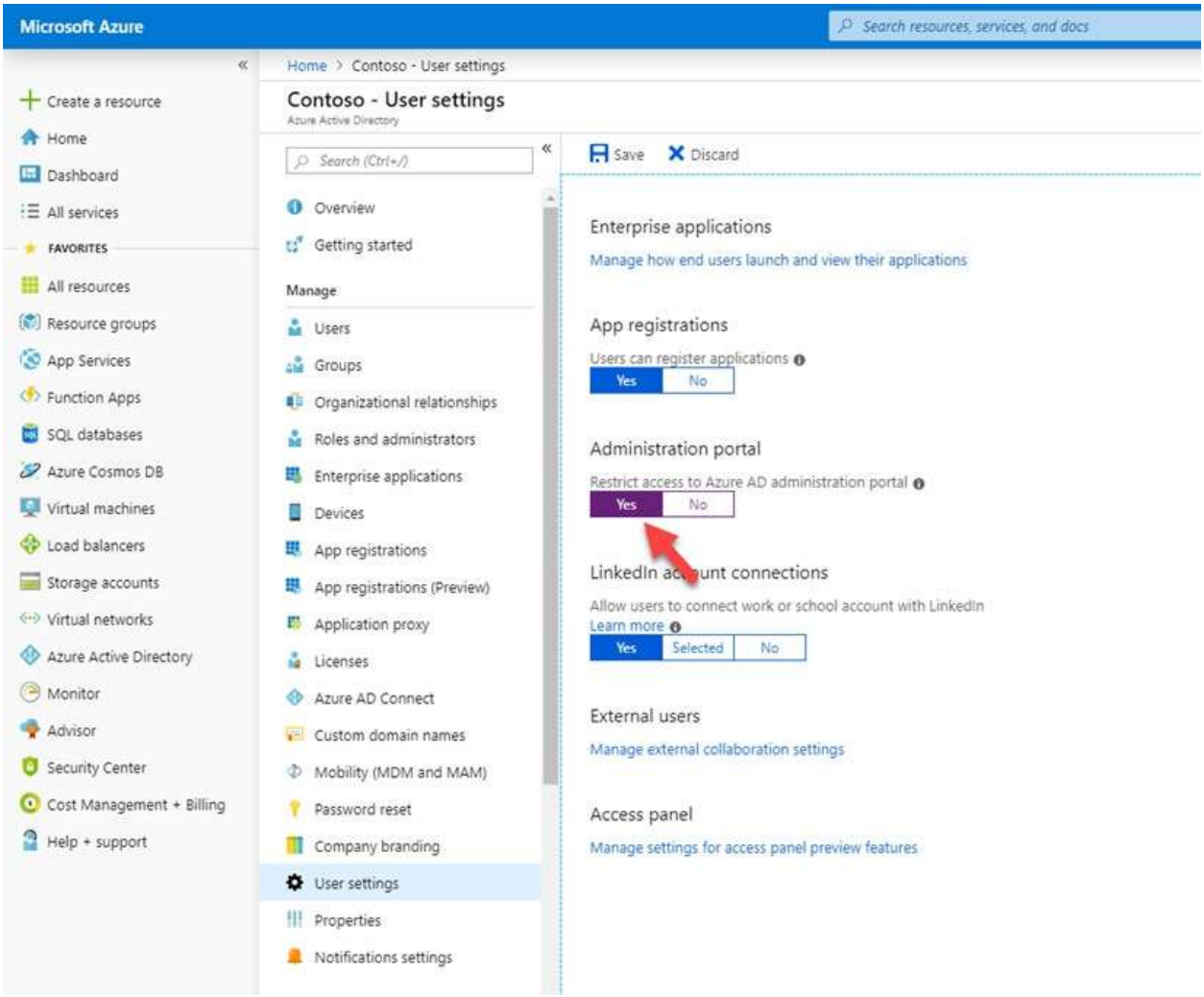


Incorrect Answers:

A: From User Settings you can only restrict access to Azure Portal, not access to Azure Powershell.

Note: Microsoft allows restricting standard user access to Azure Active Directory administration portal.

1. Log in to Azure portal as Global Administrator
2. Go to Azure Active Directory | User Settings
3. Then click on Yes under Restrict access to Azure AD administration portal



Reference:
https://docs.microsoft.com/en-us/azure/role-based-access-control/conditional-access-azure-management https://www.rebeladmin.com/2019/04/step-step-guide-restrict-azure-ad-administration-portal/

Question #8*Topic 2*
You have Azure virtual machines deployed to three Azure regions. Each region contains a single virtual network that has four virtual machines on the same subnet. Each virtual machine runs an application named App1. App1 is accessible by using HTTPS. Currently, the virtual machines are inaccessible from the internet.
You need to use Azure Front Door to load balance requests for App1 across all the virtual machines.
Which additional Azure service should you provision?

- A. Azure Traffic Manager
- B. an internal Azure Load Balancer
- C. a public Azure Load Balancer

- D. Azure Private Link

Hide Solution Discussion 77

Correct Answer: *B*

Can we deploy Azure Load Balancer behind Front Door?
Azure Front Door needs a public VIP or a publicly available DNS name to route the traffic to.
Deploying an Azure Load Balancer behind Front Door is a common use case.
Reference:
https://docs.microsoft.com/en-us/azure/frontdoor/front-door-faq

Question #9*Topic 2*

You have Azure virtual machines that have Update Management enabled. The virtual machines are configured as shown in the following table.

Name	Operating system	Resource group	Location
VM1	Windows Server 2012 R2	RG1	East US
VM2	Windows Server 2016	RG1	West US
VM3	Windows Server 2019	RG2	West US
VM4	Red Hat Enterprise Linux 7.7	RG2	West US
VM5	Ubuntu Server 18.04 LTS	RG1	East US
VM6	CentOS-based 7.7	RG1	East US

You need to ensure that all critical and security updates are applied to each virtual machine every month.
What is the minimum number of update deployments you should create?

- A. 4
- B. 6
- C. 2
- D. 1

Hide Solution Discussion 31

Correct Answer: *A*

One for the Windows VMs, and for each type of Linux VM.
Reference:
https://docs.microsoft.com/en-us/azure/automation/update-management/overview

Question #10*Topic 2*

You have an Azure subscription.
You create a custom role in Azure by using the following Azure Resource Manager template.

```
{
"Name": "Role1",
"Id": "88888888-8888-8888-8888-888888888888",
"IsCustom": true,
"Description": "Role1 Description",
"Actions": [
     "Microsoft.Storage/*/read",
     "Microsoft.Network/*/read",
     "Microsoft.Compute/*/read",
     "Microsoft.Compute/virtualMachines/start/action",
     "Microsoft.Compute/virtualMachines/restart/action",
     "Microsoft.Authorization/*/read",
     "Microsoft.ResourceHealth/availabilityStatuses/read",
     "Microsoft.Resources/subscriptions/resourceGroups/read",
     "Microsoft.Insights/alertRules/*",
     "Microsoft.Insights/diagnosticSettings/*",
     "Microsoft.Support/*"
 ],
 "NotActions": [],
 "DataActions": [],
 "NotDataActions": [],
 "AssignableScopes": [
   "/subscription s/981dd4bc-8cf4-46fc-9513-0c599648b44b
 ]
}
```

You assign the role to a user named User1.
Which action can User1 perform?

- A. Create virtual machines.
- B. Create resource groups.
- C. Delete virtual machines.
- D. Create support requests.

Hide Solution Discussion 5

Correct Answer: *D*
The "Microsoft.Support/*" operation will allow the user to create support tickets.
Reference:
https://docs.microsoft.com/en-us/azure/role-based-access-control/tutorial-custom-role-powershell

Question #11*Topic 2*

You have an Azure SQL database named Db1 that runs on an Azure SQL server named SQLserver1.
You need to ensure that you can use the query editor on the Azure portal to query Db1.
What should you do?

- A. Copy the ADO.NET connection string of Db1 and paste the string to the query editor.
- B. Approve private endpoint connections for SQLserver1.
- C. Modify the Advanced Data Security settings of Db1.
- D. Configure the Firewalls and virtual networks settings for SQLserver1.

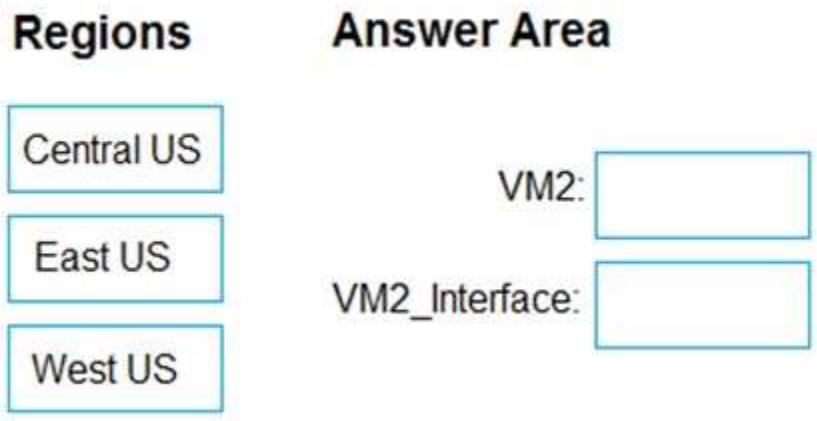
Hide Solution | Discussion 10

Correct Answer: *D*
Reference:
https://docs.microsoft.com/en-us/azure/sql-database/sql-database-connect-query-portal

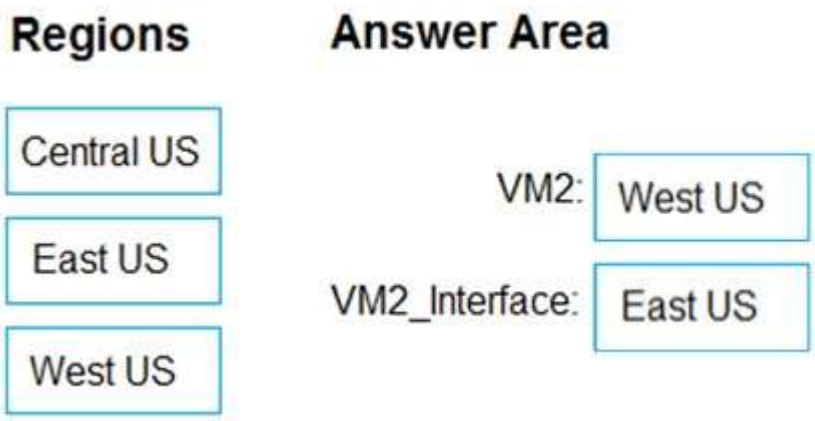
Question #12*Topic 2*
DRAG DROP -
You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Region	Resource group
RG1	Resource group	Central US	*Not applicable*
RG2	Resource group	West US	*Not applicable*
VM1	Virtual machine	East US	RG2
VNET1	Virtual network	East US	RG1

In RG2, you need to create a new virtual machine named VM2 that will connect to VNET1. VM2 will use a network interface named VM2_Interface.
In which region should you create VM2 and VM2_Interface? To answer, drag the appropriate regions to the correct targets. Each region may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.
Select and Place:



Hide Solution | Discussion 35



Correct Answer:
VM2: West US -
In RG2, which is in West US, you need to create a new virtual machine named VM2.

VM2_interface: East US -
VM2 will use a network interface named VM2_Interface to connect to VNET1, which is in East US.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/associate-public-ip-address-vm

Question #13*Topic 2*
A company hosts virtual machines (VMs) in an on-premises datacenter and in Azure. The on-premises and Azure-based VMs communicate using ExpressRoute.
The company wants to be able to continue regular operations if the ExpressRoute connection fails. Failover connections must use the Internet and must not require Multiprotocol Label Switching (MPLS) support.
You need to recommend a solution that provides continued operations.
What should you recommend?

- A. Increase the bandwidth of the existing ExpressRoute connection.
- B. Increase the bandwidth for the on-premises internet connection.
- C. Set up a VPN connection.
- D. Set up a second ExpressRoute connection.

Hide Solution Discussion 11
Correct Answer: *C*
Reference:
https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/expressroute-vpn-failover

Question #14*Topic 2*

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Address space
VNET1	Virtual network	10.1.1.0/24
Subnet1	Subnet	10.1.1.0/24
VM1	Virtual machine	*Not applicable*

Subnet1 is on VNET1. VM1 connects to Subnet1.
You plan to create a virtual network gateway on VNET1.
You need to prepare the environment for the planned virtual network gateway.
What should you do?

- A. Create a local network gateway.
- B. Modify the address space used by Subnet1.
- C. Create a subnet named GatewaySubnet on VNET1.
- D. Modify the address space used by VNET1.
- E. Delete Subnet1.

Hide Solution | Discussion 11

Correct Answer: *D*

Question #15*Topic 2*
Your network contains an on-premises Active Directory and an Azure Active Directory (Azure AD) tenant.
You deploy Azure AD Connect and configure pass-through authentication.
Your Azure subscription contains several web apps that are accessed from the Internet.
You plan to use Azure Multi-Factor Authentication (MFA) with the Azure Active Directory tenant.
You need to recommend a solution to prevent users from being prompted for Azure MFA when they access the web apps from the on-premises network.
What should you include in the recommendation?

- A. an Azure policy
- B. trusted IPs
- C. a site-to-site VPN between the on-premises network and Azure
- D. an Azure ExpressRoute circuit

Hide Solution | Discussion 5

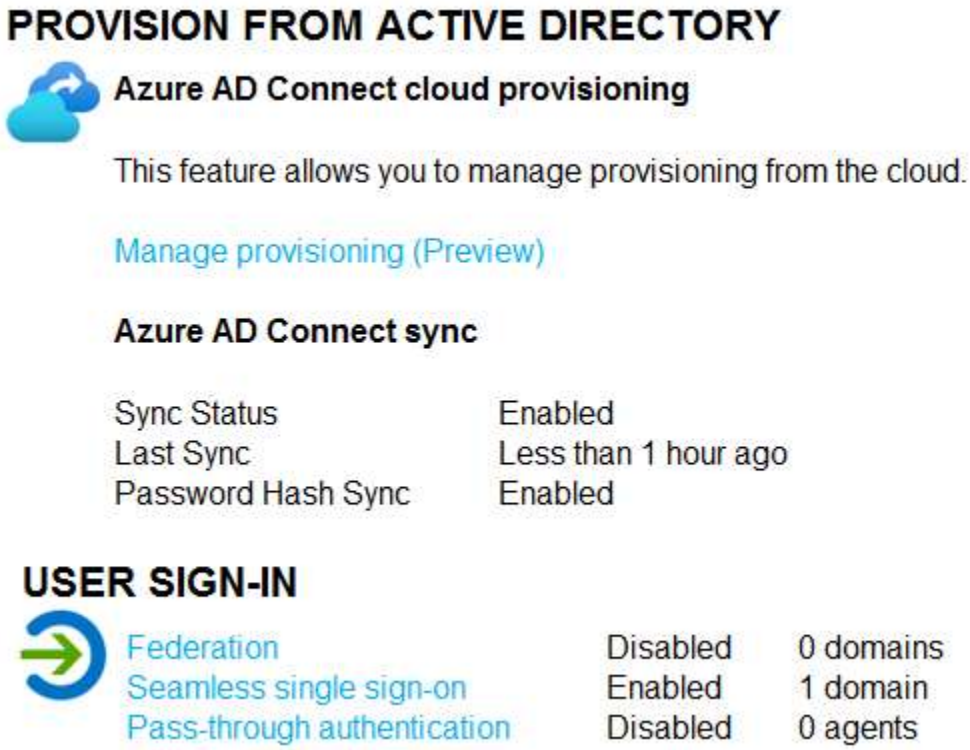
Correct Answer: *B*
The Trusted IPs feature of Azure Multi-Factor Authentication is used by administrators of a managed or federated tenant. The feature bypasses two-step verification for users who sign in from the company intranet. The feature is available with the full version of Azure Multi-Factor Authentication, and not the free version for administrators.
Reference:

https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-mfa-mfasettings#trusted-ips

Question #16*Topic 2*
HOTSPOT -
Your network contains an on-premises Active Directory domain named contoso.com that contains a user named User1. The domain syncs to Azure Active
Directory (Azure AD).
You have the Windows 10 devices shown in the following table.

Name	Joined to
Device1	On-premises Active Directory
Device2	Azure AD
Device3	Workgroup

The User Sign-In settings are configured as shown in the following exhibit.



For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
When accessing the Azure portal from Device1, User1 will sign in automatically by using SSO.	○	○
When accessing the Azure portal from Device2, User1 will sign in automatically by using SSO.	○	○
When accessing the Azure portal from Device3, User1 will sign in automatically by using SSO.	○	○

Hide Solution | Discussion 27

Correct Answer:

Answer Area

Statements	Yes	No
When accessing the Azure portal from Device1, User1 will sign in automatically by using SSO.	○	○
When accessing the Azure portal from Device2, User1 will sign in automatically by using SSO.	○	○
When accessing the Azure portal from Device3, User1 will sign in automatically by using SSO.	○	○

Box 1: Yes -
Seamless SSO needs the user's device to be domain-joined only, but it is not used on Azure AD Joined or Hybrid Azure AD joined devices. SSO on Azure AD joined, Hybrid Azure AD joined, and Azure AD registered devices works based on the primary refresh token.

Box 2: No -

Box 3: No -
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sso

Question #17*Topic 2*
You create a new Azure subscription. You create a resource group named RG1. In RG1, you create the resources shown in the following table.

Name	Type
VNET1	Virtual network
VM1	Virtual machine
GWSN1	Gateway subnet
VPNGW1	Virtual network gateway

You need to configure an encrypted tunnel between your on-premises network and VNET1.
Which two additional resources should you create in Azure? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. a VPN gateway
- B. a site-to-site connection
- C. a point-to-site configuration
- D. a VNet-to-VNet connection
- E. a local network gateway

Hide Solution Discussion 49

Correct Answer: *AE*
A Site-to-Site VPN gateway connection is used to connect your on-premises network to an Azure virtual network over an IPsec/IKE (IKEv1 or IKEv2) VPN tunnel.
This type of connection requires a VPN device, a local network gateway, located on-premises that has an externally facing public IP address assigned to it.
Finally, create a Site-to-Site VPN connection between your virtual network gateway and your on-premises VPN device.
Reference:
https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-portal

Question #18*Topic 2*
You plan to create an Azure Storage account named storage1 that will store blobs and be accessed by Azure Databricks.
You need to ensure that you can set permissions for individual blobs by using Azure Active Directory (Azure AD) authentication.
Which Advanced setting should you enable for storage1?

- A. Large file shares
- B. Hierarchical namespace
- C. NFS v3
- D. Blob soft delete

Hide Solution Discussion 4

Correct Answer: *B*
Question: Do I have to enable support for ACLs?
No. Access control via ACLs is enabled for a storage account as long as the Hierarchical Namespace (HNS) feature is turned ON.
Note 1: We [Microsoft] are pleased to share the general availability of Azure Active Directory (AD) based access control for Azure Storage Blobs and Queues.
Enterprises can now grant specific data access permissions to users and service identities from their Azure AD tenant using Azureג€™s Role-based access control
(RBAC).
Note 2: Azure Data Lake Storage Gen2 implements an access control model that supports both Azure role-based access control (Azure RBAC) and POSIX-like access control lists (ACLs).
You can associate a security principal with an access level for files and directories. These associations are captured in an access control list (ACL). Each file and directory in your storage account has an access control list. When a security principal attempts an operation on a file or directory, An ACL check determines whether that security principal (user, group, service principal, or managed identity) has the correct permission level to perform the operation.
Incorrect Answers:
D: Blob soft delete protects your data from being accidentally or erroneously modified or deleted. When blob soft delete is enabled for a storage account, blobs, blob versions, and snapshots in that storage account may be recovered after they are deleted, within a retention period that you specify.
Reference:
https://docs.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-access-control#access-control-lists-on-files-and-directories https://azure.microsoft.com/en-us/blog/azure-storage-support-for-azure-ad-based-access-control-now-generally-available/

Question #19*Topic 2*
HOTSPOT -
You have an Azure subscription that includes an Azure key vault named Vault1.
You create the Azure virtual machines shown in the following table.

Name	Operating system disk type	Use managed disks
VM1	Premium SSD	No
VM2	Standard HDD	Yes
VM3	Standard SSD	Yes

You enable Azure Disk Encryption for all the virtual machines and use the ג€"VolumeType All parameter.
You add data disks to the virtual machines as shown in the following table.

Name	Virtual machine	Storage account type
VM1-Disk1	VM1	Premium SSD
VM2-Disk1	VM2	Standard SSD
VM3-Disk1	VM3	Standard HDD

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
VM1-Disk1 is encrypted automatically by using Azure Disk Encryption.	○	○
VM2-Disk1 is encrypted automatically by using Azure Disk Encryption.	○	○
VM3-Disk1 is encrypted automatically by using Azure Disk Encryption.	○	○

Hide Solution | Discussion 43

Correct Answer:

Answer Area

Statements	Yes	No
VM1-Disk1 is encrypted automatically by using Azure Disk Encryption.	○	○
VM2-Disk1 is encrypted automatically by using Azure Disk Encryption.	○	○
VM3-Disk1 is encrypted automatically by using Azure Disk Encryption.	○	○

Premium and standard, but not basic, account types support disk encryption.
Disk encryption requires managed disks.
Reference:
https://docs.microsoft.com/en-us/azure/security/azure-security-disk-encryption-overview

Question #20*Topic 2*
You have the following Azure Active Directory (Azure AD) tenants:
☞ Contoso.onmicrosoft.com: Linked to a Microsoft 365 tenant and syncs to an Active Directory forest named contoso.com by using password hash synchronization
☞ Contosoazure.onmicrosoft.com: Linked to an Azure subscription named Subscription1
You need to ensure that you can assign the users in contoso.com access to the resources in Subscription1.
What should you do?

- A. Associate Subscription1 to contoso.onmicrosoft.com. Reassign all the roles in Subscription1.
- B. Configure the existing Azure AD Connect server to sync contoso.com to contosoazure.onmicrosoft.com.

- C. Configure contoso.onmicrosoft.com to use pass-through authentication.
- D. Configure contosoazure.onmicrosoft.com to use pass-through authentication.

Hide Solution Discussion 5

Correct Answer: *A*
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/plan-connect-topologies#multiple-forests-multiple-sync-servers-to-one-azure-ad-tenant

Question #21*Topic 2*
You have several Azure web apps that use access keys to access databases.
You plan to migrate the access keys to Azure Key Vault. Each app must authenticate by using Azure Active Directory (Azure AD) to gain access to the access keys.
What should you create in Azure to ensure that the apps can access the access keys?

- A. managed identities
- B. managed applications
- C. Azure policies
- D. an App Service plan

Hide Solution Discussion 6

Correct Answer: *A*
Azure Key Vault provides a way to securely store credentials and other secrets, but your code needs to authenticate to Key Vault to retrieve them. Managed identities for Azure resources overview helps to solve this problem by giving Azure services an automatically managed identity in Azure AD. You can use this identity to authenticate to any service that supports Azure AD authentication, including Key Vault, without having to display credentials in your code.
Reference:
https://docs.microsoft.com/en-us/azure/key-vault/general/tutorial-net-create-vault-azure-web-app

Question #22*Topic 2*
You have an Azure key vault named KV1.
You need to implement a process that will digitally sign the blobs stored in Azure Storage.
What is required in KV1 to sign the blobs?

- A. a key
- B. a secret
- C. a certificate

Hide Solution Discussion 52

Correct Answer: *B*
Use an Azure key vault secret to key of your blob storage account container.
Reference:
https://docs.microsoft.com/en-us/azure/key-vault/general/integrate-databricks-blob-storage

Question #23*Topic 2*
You set the multi-factor authentication status for a user named admin1@contoso.com to Enabled.
Admin1 accesses the Azure portal by using a web browser.
Which additional security verifications can Admin1 use when accessing the Azure portal?

- A. a phone call, an email message that contains a verification code, and a text message that contains an app password.
- B. an app password, a text message that contains a verification code, and a verification code sent from the Microsoft Authenticator app.
- C. an app password, a text message that contains a verification code, and a notification sent from the Microsoft Authenticator app.
- D. a phone call, a text message that contains a verification code, and a notification or a verification code sent from the Microsoft Authenticator app.

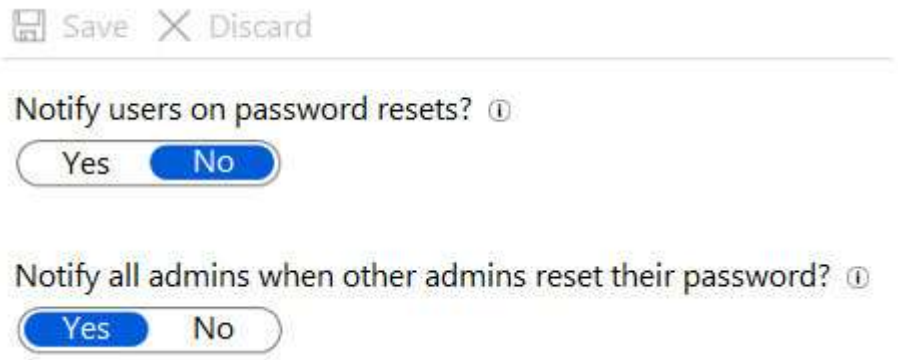
Hide Solution | Discussion 7

Correct Answer: *D*
The Microsoft Authenticator app can help prevent unauthorized access to accounts and stop fraudulent transactions by pushing a notification to your smartphone or tablet. Users view the notification, and if it's legitimate, select Verify. Otherwise, they can select Deny.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-authentication-methods

Question #24*Topic 2*
HOTSPOT -
You have an Azure Active Directory (Azure AD) tenant that contains the user groups shown in the following table.

Name	Role	Member of
User1	Global administrator	*None*
User2	User administrator	Group1
User3	Password administrator	Group1
User4	*None*	Group1

You enable self-service password reset (SSPR) for Group1.
You configure the Notifications settings as shown in the following exhibit.



For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
User1 gets a notification when User3 resets her password by using SSPR.	○	○
User3 gets a notification when User3 resets her password by using SSPR.	○	○
User1 gets a notification when User2 resets the password of User4.	○	○

Hide Solution | Discussion 33

Correct Answer:

Answer Area

Statements	Yes	No
User1 gets a notification when User3 resets her password by using SSPR.	○	○
User3 gets a notification when User3 resets her password by using SSPR.	○	○
User1 gets a notification when User2 resets the password of User4.	○	○

Box 1: Yes -
Notify all admins when other admins reset their passwords: Yes.

Box 2: No -
Notify users on password resets: No.

Box 3: No -
⇨ Notify users on password resets
If this option is set to Yes, then users resetting their password receive an email notifying them that their password has been changed. The email is sent via the
SSPR portal to their primary and alternate email addresses that are on file in Azure AD. No one else is notified of the reset event.

☞ Notify all admins when other admins reset their passwords
If this option is set to Yes, then all administrators receive an email to their primary email address on file in Azure AD. The email notifies them that another administrator has changed their password by using SSPR.
Example: There are four administrators in an environment. Administrator A resets their password by using SSPR. Administrators B, C, and D receive an email alerting them of the password reset.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-sspr-howitworks
https://docs.microsoft.com/en-us/azure/active-directory/authentication/tutorial-enable-sspr

Question #25*Topic 2*
Your company has an Azure subscription.
You enable multi-factor authentication (MFA) for all users.
The company's help desk reports an increase in calls from users who receive MFA requests while they work from the company's main office.
You need to prevent the users from receiving MFA requests when they sign in from the main office.
What should you do?

- A. From Conditional access in Azure Active Directory (Azure AD), create a named location.
- B. From the MFA service settings, create a trusted IP range.
- C. From Conditional access in Azure Active Directory (Azure AD), create a custom control.
- D. From Azure Active Directory (Azure AD), configure organizational relationships.

Hide Solution Discussion 40
Correct Answer: *B*
The first thing you may want to do, before enabling Multi-Factor Authentication for any users, is to consider configuring some of the available settings. One of the most important features is a trusted IPs list. This will allow you to whitelist a range of IPs for your network. This way, when users are in the office, they will not get prompted with MFA, and when they take their devices elsewhere, they will. Here's how to do it:
Log in to your Azure Portal.
Navigate to Azure AD > Conditional Access > Named locations.
From the top toolbar select Configure MFA trusted IPs.
Reference:
https://www.kraftkennedy.com/implementing-azure-multi-factor-authentication/

Question #26*Topic 2*
HOTSPOT -
You have an Azure logic app named App1 and an Azure Service Bus queue named Queue1.
You need to ensure that App1 can read messages from Queue1. App1 must authenticate by using Azure Active Directory (Azure AD).
What should you do? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

On App1:	Add a logic app step Configure Access control (IAM) Regenerate the access key Turn on the managed identity
On Queue1:	Add a read-only lock Add a shared access policy Configure Access control (IAM) Modify the properties

Hide Solution | Discussion 8

Correct Answer:

Answer Area

On App1:	Add a logic app step Configure Access control (IAM) Regenerate the access key **Turn on the managed identity**
On Queue1:	Add a read-only lock Add a shared access policy **Configure Access control (IAM)** Modify the properties

On App1: Turn on the managed identity
To use Service Bus with managed identities, you need to assign the identity the role and the appropriate scope. The procedure in this section uses a simple application that runs under a managed identity and accesses Service Bus resources.
Once the application is created, follow these steps:

1. Go to Settings and select Identity.
2. Select the Status to be On.
3. Select Save to save the setting.

On Queue1: Configure Access Control (IAM)

Azure Active Directory (Azure AD) authorizes access rights to secured resources through role-based access control (RBAC). Azure Service Bus defines a set of built-in RBAC roles that encompass common sets of permissions used to access Service Bus entities and you can also define custom roles for accessing the data.

Assign RBAC roles using the Azure portal

In the Azure portal, navigate to your Service Bus namespace. Select Access Control (IAM) on the left menu to display access control settings for the namespace.

If you need to create a Service Bus namespace.

Select the Role assignments tab to see the list of role assignments. Select the Add button on the toolbar and then select Add role assignment.

Reference:

https://docs.microsoft.com/en-us/azure/service-bus-messaging/authenticate-application

https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-managed-service-identity

Question #27*Topic 2*

You have the following Azure Active Directory (Azure AD) tenants:

☞ Contoso.onmicrosoft.com: Linked to a Microsoft 365 tenant and syncs to an Active Directory forest named contoso.com by using password hash synchronization

☞ Contosoazure.onmicrosoft.com: Linked to an Azure subscription named Subscription1

You need to ensure that you can assign the users in contoso.com access to the resources in Subscription1.

What should you do?

- A. Create an Azure management group that contains Subscription1.
- B. Configure the existing Azure AD Connect server to sync contoso.com to contosoazure.onmicrosoft.com.
- C. Deploy a second Azure AD Connect server and sync contoso.com to contosoazure.onmicrosoft.com.
- D. Create guest accounts for all the contoso.com users in contosoazure.onmicrosoft.com.

Hide Solution Discussion 14

Correct Answer: *C*

Azure AD Connect allows you to quickly onboard to Azure AD and Office 365.

In this topology, one Azure AD Connect sync server is connected to each Azure AD tenant. The Azure AD Connect sync servers must be configured for filtering so that each has a mutually exclusive set of objects to operate on. You can, for example, scope each server to a particular domain or organizational unit.

Reference:

https://docs.microsoft.com/en-us/azure/active-directory/hybrid/plan-connect-topologies

Question #28*Topic 2*
You have an application named App1 that does not support Azure Active Directory (Azure AD) authentication.
You need to ensure that App1 can send messages to an Azure Service Bus queue. The solution must prevent App1 from listening to the queue.
What should you do?

- A. Configure Access control (IAM) for the Service Bus.
- B. Add a shared access policy to the queue.
- C. Modify the locks of the queue.
- D. Configure Access control (IAM) for the queue.

Hide Solution Discussion 14
Correct Answer: *B*
There are two ways to authenticate and authorize access to Azure Service Bus resources: Azure Activity Directory (Azure AD) and Shared Access Signatures
(SAS).
Each Service Bus namespace and each Service Bus entity has a Shared Access Authorization policy made up of rules.
Reference:
https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-authentication-and-authorization https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-sas

Question #29*Topic 2*
An administrator plans to create a function app in Azure that will have the following settings:
- Runtime stack: .NET Core
- Operating System: Linux
- Plan type: Consumption
- Enable Application Insights: Yes

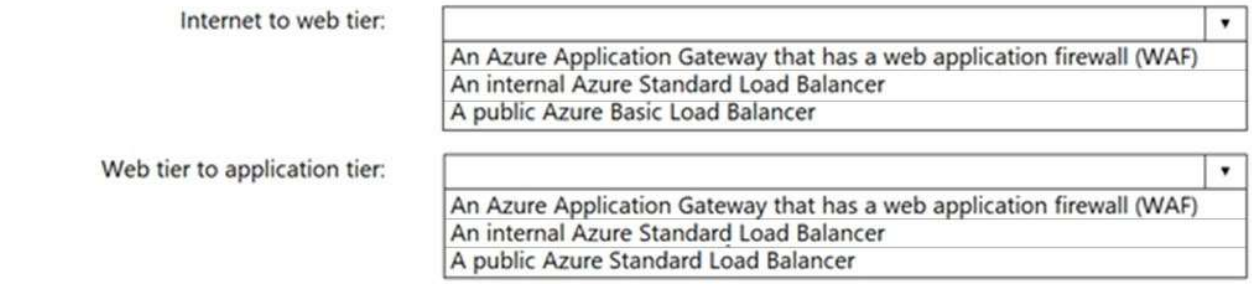
You need to ensure that you can back up the function app.
Which settings should you recommend changing before creating the function app?

- A. Runtime stack
- B. Enable Application Insights
- C. Operating System
- D. Plan type

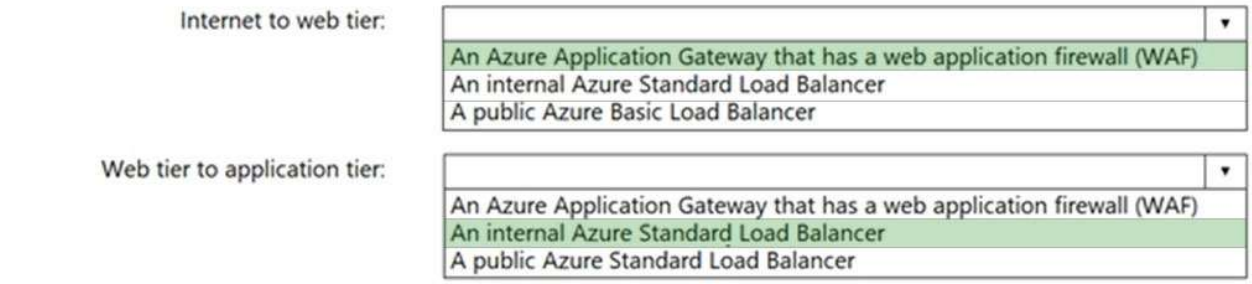
Hide Solution Discussion 10
Correct Answer: *D*
The Backup and Restore feature requires the App Service plan to be in the Standard, Premium or Isolated tier.
Reference:

https://docs.microsoft.com/en-us/azure/app-service/manage-backup#requirements-and-restrictions

Question #30*Topic 2*
HOTSPOT -
You have an Azure subscription.
You plan to deploy an app that has a web front end and an application tier.
You need to recommend a load balancing solution that meets the following requirements:
☞ Internet to web tier:
- Provides URL-based routing
- Supports connection draining
- Prevents SQL injection attacks
☞ Web tier to application tier:
- Provides port forwarding
- Supports HTTPS health probes
- Supports an availability set as a backend pool
Which load balancing solution should you recommend for each tier? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:
Answer Area



Hide Solution | Discussion 10
Correct Answer:
Answer Area



Box 1: An Azure Application Gateway that has a web application firewall (WAF)
Azure Application Gateway offers a web application firewall (WAF) that provides centralized

protection of your web applications from common exploits and vulnerabilities. Web applications are increasingly targeted by malicious attacks that exploit commonly known vulnerabilities. SQL injection and cross-site scripting are among the most common attacks.
Application Gateway operates as an application delivery controller (ADC). It offers Secure Sockets Layer (SSL) termination, cookie-based session affinity, round- robin load distribution, content-based routing, ability to host multiple websites, and security enhancements.
Box 2: An internal Azure Standard Load Balancer
The internet to web tier is the public interface, while the web tier to application tier should be internal.
Note: When using load-balancing rules with Azure Load Balancer, you need to specify a health probes to allow Load Balancer to detect the backend endpoint status.
Health probes support the TCP, HTTP, HTTPS protocols.
Reference:
https://docs.microsoft.com/en-us/azure/application-gateway/waf-overview
https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-custom-probe-overview

Question #31*Topic 2*
You have 10 Azure virtual machines on a subnet named Subnet1. Subnet1 is on a virtual network named VNet1.
You plan to deploy a public Azure Standard Load Balancer named LB1 to the same Azure region as the 10 virtual machines.
You need to ensure that traffic from all the virtual machines to the internet flows through LB1. The solution must prevent the virtual machines from being accessible on the internet.
Which three actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Add health probes to LB1.
- B. Add the network interfaces of the virtual machines to the backend pool of LB1.
- C. Add an inbound rule to LB1.
- D. Add an outbound rule to LB1.
- E. Associate a network security group (NSG) to Subnet1.
- F. Associate a user-defined route to Subnet1.

Hide Solution Discussion 58
Correct Answer: *ABD*
A: To allow the Load Balancer to monitor the status of your app, you use a health probe. The health probe dynamically adds or removes VMs from the Load
Balancer rotation based on their response to health checks.
B: To distribute traffic to the VMs, a backend address pool contains the IP addresses of the virtual (NICs) connected to the Load Balancer.
D: A Load Balancer rule is used to define how traffic is distributed to the VMs. Only outbound traffic is allowed.
Reference:

https://docs.microsoft.com/en-us/azure/load-balancer/tutorial-load-balancer-standard-manage-portal

Question #32*Topic 2*
You have SQL Server on an Azure virtual machine named SQL1.
You need to automate the backup of the databases on SQL1 by using Automated Backup v2 for the virtual machines. The backups must meet the following requirements:
☞ Meet a recovery point objective (RPO) of 15 minutes.
☞ Retain the backups for 30 days.
☞ Encrypt the backups at rest.
What should you provision as part of the backup solution?

- A. Elastic Database jobs
- B. Azure Key Vault
- C. an Azure Storage account
- D. a Recovery Services vault

Hide Solution Discussion 38
Correct Answer: *C*
An Azure storage account is used for storing Automated Backup files in blob storage. A container is created at this location to store all backup files. The backup file naming convention includes the date, time, and database GUID.
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/automated-backup

Question #33*Topic 2*
You have an Azure subscription that contains an Azure key vault named KeyVault1 and the virtual machines shown in the following table.

Name	Connected to
VM1	VNET1/Subnet1
VM2	VNET1/Subnet2

KeyVault1 has an access policy that provides several users with Create Key permissions.
You need to ensure that the users can only register secrets in KeyVault1 from VM1.
What should you do?

- A. Create a network security group (NSG) that is linked to Subnet1.
- B. Configure the Firewall and virtual networks settings for KeyVault1.
- C. Modify the access policy for KeyVault1.
- D. Configure KeyVault1 to use a hardware security module (HSM).

Hide Solution Discussion 39

Correct Answer: *C*
You grant data plane access by setting Key Vault access policies for a key vault.
Note 1: Grant our VMâ€™s system-assigned managed identity access to the Key Vault.â€‰â€‰
1. Select Access policies and click Add new.
2. In Configure from template, select Secret Management.
3. Choose Select Principal, and in the search field enter the name of the VM you created earlier. Select the VM in the result list and click Select.
4. Click OK to finishing adding the new access policy, and OK to finish access policy selection.
Note 2: Access to a key vault is controlled through two interfaces: the management plane and the data plane. The management plane is where you manage Key
Vault itself. Operations in this plane include creating and deleting key vaults, retrieving Key Vault properties, and updating access policies. The data plane is where you work with the data stored in a key vault. You can add, delete, and modify keys, secrets, and certificates.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad https://docs.microsoft.com/en-us/azure/key-vault/general/secure-your-key-vault2

Question #34*Topic 2*
HOTSPOT -
You have an Azure subscription named Subscription1 that contains a virtual network named VNet1.
You add the users in the following table.

User	Role
User1	Owner
User2	Security Admin
User3	Network Contributor

Which user can perform each configuration? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Add a subnet to VNet1:	User1 only User3 only User1 and User3 only User2 and User3 only User1, User2, and User3
Assign a user the Reader role to VNet1:	User1 only User2 only User3 only User1 and User2 only User2 and User3 only User1, User2, and User3

Hide Solution | Discussion 20

Correct Answer:

Answer Area

Add a subnet to VNet1:	User1 only User3 only User1 and User3 only User2 and User3 only User1, User2, and User3
Assign a user the Reader role to VNet1:	User1 only User2 only User3 only User1 and User2 only User2 and User3 only User1, User2, and User3

Box 1: User1 only.
User1: The Owner Role lets you manage everything, including access to resources.
Not User3: The Network Contributor role lets you manage networks, but not access to them.

Box 2: User1 and User2 only -
The Security Admin role: In Security Center only: Can view security policies, view security states, edit security policies, view alerts and recommendations, dismiss alerts and recommendations.
Reference:
https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles

Question #35*Topic 2*
You have an Azure subscription that contains the Azure SQL Database servers shown in the following table.

Name	Resource group	Location
SQL1	RG1	West US
SQL2	RG2	West US

The SQL Database servers have the elastic pools shown in the following table.

Name	SQL Database server	vCores	Maximum data size
Pool1	SQL1	2	16 GB
Pool2	SQL2	6	48 GB

SQL1 has the SQL databases shown in the following table.

Name	SQL Database server	vCores	Maximum data size	Elastic pool
DB1	SQL1	4	30 GB	*None*
DB2	SQL1	2	10 GB	Pool1

What will occur if you add DB1 to Pool1?

- A. The vCores on DB1 will decrease to two.
- B. The maximum data size of Pool1 will increase to 22 GB.
- C. The maximum data size of DB1 will decrease to 6 GB.
- D. The vCores on Pool1 will increase to four.

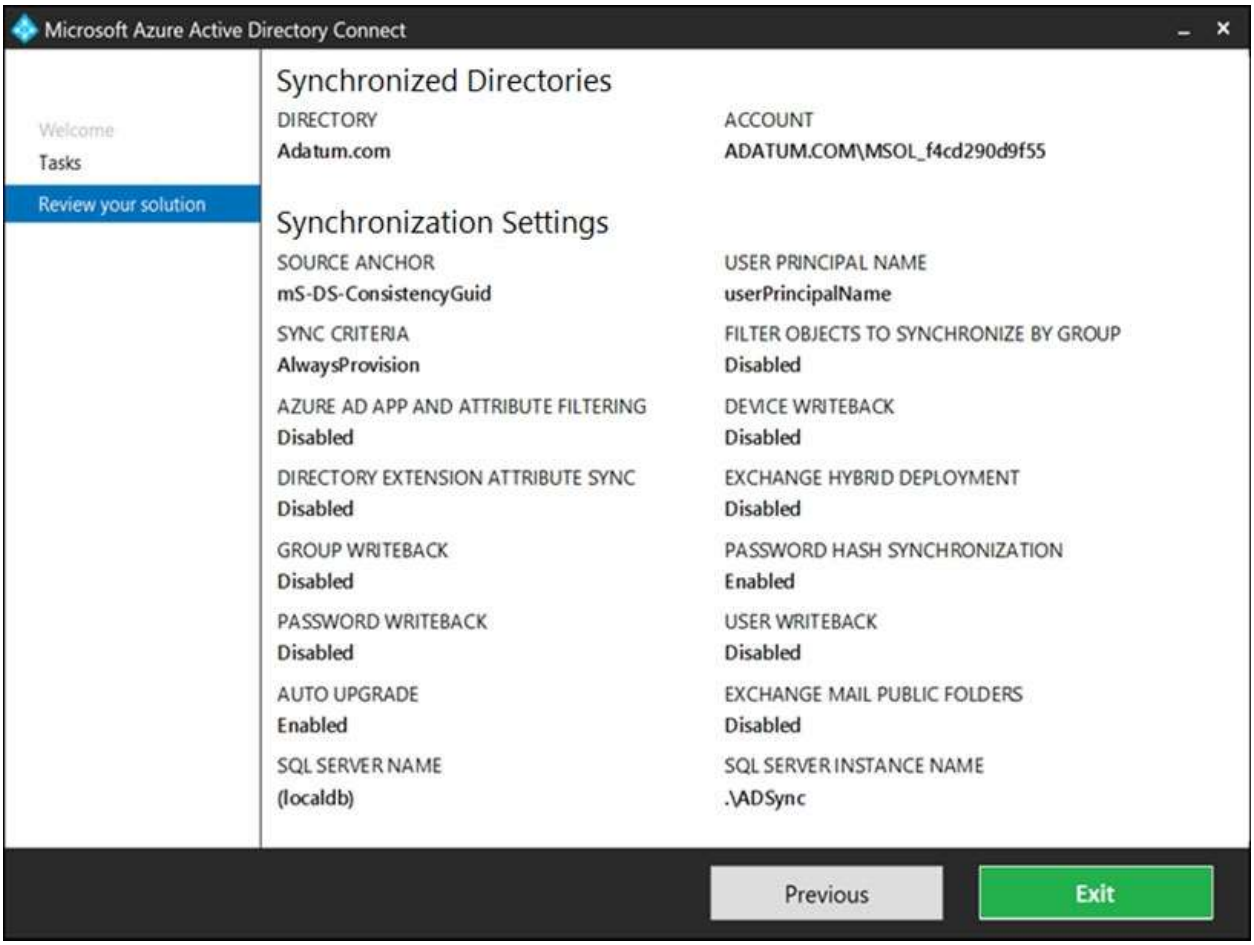
Hide Solution Discussion 11

Correct Answer: *D*

Question #36*Topic 2*

HOTSPOT -

Your network contains an Active Directory domain that is synced to Azure Active Directory (Azure AD) as shown in the following exhibit.



You have a user account configured as shown in the following exhibit.

Adam Hobbs

Adam@sk181125.onmicrosoft.com

AH

User Sign-ins

Group memberships

1

Identity

Name	First name	Last name
Adam Hobbs	Adam	Hobbs
User name	**User type**	
Adam@sk181125.onm...	Member	
Object ID	**Source**	
10ba919a-e02e...	Windows Server AD	

Job info

Job title	Department	Manager
-- --	Managers	

Settings edit

Block sign in	Usage location
No	

Contact info

Street address	State or province	Country or region	Office
-- --	-- --	-- --	-- --
City	**ZIP or postal code**	**Office phone**	**Mobile phone**
London	-- --	-- --	-- --

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
From the Azure portal, an administrator can reset the password of Adam Hobbs.	○	○
From the Azure portal, an administrator can modify the job title for the user account of Adam Hobbs.	○	○
From the Azure portal, an administrator can modify the usage location for the user account of Adam Hobbs.	○	○

Hide Solution | Discussion 9

Correct Answer:

Answer Area

Statements	Yes	No
From the Azure portal, an administrator can reset the password of Adam Hobbs.	○	○
From the Azure portal, an administrator can modify the job title for the user account of Adam Hobbs.	○	○
From the Azure portal, an administrator can modify the usage location for the user account of Adam Hobbs.	○	○

Box 1: No -
Password writeback is disabled.
Note: Having a cloud-based password reset utility is great but most companies still have an on-premises directory where their users exist. How does Microsoft support keeping traditional on-premises Active Directory (AD) in sync with password changes in the cloud? Password writeback is a feature enabled with Azure
AD Connect that allows password changes in the cloud to be written back to an existing on-premises directory in real time.

Box 2: No -

Box 3: Yes -
Yes, there is an Edit link for Location Info.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-sspr-writeback

Question #37*Topic 2*
HOTSPOT -
You have an Azure subscription named Subscription1.
In Subscription1, you create an alert rule named Alert1.
The Alert1 action group is configured as shown in the following exhibit.

```
ResourceGroupName : default-activitylogalerts
GroupShortName    : AG1
Enabled           : True
EmailReceivers    : {Action1_-EmailAction-}
SMSReceivers      : {Action1_-SMSAction-}
WebhookReceivers  : {}
Id                : /subscriptions/a4fde29b-d56a-4f6c-8298-6c53cd0b720c/resourceGroups/
default-activitylogalerts/providers/microsoft.insights/actionGroups/ActionGroup1
Name              : ActionGroup1
Type              : Microsoft.Insights/ActionGroups
Location          : Global
Tags              : {}
```

Alert1 alert criteria is triggered every minute.
Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

The number of email messages that Alert1 will send in an hour is **[answer choice]**.

- 0
- 4
- 6
- 12
- 60

The number of SMS messages that Alert1 will send in an hour is **[answer choice]**.

- 0
- 4
- 6
- 12
- 60

Hide Solution | Discussion 6

Correct Answer:

Answer Area

The number of email messages that Alert1 will send in an hour is **[answer choice].**

0
4
6
12
60

The number of SMS messages that Alert1 will send in an hour is **[answer choice].**

0
4
6
12
60

Box 1: 60 -
One alert per minute will trigger one email per minute.

Box 2: 12 -
No more than 1 SMS every 5 minutes can be send, which equals 12 per hour.
Note: Rate limiting is a suspension of notifications that occurs when too many are sent to a particular phone number, email address or device. Rate limiting ensures that alerts are manageable and actionable.
The rate limit thresholds are:
- SMS: No more than 1 SMS every 5 minutes.
- Voice: No more than 1 Voice call every 5 minutes.
- Email: No more than 100 emails in an hour.
- Other actions are not rate limited.

Reference:
https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/azure-monitor/overview.md

Question #38*Topic 2*
You download an Azure Resource Manager template based on an existing virtual machine. The template will be used to deploy 100 virtual machines.
You need to modify the template to reference an administrative password. You must prevent the password from being stored in plain text.
What should you create to store the password?

- A. an Azure Key Vault and an access policy
- B. Azure Active Directory (AD) Identity Protection and an Azure policy
- C. a Recovery Services vault and a backup policy
- D. an Azure Storage account and an access policy

Hide Solution | Discussion 4
Correct Answer: *A*

Question #39*Topic 2*
You have an Azure Storage account named storage1 that is accessed by several applications.
An administrator manually rotates the access keys for storage1.
After the rotation, the applications fail to access the storage account.
A developer manually modifies the applications to resolve the issue.
You need to implement a solution to rotate the access keys automatically. The solution must minimize the need to update the applications once the solution is implemented.
What should you include in the solution?

- A. an Azure AD enterprise application
- B. Azure Key Vault
- C. Azure Logic Apps
- D. an Azure Desired State Configuration (DSC) extension

Hide Solution Discussion 3

Correct Answer: *B*
Microsoft recommends that you use Azure Key Vault to manage your access keys, and that you regularly rotate and regenerate your keys. Using Azure Key Vault makes it easy to rotate your keys without interruption to your applications. You can also manually rotate your keys.
Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-account-keys-manage

Question #40*Topic 2*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription.
You have an on-premises file server named Server1 that runs Windows Server 2019.
You manage Server1 by using Windows Admin Center.
You need to ensure that if Server1 fails, you can recover Server1 files from Azure.
Solution: You create an Azure Storage account and an Azure Storage Sync service. You configure Azure File Sync for Server1.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 4

Correct Answer: *A*
Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms

Windows Server into a quick cache of your Azure file share.
Azure Files offers fully managed file shares in the cloud that are accessible via the industry standard Server Message Block (SMB) protocol. Azure file shares can be mounted concurrently by cloud or on-premises deployments of Windows, Linux, and macOS. Additionally, Azure file shares can be cached on Windows
Servers with Azure File Sync for fast access near where the data is being used.
Azure file shares can be used to:
Replace or supplement on-premises file servers:
Azure Files can be used to completely replace or supplement traditional on-premises file servers or NAS devices. Popular operating systems such as Windows, macOS, and Linux can directly mount Azure file shares wherever they are in the world. Azure file shares can also be replicated with Azure File Sync to Windows
Servers, either on-premises or in the cloud, for performance and distributed caching of the data where it's being used.
Reference:
https://docs.microsoft.com/en-us/azure/storage/files/storage-files-introduction

Question #41*Topic 2*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription.
You have an on-premises file server named Server1 that runs Windows Server 2019.
You manage Server1 by using Windows Admin Center.
You need to ensure that if Server1 fails, you can recover Server1 files from Azure.
Solution: From the Azure portal, you create a Recovery Services vault. On Server1, you install the Azure Backup agent and you successfully perform a backup.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 11

Correct Answer: ***B***
Instead use Azure Storage Sync service and configure Azure File.
Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share.
Reference:
https://docs.microsoft.com/en-us/azure/storage/files/storage-files-introduction

Question #42*Topic 2*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription.
You have an on-premises file server named Server1 that runs Windows Server 2019.
You manage Server1 by using Windows Admin Center.
You need to ensure that if Server1 fails, you can recover Server1 files from Azure.
Solution: You register Windows Admin Center in Azure and configure Azure Backup.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution | Discussion 5

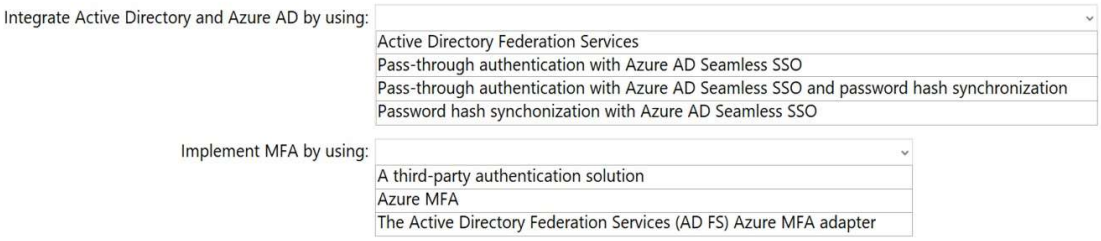
Correct Answer: ***B***
Instead use Azure Storage Sync service and configure Azure File.
Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share.
Reference:
https://docs.microsoft.com/en-us/azure/storage/files/storage-files-introduction

Question #43*Topic 2*

HOTSPOT -
You need to design an authentication solution that will integrate on-premises Active Directory and Azure Active Directory (Azure AD). The solution must meet the following requirements:
☞ Active Directory users must not be able to sign in to Azure AD-integrated apps outside of the sign-in hours configured in the Active Directory user accounts.
☞ Active Directory users must authenticate by using multi-factor authentication (MFA) when they sign in to Azure AD-integrated apps.
☞ Administrators must be able to obtain Azure AD-generated reports that list the Active Directory users who have leaked credentials.
☞ The infrastructure required to implement and maintain the solution must be minimized.
What should you include in the solution? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area



Hide Solution Discussion 8

Correct Answer:

Answer Area

Box 1: Pass-through Authentication with Azure AD Seamless SSO
Azure AD Seamless SSO versus Active Directory Federation Services
Companies with a security requirement to immediately enforce on-premises user account states, password policies, and sign-in hours might use Azure AD Pass-through Authentication.
You can combine Pass-through Authentication with the Seamless Single Sign-On feature.
Note: Azure AD supports the following authentication methods for hybrid identity solutions.

- ☞ Azure AD password hash synchronization
- ☞ Azure AD Pass-through Authentication

Box 2: Azure MFA -
One key benefit with Azure AD Pass-through Authentication is that it works seamlessly with Azure MFA.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/choose-ad-authn

Question #44*Topic 2*

You have resources in three Azure regions. Each region contains two virtual machines. Each virtual machine has a public IP address assigned to its network interface and a locally installed application named App1.
You plan to implement Azure Front Door-based load balancing across all the virtual machines.
You need to ensure that App1 on the virtual machines will only accept traffic routed from Azure Front Door.
What should you implement?

- A. Azure Private Link
- B. service endpoints

- C. network security groups (NSGs) with service tags
- D. network security groups (NSGs) with application security groups

Hide Solution Discussion 21

Correct Answer: ***C***
Configure IP ACLing for your backends to accept traffic from Azure Front Door's backend IP address space and Azure's infrastructure services only. Refer the IP details below for ACLing your backend:
☞ Refer AzureFrontDoor.Backend section in Azure IP Ranges and Service Tags for Front Door's IPv4 backend IP address range or you can also use the service tag AzureFrontDoor.Backend in your network security groups.
Reference:
https://docs.microsoft.com/en-us/azure/frontdoor/front-door-faq

Question #45*Topic 2*

You have an Azure key vault named KV1.
You need to ensure that applications can use KV1 to provision certificates automatically from an external certification authority (CA).
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. From KV1, create a certificate issuer resource.
- B. Obtain the CA account credentials.
- C. Obtain the root CA certificate.
- D. From KV1, create a certificate signing request (CSR).
- E. From KV1, create a private key,

Hide Solution Discussion 42

Correct Answer: ***CD***
C: Obtain the root CA certificate (step 4 in the picture below)
D: From KV1, create a certificate signing request (CSR) (step 2 in the picture below)
Note:
Creating a certificate with a CA not partnered with Key Vault
This method allows working with other CAs than Key Vault's partnered providers, meaning your organization can work with a CA of its choice.

The following step descriptions correspond to the green lettered steps in the preceding diagram.

1. In the diagram above, your application is creating a certificate, which internally begins by creating a key in your key vault.
2. Key Vault returns to your application a Certificate Signing Request (CSR).
3. Your application passes the CSR to your chosen CA.
4. Your chosen CA responds with an X509 Certificate.
5. Your application completes the new certificate creation with a merger of the X509 Certificate from your CA.

Reference:

https://docs.microsoft.com/en-us/azure/key-vault/certificates/certificate-scenarios

Question #46*Topic 2*

You create the following Azure role definition.

```
{
    "Name":  "Role1",
    "Id":  "80808080-8080-8080-8080-808080808080",
    "IsCustom":  false,
    "Description":  "",
    "Actions":  [
                    "Microsoft.Storage/*/read",
                    "Microsoft.Network/*/read",
                    "Microsoft.Compute/*/read",
                    "Microsoft.Compute/virtualMachines/start/action",
                    "Microsoft.Compute/virtualMachines/restart/action",
                    "Microsoft.Authorization/*/read"],
    "NotActions":  [  ],
    "DataActions":  [ ],
    "NotDataActions":  [   ],
    "AssignableScopes":  [  ]
}
```

You need to create Role1 by using the role definition.
Which two values should you modify before you create Role1? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. AssignableScopes
- B. Description
- C. DataActions
- D. IsCustom
- E. Id

Hide Solution | Discussion 3

Correct Answer: ***AD***
Part of example:
"IsCustom": true,
"AssignableScopes": [
"/subscriptions/{subscriptionId1}",
"/subscriptions/{subscriptionId2}",
"/subscriptions/{subscriptionId3}"
The following shows what a custom role looks like as displayed in JSON format. This custom role can be used for monitoring and restarting virtual machines.
{
"Name": "Virtual Machine Operator",
"Id": "88888888-8888-8888-8888-888888888888",

"IsCustom": true,
"Description": "Can monitor and restart virtual machines.",
"Actions": [
"Microsoft.Storage/*/read",
"Microsoft.Network/*/read",
"Microsoft.Compute/*/read",
"Microsoft.Compute/virtualMachines/start/action",
"Microsoft.Compute/virtualMachines/restart/action",
"Microsoft.Authorization/*/read",
"Microsoft.ResourceHealth/availabilityStatuses/read",
"Microsoft.Resources/subscriptions/resourceGroups/read",
"Microsoft.Insights/alertRules/*",
"Microsoft.Insights/diagnosticSettings/*",
"Microsoft.Support/*"
],
"NotActions": [],
"DataActions": [],
"NotDataActions": [],
"AssignableScopes": [
"/subscriptions/{subscriptionId1}",
"/subscriptions/{subscriptionId2}",
"/subscriptions/{subscriptionId3}"
]
}
Reference:
https://docs.microsoft.com/en-us/azure/role-based-access-control/custom-roles

Question #47*Topic 2*

You have the following Azure Active Directory (Azure AD) tenants:

☞ Contoso.onmicrosoft.com: Linked to a Microsoft 365 tenant and syncs to an Active Directory forest named contoso.com by using password hash synchronization

☞ Contosoazure.onmicrosoft.com: Linked to an Azure subscription named Subscription1

You need to ensure that you can assign the users in contoso.com access to the resources in Subscription1.

What should you do?

- A. Create an Azure management group that contains Subscription1.
- B. Configure contoso.onmicrosoft.com to use pass-through authentication.
- C. Create guest accounts for all the contoso.com users in contosoazure.onmicrosoft.com.
- D. Configure Active Directory Federation Services (AD FS) federation between contosoazure.onmicrosoft.com and contoso.com.

Hide Solution | Discussion 14

Correct Answer: ***D***

Question #48*Topic 2*

You are developing an application that will enable users to download content from an Azure Storage account.
The users must only be able to download the content for a period of seven days.
You need to recommend an authentication solution to access the storage account.
What should you include in the recommendation?

- A. shared access signature (SAS) tokens
- B. identity-based authentication that uses Active Directory Domain Services (AD DS)
- C. storage access key
- D. identity-based authentication that uses Azure Active Directory (Azure AD)

Hide Solution Discussion 5

Correct Answer: ***A***
Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-sas-overview

Question #1*Topic 3*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a server named Server1 that runs Windows Server 2019. Server1 is a container host.
You are creating a Dockerfile to build a container image.
You need to add a file named File1.txt from Server1 to a folder named C:\Folder1 in the container image.
Solution: You add the following line to the Dockerfile.
XCOPY File1.txt C:\Folder1\
You then build the container image.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 6

Correct Answer: ***B***
Copy is the correct command to copy a file to the container image. Furthermore, the root directory is specified as '/' and not as 'C:/'.
Reference:

https://docs.docker.com/develop/develop-images/dockerfile_best-practices/#add-or-copy
https://docs.docker.com/engine/reference/builder/

Question #2*Topic 3*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a server named Server1 that runs Windows Server 2019. Server1 is a container host.
You are creating a Dockerfile to build a container image.
You need to add a file named File1.txt from Server1 to a folder named C:\Folder1 in the container image.
Solution: You add the following line to the Dockerfile.
ADD File1.txt C:/Folder1/
You then build the container image.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution | Discussion 14

Correct Answer: ***B***
Copy is the correct command to copy a file to the container image. The ADD command can also be used. However, the root directory is specified as '/' and not as
'C:/'.
Reference:
https://docs.docker.com/develop/develop-images/dockerfile_best-practices/#add-or-copy
https://docs.docker.com/engine/reference/builder/

Question #3*Topic 3*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a server named Server1 that runs Windows Server 2019. Server1 is a container host.
You are creating a Dockerfile to build a container image.
You need to add a file named File1.txt from Server1 to a folder named C:\Folder1 in the container image.
Solution: You add the following line to the Dockerfile.
Copy-Item File1.txt C:\Folder1\File1.txt
You then build the container image.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution | Discussion 4

Correct Answer: *B*

Copy is the correct command to copy a file to the container image.

Reference:

https://docs.docker.com/develop/develop-images/dockerfile_best-practices/#add-or-copy

https://docs.docker.com/engine/reference/builder/

Question #4*Topic 3*

HOTSPOT -

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Size
ILB1	Internal load balancer	Basic
ELB1	External load balancer	Standard
AGW1	Azure Application Gateway that has web application firewall (WAF) enabled	Standard
AGW2	Azure Application Gateway	Standard_v2

You need to deploy a load-balancing solution for two Azure web apps named App1 and App2 to meet the following requirements:

☞ App1 must support command injection protection.

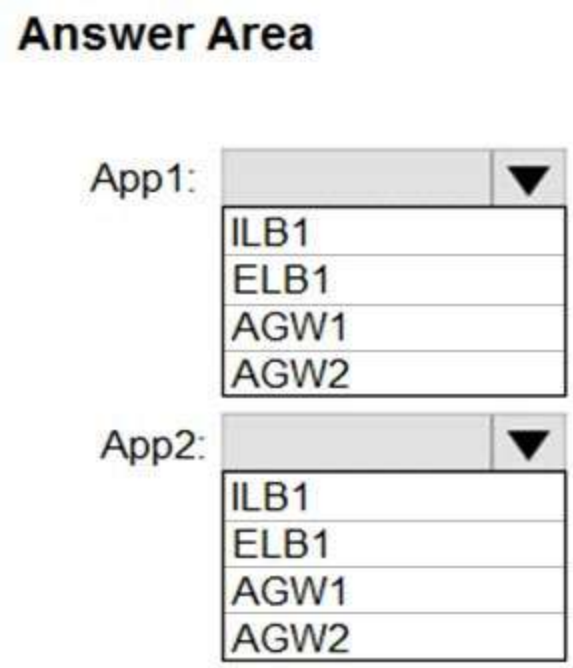
☞ App2 must be able to use a static public IP address.

☞ App1 must have a Service Level Agreement (SLA) of 99.99 percent.

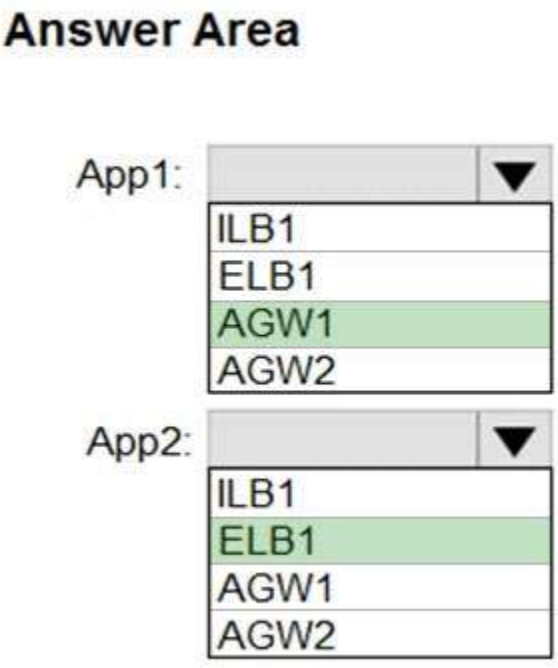
Which resource should you use as the load-balancing solution for each app? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Hide Solution | Discussion 37



Correct Answer:
Box 1: AGW1 -
Azure Application Gateway offers a web application firewall (WAF) that provides centralized protection of your web applications from common exploits and vulnerabilities. Web applications are increasingly targeted by malicious attacks that exploit commonly known vulnerabilities. SQL injection and cross-site scripting are among the most common attacks.

Box 2: ELB1 -
Public IP addresses allow Internet resources to communicate inbound to Azure resources. Public IP addresses also enable Azure resources to communicate outbound to Internet and public-facing Azure services with an IP address assigned to the resource.
Note: In Azure Resource Manager, a public IP address is a resource that has its own properties.
Some of the resources you can associate a public IP address resource with are:

- Virtual machine network interfaces
- Internet-facing load balancers
- VPN gateways
- Application gateways

Reference:
https://docs.microsoft.com/en-us/azure/application-gateway/waf-overview
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-ip-addresses-overview-arm

Question #5*Topic 3*
You have the Azure virtual networks shown in the following table.

Name	Location
VNET1	East US
VNET2	East US
VNET3	Central US

All the virtual networks are peered.
You have the virtual machines shown in the following table.

Name	Operating system	Connected to
VM1	Red Hat Enterprise Linux 7.7	VNET1
VM2	Windows Server 2019	VNET2
VM3	Windows Server 2019	VNET3

You deploy an Azure Bastion named Bastion1 to VNET1.
To which virtual machines can you connect by using Bastion1?

- A. VM1 only
- B. VM1 and VM2 only
- C. VM2 and VM3 only
- D. VM1, VM2, and VM3

Hide Solution | Discussion 12
Correct Answer: *A*
Connect to a VM through Azure Bastion.
When you click on Connect in an Azure VM, you have an additional option called Bastion. In order to get this option, the Azure VM must belong to the same virtual network as the Azure Bastion.

Reference:
https://www.starwindsoftware.com/blog/overview-of-microsoft-azure-bastion

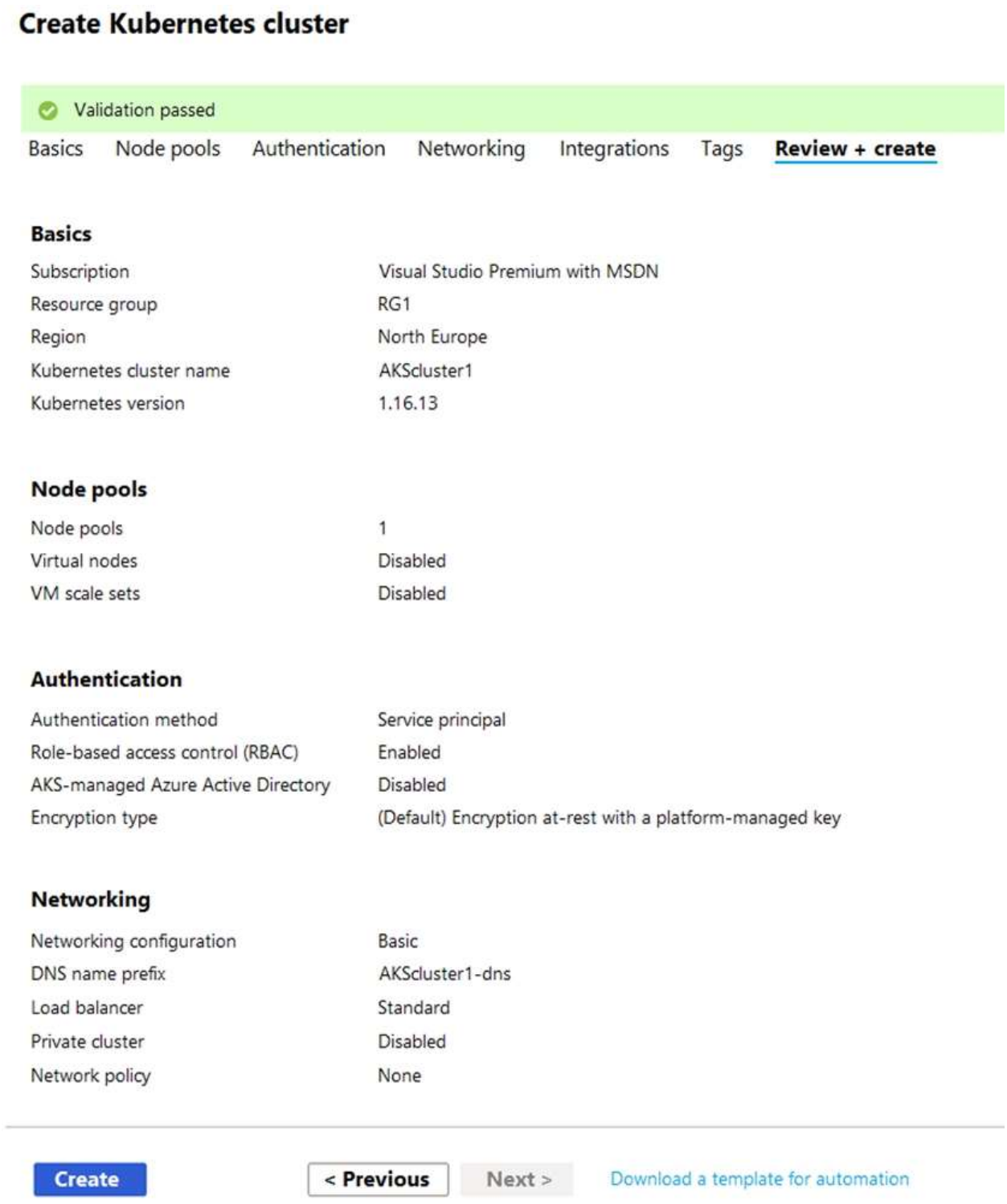
Question #6*Topic 3*
You have an Azure Kubernetes Service (AKS) cluster named Clus1 in a resource group named RG1.
An administrator plans to manage Clus1 from an Azure AD-joined device.
You need to ensure that the administrator can deploy the YAML application manifest file for a container application.
You install the Azure CLI on the device.
Which command should you run next?

- A. kubectl get nodes
- B. az aks enable-addons --addons virtual-node -name Clust1 --resource-group RG1
- C. az aks install-cli
- D. kubectl apply ג€"f app1.yaml

Hide Solution Discussion 18

Correct Answer: *D*
kubectl apply ג€"f appl.yaml applies a configuration change to a resource from a file or stdin.
Incorrect Answers:
A: kubectl get nodes gets a list of all nodes.
B: az aks enable-addons enable Kubernetes addons, in this case a virtual node.
C: az aks install-cli download and install the Kubernetes command-line tool.
Reference:
https://kubernetes.io/docs/reference/kubectl/overview/
https://docs.microsoft.com/en-us/cli/azure/aks

Question #7*Topic 3*
You create an Azure Kubernetes Service (AKS) cluster that uses B2s node size. The cluster configured as shown in the exhibit. (Click the Exhibit tab.)



You deploy a containerized application named App1 to the agentPool node pool in AKScluster1.
You need to create a containerized application named App2 that runs on four nodes of size DS3 v2.
What should you do first?

- A. Upgrade the AKS cluster.
- B. Create a new node pool.
- C. Modify the autoscaling settings for the agentPool node pool.
- D. Enable virtual nodes for the AKS cluster.

Hide Solution Discussion 7

Correct Answer: *B*

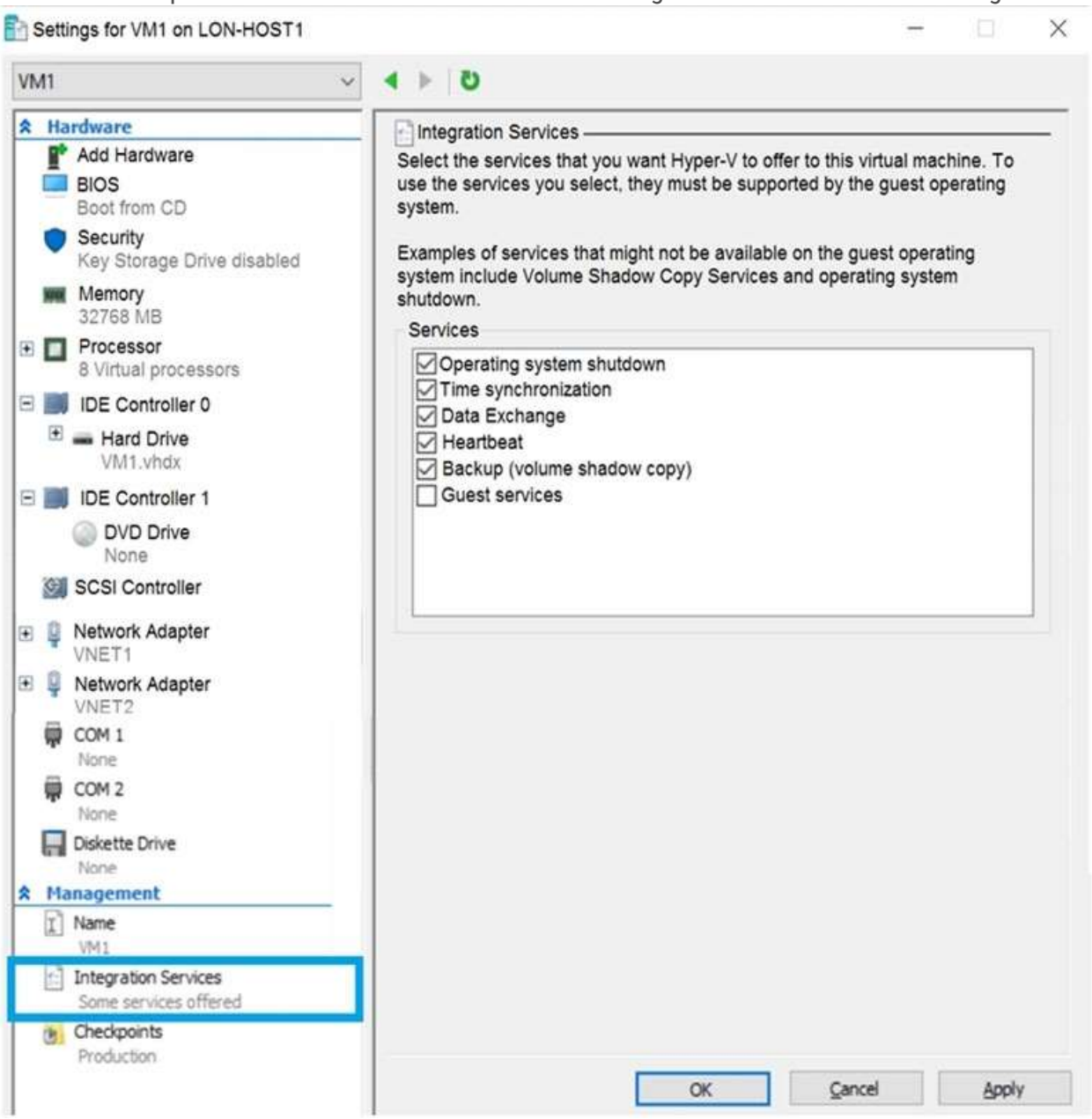
Changing the agent size is not allowed. In the future Microsoft plans to support multiple node pools wherein you can create different pools with different VM sizes.

Reference:

https://github.com/Azure/AKS/issues/132

Question #8*Topic 3*

You have an on-premises virtual machine named VM1 configured as shown in the following exhibit.



VM1 is started.
You need to create a new virtual machine image in Azure from VM1.
Which three actions should you perform before you create the new image? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Run Add-AzVhd and specify a file share as the destination.
- B. Convert the disk type to VHD.
- C. Remove the Backup (volume shadow copy) integration service.

- D. Generalize VM1.
- E. Reduce the amount of memory to 16 GB.
- F. Run Add-AzVhd and specify a blob service container as the destination.

Hide Solution Discussion 19

Correct Answer: *BDF*

D: Sysprep removes all your personal account and security information, and then prepares the machine to be used as an image.

B, F: The Add-AzureVhd cmdlet uploads on-premises virtual hard disks, in .vhd file format, to a blob storage account as fixed virtual hard disks.

Reference:

https://docs.microsoft.com/en-us/powershell/module/azurerm.compute/add-azurermvhd?view=azurermps-6.13.0 https://docs.microsoft.com/en-us/azure/virtual-machines/windows/capture-image-resource

Question #9*Topic 3*

You create an Azure Kubernetes Service (AKS) cluster and an Azure Container Registry.

You need to perform continuous deployments of a containerized application to the AKS cluster as soon as the image updates in the registry.

What should you use to perform the deployments?

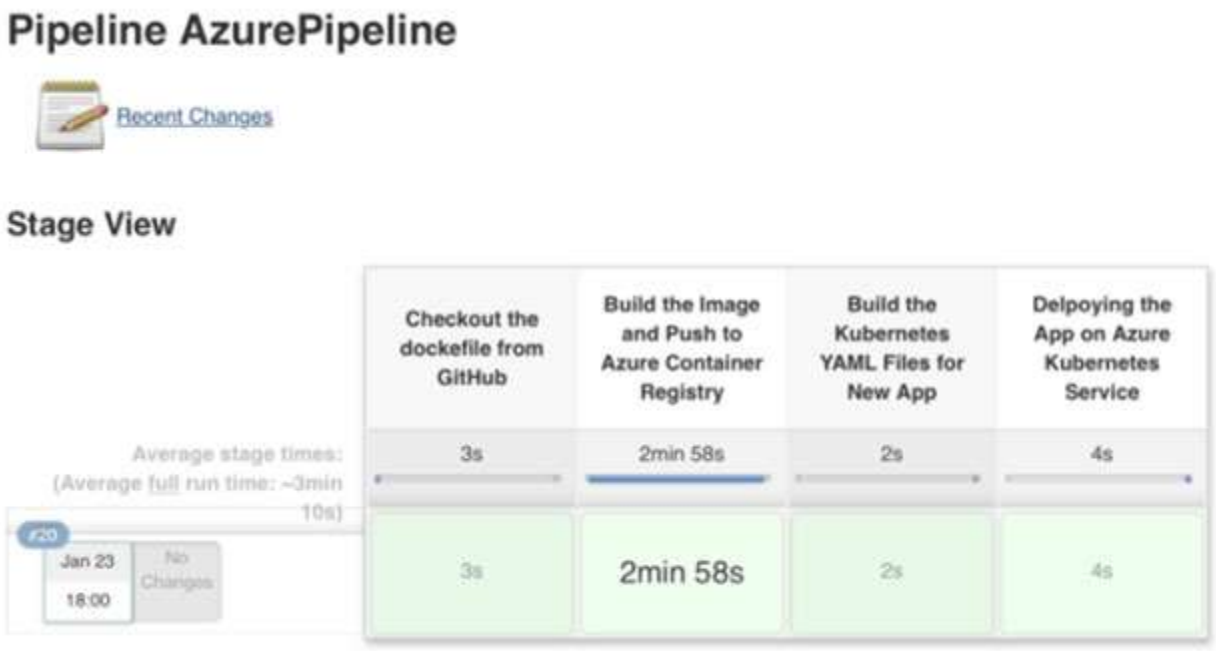
- A. an Azure Automation runbook
- B. a kubectl script from a CRON job
- C. an Azure Resource Manager template
- D. an Azure Pipelines release pipeline

Hide Solution Discussion 7

Correct Answer: *D*

You can implement a Continuous Deployment pipeline.

Example:



What the pipeline accomplishes :
Stage 1: The code gets pushed in the Github. The Jenkins job gets triggered automatically. The Dockerfile is checked out from Github.
Stage 2: Docker builds an image from the Dockerfile and then the image is tagged with the build number. Additionally, the latest tag is also attached to the image for the containers to use.
Stage 3: We have default deployment and service YAML files stored on the Jenkins server. Jenkins makes a copy of the default YAML files, make the necessary changes according to the build and put them in a separate folder.
Stage 4: kubectl was initially configured at the time of setting up AKS on the Jenkins server. The YAML files are fed to the kubectl util which in turn creates pods and services.
Reference:
https://medium.com/velotio-perspectives/continuous-deployment-with-azure-kubernetes-service-azure-container-registry-jenkins-ca337940151b

Question #10*Topic 3*
You have an Azure web app that runs in a Premium App Service plan.
Developers plan to update the app weekly.
You need to ensure that the app can be switched from the current version to the new version. The solution must meet the following requirements:
☞ Provide the developers with the ability to test the app in Azure prior to switching versions. Testing must use the same app instance.
☞ Ensure that the app version can be rolled back.
☞ Minimize downtime.
What should you do?

- A. Create a deployment slot.

- B. Copy the App Service plan.
- C. Add an instance of the app to the scale set.
- D. Create an Azure Active Directory (Azure AD) enterprise application.

Hide Solution Discussion 6

Correct Answer: *A*

Azure Functions deployment slots allow your function app to run different instances called "slots". Slots are different environments exposed via a publicly available endpoint. One app instance is always mapped to the production slot, and you can swap instances assigned to a slot on demand. There are a number of advantages to using deployment slots. The following scenarios describe common uses for slots:

☞ Different environments for different purposes: Using different slots gives you the opportunity to differentiate app instances before swapping to production or a staging slot.

☞ Easy fallbacks: After a swap with production, the slot with a previously staged app now has the previous production app. If the changes swapped into the production slot aren't as you expect, you can immediately reverse the swap to get your "last known good instance" back.

Prewarming -

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Reference:
https://docs.microsoft.com/en-us/azure/azure-functions/functions-deployment-slots

Question #11*Topic 3*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Active Directory (Azure AD) tenant named contoso.com.
A user named Admin1 attempts to create an access review from the Azure Active Directory admin center and discovers that the Access reviews settings are unavailable. Admin1 discovers that all the other Identity Governance settings are available.
Admin1 is assigned the User administrator, Compliance administrator, and Security administrator roles.
You need to ensure that Admin1 can create access reviews in contoso.com.
Solution: You create an access package.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 17

Correct Answer: *B*

You do not use access packages for Identity Governance. Instead use Azure AD Privileged Identity

Management.
Note: PIM essentially helps you manage the who, what, when, where, and why for resources that you care about. Key features of PIM include:
Conduct access reviews to ensure users still need roles
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure https://docs.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-overview

Question #12*Topic 3*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Active Directory (Azure AD) tenant named contoso.com.
A user named Admin1 attempts to create an access review from the Azure Active Directory admin center and discovers that the Access reviews settings are unavailable. Admin1 discovers that all the other Identity Governance settings are available.
Admin1 is assigned the User administrator, Compliance administrator, and Security administrator roles.
You need to ensure that Admin1 can create access reviews in contoso.com.
Solution: You purchase an Azure Active Directory Premium P2 license for contoso.com.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 50
Correct Answer: *A*
Instead use Azure AD Privileged Identity Management.
Note: PIM essentially helps you manage the who, what, when, where, and why for resources that you care about. Key features of PIM include:
☞ Conduct access reviews to ensure users still need roles
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure

Question #13*Topic 3*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Active Directory (Azure AD) tenant named contoso.com.
A user named Admin1 attempts to create an access review from the Azure Active Directory admin center and discovers that the Access reviews settings are unavailable. Admin1 discovers that all the other identity Governance settings are available.
Admin1 is assigned the User administrator, Compliance administrator, and Security administrator roles.
You need to ensure that Admin1 can create access reviews in contoso.com.
Solution: You assign the Global administrator role to Admin1.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution | Discussion 25

Correct Answer: *B*
Instead use Azure AD Privileged Identity Management.
Note: PIM essentially helps you manage the who, what, when, where, and why for resources that you care about. Key features of PIM include:
☞ Conduct access reviews to ensure users still need roles
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure

Question #14*Topic 3*
You have an Azure Container Registry and an Azure container instance.
You pull an image from the registry, and then update the local copy of the image.
You need to ensure that the updated image can be deployed to the container instance. The solution must ensure that you can deploy the updated image or the previous version of the image.
What should you do?

- A. Run the docker image push command and specify the tag parameter.
- B. Run the az image copy command and specify the tag parameter.
- C. Run the az aks update command and specify the attach-acr parameter.
- D. Run the kubectl apply command and specify the dry-run parameter.

Hide Solution | Discussion 4

Correct Answer: *A*
The command 'docker image push' pushes an image or a repository to a registry.
Incorrect Answers:

B: az image copy -
Copies a managed image (or vm) to other regions.
--tags

C: az aks update -
Updates a managed Kubernetes cluster.

D: Kubectl apply -
apply manages applications through files defining Kubernetes resources. It creates and updates resources in a cluster through running kubectl apply. This is the recommended way of managing Kubernetes applications on production.
Reference:
https://docs.docker.com/engine/reference/commandline/image_push/
https://docs.microsoft.com/en-us/cli/azure/ext/image-copy-extension/image
https://docs.microsoft.com/en-us/cli/azure/aks
https://kubernetes.io/docs/reference/kubectl/cheatsheet/#kubectl-apply

Question #15*Topic 3*
You have an application that is hosted across multiple Azure regions.
You need to ensure that users connect automatically to their nearest application host based on network latency.
What should you implement?

- A. Azure Application Gateway
- B. Azure Load Balancer
- C. Azure Traffic Manager
- D. Azure Bastion

Hide Solution Discussion 5
Correct Answer: *C*
Azure Traffic Manager is a DNS-based traffic load balancer. This service allows you to distribute traffic to your public facing applications across the global Azure regions. Traffic Manager also provides your public endpoints with high availability and quick responsiveness.
Incorrect Answers:
A: Azure Application Gateway is a web traffic load balancer that enables you to manage traffic to your web applications.
B: An Azure load balancer is a Layer-4 (TCP, UDP) load balancer that provides high availability by distributing incoming traffic among healthy VMs.
D: Azure Bastion is a fully managed PaaS service that provides secure and seamless RDP and SSH access to your virtual machines directly through the Azure
Portal.
Reference:
https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview

Question #16*Topic 3*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
Your company is deploying an on-premises application named App1. Users will access App1 by using a URL of https://app1.contoso.com.
You register App1 in Azure Active Directory (Azure AD) and publish App1 by using the Azure AD Application Proxy.
You need to ensure that App1 appears in the My Apps portal for all the users.
Solution: You create a conditional access policy for App1.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 4
Correct Answer: *B*
Instead you modify User and Groups for App1.
Reference:
https://cloud.google.com/architecture/identity/integrating-google-services-and-apps-with-azure-ad-portal#adding_links

Question #17*Topic 3*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
Your company is deploying an on-premises application named App1. Users will access App1 by using a URL of https://app1.contoso.com.
You register App1 in Azure Active Directory (Azure AD) and publish App1 by using the Azure AD Application Proxy.
You need to ensure that App1 appears in the My Apps portal for all the users.
Solution: You modify User and Groups for App1.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 4
Correct Answer: *A*
Assigning users and groups to individual applications in Azure AD controls the visibility of the link. If you want only a subset of your users to see the link in the Azure AD My Apps portal, configure user assignment as follows:
1. In the menu on the left, select Properties.

2. Set User assignment required to Yes.
3. Click Save.
4. In the menu on the left, click Manage > Users and groups.
5. Click Add user.
6. Select Users.
7. Select the users or groups that you want to provision. If you select a group, all members of the group are provisioned.
8. Click Select.
9. Click Assign.
10.It might take several minutes for a link to show up in the My Apps portal.
Reference:
https://cloud.google.com/architecture/identity/integrating-google-services-and-apps-with-azure-ad-portal#adding_links

Question #18*Topic 3*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
Your company is deploying an on-premises application named App1. Users will access App1 by using a URL of https://app1.contoso.com.
You register App1 in Azure Active Directory (Azure AD) and publish App1 by using the Azure AD Application Proxy.
You need to ensure that App1 appears in the My Apps portal for all the users.
Solution: You create an offer for App1 and publish the offer to Azure Marketplace.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 3
Correct Answer: *B*
Instead you modify User and Groups for App1.
Note: The Microsoft commercial marketplace is a catalog of solutions from our independent software vendor (ISV) partners. As an ISV member of the Microsoft
Partner Network, you can create, publish, and manage your commercial marketplace offers in Partner Center. Your solutions are listed in our online stores, alongside our own Microsoft solutions, connecting you with businesses, organizations, and government agencies around the world.
Reference:
https://cloud.google.com/architecture/identity/integrating-google-services-and-apps-with-azure-ad-portal#adding_links

Question #19*Topic 3*

Your network contains an on-premises Active Directory domain named contoso.com that contains a member server named Server1.
You have the accounts shown in the following table.

Name	Member of
CONTOSO\User1	Domain Admins
CONTOSO\User2	Domain Users
CONTOSO\User3	Enterprise Admin
SERVER1\User4	Users

You are installing Azure AD Connect on Server1.
You need to specify the account for Azure AD Connect synchronization. The solution must use the principle of least privilege.
Which account should you specify?

- A. CONTOSO\User2
- B. SERVER1\User4
- C. CONTOSO\User1
- D. CONTOSO\User3

Hide Solution Discussion 30
Correct Answer: *A*
The default Domain User permissions are sufficient
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/reference-connect-accounts-permissions

Question #20*Topic 3*
HOTSPOT -
A company runs multiple Windows virtual machines (VMs) in Azure.
The IT operations department wants to apply the same policies as they have for on-premises VMs to the VMs running in Azure, including domain administrator permissions and schema extensions.
You need to recommend a solution for the hybrid scenario that minimizes the amount of maintenance required.
What should you recommend? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Component	Action
Domain	Join the VMs to the existing on-premises domain. Join the VMs to a new domain controller VM in Azure. Join the VMs to Azure Active Directory Domain Services (AD DS).
Connectivity	Set up VPN connectivity. Set up HTTPS connectivity. Set up Azure Relay Service.

Hide Solution | Discussion 24

Correct Answer:

Answer Area

Component	Action
Domain	Join the VMs to the existing on-premises domain. **Join the VMs to a new domain controller VM in Azure.** Join the VMs to Azure Active Directory Domain Services (AD DS).
Connectivity	**Set up VPN connectivity.** Set up HTTPS connectivity. Set up Azure Relay Service.

Box 1: Join the VMs to a new domain controller VM in Azure

Azure provides two solutions for implementing directory and identity services in Azure:

(Used in this scenario) Extend your existing on-premises Active Directory infrastructure to Azure, by deploying a VM in Azure that runs AD DS as a Domain

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Controller. This architecture is more common when the on-premises network and the Azure virtual network (VNet) are connected by a VPN or ExpressRoute connection.

☞ Use Azure AD to create an Active Directory domain in the cloud and connect it to your on-premises Active Directory domain. Azure AD Connect integrates your on-premises directories with Azure AD.

Box 2: Set up VPN connectivity.

This architecture is more common when the on-premises network and the Azure virtual network (VNet) are connected by a VPN or ExpressRoute connection.

Reference:

https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/identity/

Question #21*Topic 3*
You have an Azure subscription that contains the web apps shown in the following table.

Name	Runtime stack
WebApp1	Java SE
WebApp2	Ruby 2.6
WebApp3	Python 3.7
WebApp4	ASP.NET V4.7

For which web app can you configure a WebJob?

- A. WebApp1
- B. WebApp4
- C. WebApp2
- D. WebApp3

Hide Solution | Discussion 12

Correct Answer: *B*
Publishing a .NET Core WebJob to App Service from Visual Studio uses the same tooling as publishing an ASP.NET Core app.
Reference:
https://docs.microsoft.com/en-us/azure/app-service/webjobs-dotnet-deploy-vs

Question #22*Topic 3*
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a server named Server1 that runs Windows Server 2019. Server1 is a container host.
You are creating a Dockerfile to build a container image.
You need to add a file named File1.txt from Server1 to a folder named C:\Folder1 in the container image.
Solution: You add the following line to the Dockerfile.
COPY File1.txt /Folder1/
You then build the container image.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution | Discussion 14

Correct Answer: *A*

Copy is the correct command to copy a file to the container image.

Reference:

https://docs.docker.com/develop/develop-images/dockerfile_best-practices/#add-or-copy

https://docs.docker.com/engine/reference/builder/

Question #1 *Topic 4*

HOTSPOT -

You have the Azure SQL Database servers shown in the following table.

Name	Elastic pool
sqlserver1	Pool1
sqlserver2	Pool1, Pool2

You have the Azure SQL databases shown in the following table.

Name	Azure SQL Database server	Elastic pool
DB1	sqlserver1	*None*
DB2	sqlserver1	Pool1
DB3	sqlserver2	Pool1
DB4	sqlserver2	Pool2

You create a failover group named failover1 that has the following settings:

- Primary server: sqlserver1
- Secondary server: sqlserver2
- Read/Write failover policy: Automatic
- Read/Write grace period (hours): 1 hour

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
You can add DB1 to failover1.	○	○
You can add DB3 to failover1.	○	○
Sqlserver1 and sqlserver2 are in the same Azure region.	○	○

Hide Solution | Discussion 11

Correct
Answer:

Answer Area

Statements	Yes	No
You can add DB1 to failover1.	○	○
You can add DB3 to failover1.	○	○
Sqlserver1 and sqlserver2 are in the same Azure region.	○	○

Box 1: Yes -

DB1 is on the primary server -

Box 2: No -
DB3 is on the secondary server.
You can put all or several databases within an elastic pool into the same failover group.

Box 3: No -
A failover group is a named group of databases managed by a single server or within a managed instance that can fail over as a unit to another region in case all or some primary databases become unavailable due to an outage in the primary region.
The secondary cannot be in the same region as the primary.
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-overview

Question #2*Topic 4*

Your company plans to develop an application that will use a NoSQL database. The database will be used to store transactions and customer information by using
JSON documents.
Which two Azure Cosmos DB APIs can developers use for the application? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. Gremlin (graph)
- B. MongoDB
- C. Cassandra
- D. Core (SQL)
- E. Azure Table

Hide Solution Discussion 45

Correct Answer: ***AD***

D: The SQL API supports cross-document transactions expressed as JavaScript-stored procedures and triggers. Transactions are scoped to a single partition within each container and executed with ACID semantics as "all or nothing," isolated from other concurrently executing code and user requests. If exceptions are thrown through the server-side execution of JavaScript application code, the entire transaction is rolled back.

A: Azure Cosmos DB is Microsoft's globally distributed, multi-model database service. Where multi-model means Azure Cosmos DB supports multiple APIs and multiple data models, different APIs use different data formats for storage and wire protocol. For example, SQL uses JSON, MongoDB uses BSON, Table uses EDM, Cassandra uses CQL, Gremlin uses JSON format. As a result, we recommend using the same API for all access to the data in a given account.

Each API operates independently, except the Gremlin and SQL API, which are interoperable.

Reference:

https://docs.microsoft.com/en-us/azure/cosmos-db/faq

Question #3*Topic 4*

The developers at your company request that you create databases in Azure Cosmos DB as shown in the following table.

Name	Requirement
CosmosDB1	• Provides a throughput of 1,200 RU/s • Has multiple write regions • Uses the Core (SQL) API
CosmosDB2	• Provides a throughput of 800 RU/s • Uses the MongoDB API
CosmosDB3	• Provides a throughput of 1,200 RU/s • Has only one write region • Uses the Core (SQL) API
CosmosDB4	• Provides a throughput of 2,000 RU/s • Uses the MongoDB API

You need to create the Azure Cosmos DB databases to meet the developer request. The solution must minimize costs.

What are two possible ways to achieve the goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Create three Azure Cosmos DB accounts, one for the databases that use the Core (SQL) API, one for CosmosDB2, and one for CosmosDB4.
- B. Create two Azure Cosmos DB accounts, one for CosmosDB2 and CosmosDB4 and one for CosmosDB1 and CosmosDB3.
- C. Create one Azure Cosmos DB account for each database.
- D. Create three Azure Cosmos DB accounts, one for the databases that use the MongoDB API, one for CosmosDB1, and one for CosmosDB3.

Hide Solution | Discussion 25

Correct Answer: ***BD***
Note:
Microsoft recommends using the same API for all access to the data in a given account.
One throughput provisioned container per subscription for SQL, Gremlin API, and Table accounts.
Up to three throughput provisioned collections per subscription for MongoDB accounts.
The throughput provisioned on an Azure Cosmos container is exclusively reserved for that container. The container receives the provisioned throughput all the time.
Incorrect Answers:
A: DB2 and DB4 can use the same account.
C: The most costly alternative.
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/set-throughput#set-throughput-on-a-container
Question #4*Topic 4*

You have the Azure SQL Database servers shown in the following table.

Name	Resource group	Location
sqlserver1	RG1	West US
sqlserver2	RG1	West US
sqlserver3	RG2	West US
sqlserver4	RG1	West Europe
sqlserver5	RG2	West Europe

You plan to specify sqlserver1 as the primary server in a failover group.
Which servers can be used as a secondary server?

- A. sqlserver4 and sqlserver5 only
- B. sqlserver2 and sqlserver3 only
- C. sqlserver2, sqlserver3, sqlserver4, and sqlserver5
- D. sqlserver2 and sqlserver4 only

Hide Solution Discussion 30

Correct Answer: ***D***
The Resource Group must be the same.
The secondary server can have another location.
The secondary server cannot be the same as the primary server.
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-configure

Question #5*Topic 4*

You have two Azure SQL Database managed instances in different Azure regions.
You plan to configure the managed instances in an instance failover group.
What should you configure before you can add the managed instances to the instance failover group?

- A. an internal Azure Load Balancer instance that has managed instance endpoints in a backend pool
- B. Azure Private Link that has endpoints on two virtual networks
- C. an Azure Application Gateway that has managed instance endpoints in a backend pool
- D. a Site-to-Site VPN between the virtual networks that contain the instances

Hide Solution Discussion 36

Correct Answer: ***D***
For two managed instances to participate in a failover group, there must be either ExpressRoute or a gateway configured between the virtual networks of the two managed instances to allow network communication.
You create the two VPN gateways and connect them.
1. Create the gateway for the virtual network of your primary managed instance using the Azure portal.
2. Create the gateway for the virtual network of your secondary managed instance using the Azure portal.
3. Create a bidirectional connection between the two gateways of the two virtual networks.
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/failover-group-add-instance-tutorial?tabs=azure-portal#4---create-a-primary-gateway

Question #1*Topic 5*

HOTSPOT -
You have an Azure subscription named Subscription1. Subscription1 contains the resources in the following table:

Name	Type
RG1	Resource group
RG2	Resource group
VNet1	Virtual network
VNet2	Virtual network

VNet1 is in RG1. VNet2 is in RG2. There is no connectivity between VNet1 and VNet2. An administrator named Admin1 creates an Azure virtual machine VM1 in
RG1. VM1 uses a disk named Disk1 and connects to VNet1. Admin1 then installs a custom application in VM1.
You need to move the custom application to VNet2. The solution must minimize administrative effort.
Which two actions should you perform? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

First action: [∨]
- Create a network interface in RG2.
- Detach a network interface.
- Delete VM1.
- Move a network interface to RG2.

Second action: [∨]
- Attach a network interface.
- Create a network interface in RG2.
- Create a new virtual machine.
- Move VM1 to RG2.

Hide Solution | Discussion 7

Answer Area

First action:

- Create a network interface in RG2.
- Detach a network interface.
- **Delete VM1.**
- Move a network interface to RG2.

Second action:

- Attach a network interface.
- Create a network interface in RG2.
- **Create a new virtual machine.**
- Move VM1 to RG2.

Correct Answer:
We cannot just move a virtual machine between networks. What we need to do is identify the disk used by the VM, delete the VM itself while retaining the disk, and recreate the VM in the target virtual network and then attach the original disk to it.
Reference:
https://blogs.technet.microsoft.com/canitpro/2014/06/16/step-by-step-move-a-vm-to-a-different-vnet-on-azure/ https://4sysops.com/archives/move-an-azure-vm-to-another-virtual-network-vnet/#migrate-an-azure-vm-between-vnets

Question #2*Topic 5*

You have an Azure subscription named Subscription1 that is used by several departments at your company.
Subscription1 contains the resources in the following table.

Name	Type
Storage1	Storage account
RG1	Resource group
Container1	Blob container
Share1	File share

Another administrator deploys a virtual machine named VM1 and an Azure Storage account named Storage2 by using a single Azure Resource Manager template.
You need to view the template used for the deployment.
From the Azure Portal, for which blade can you view the template that was used for the deployment?

- A. Container1
- B. VM1
- C. Storage2
- D. RG1

Hide Solution Discussion 4

Correct Answer: ***D***
You can verify the deployment by exploring the resource group from the Azure portal
Reference:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/deployment-manager-tutorial
https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-create-first-template?tabs=azure-powershell

Question #3*Topic 5*

You have two subscriptions named Subscription1 and Subscription2. Each subscription is associated to a different Azure AD tenant.
Subscription1 contains a virtual network named VNet1. VNet1 contains an Azure virtual machine named VM1 and has an IP address space of 10.0.0.0/16.
Subscription2 contains a virtual network named VNet2. Vnet2 contains an Azure virtual machine named VM2 and has an IP address space of 10.10.0.0/24.
You need to connect VNet1 to VNet2.
What should you do first?

- A. Modify the IP address space of VNet2.
- B. Move VM1 to Subscription2.
- C. Provision virtual network gateways.
- D. Move VNet1 to Subscription2.

Hide Solution Discussion 24

Correct Answer: ***C***
We require a virtual network gateway for VNet-to-VNet connectivity.
Incorrect Answers:
A: There is no need to modify the address space. If you update the address space for one VNet, the other VNet automatically knows to route to the updated address space.
Reference:
https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-vnet-vnet-cli

Question #4*Topic 5*

You have an Azure Active Directory (Azure AD) tenant.
You have an existing Azure AD conditional access policy named Policy1. Policy1 enforces the use of Azure AD-joined devices when members of the Global
Administrators group authenticate to Azure AD from untrusted locations.
You need to ensure that members of the Global Administrators group will also be forced to use multi-factor

authentication when authenticating from untrusted locations.
What should you do?

- A. From the Azure portal, modify session control of Policy1.
- B. From multi-factor authentication page, modify the user settings.
- C. From multi-factor authentication page, modify the service settings.
- D. From the Azure portal, modify grant control of Policy1.

Hide Solution Discussion 6

Correct Answer: ***D***
We need to modify the grant control of Policy1.
The grant control can trigger enforcement of one or more controls.
☞ Require multi-factor authentication (Azure Multi-Factor Authentication)
☞ Require device to be marked as compliant (Intune)
☞ Require Hybrid Azure AD joined device
☞ Require approved client app
☞ Require app protection policy
Note: It is now possible to explicitly apply the Require MFA for admins rule.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/untrusted-networks
https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/concept-baseline-protection
Question #5*Topic 5*

HOTSPOT -
You plan to deploy five virtual machines to a virtual network subnet.
Each virtual machine will have a public IP address and a private IP address.
Each virtual machine requires the same inbound and outbound security rules.
What is the minimum number of network interfaces and network security groups that you require? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

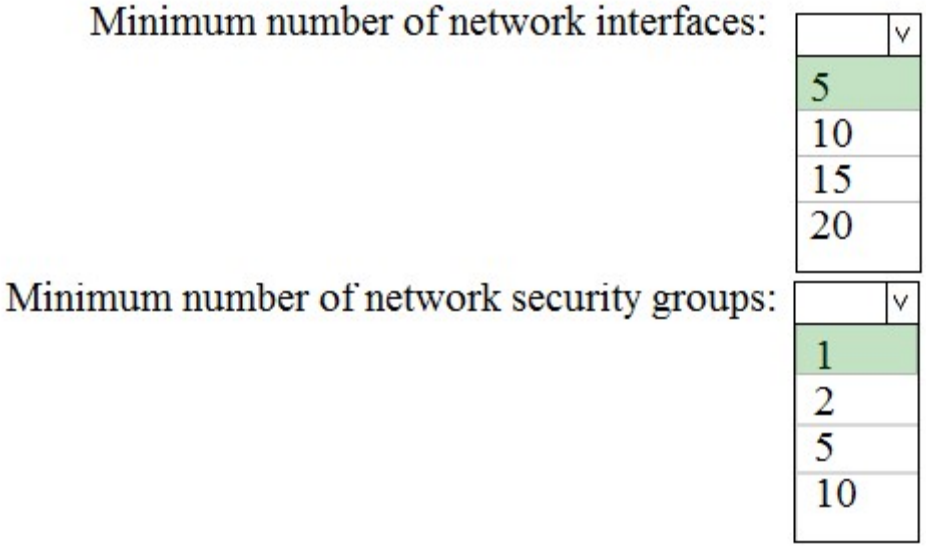
Minimum number of network interfaces: [ ]
- 5
- 10
- 15
- 20

Minimum number of network security groups: [ ]
- 1
- 2
- 5
- 10

Hide Solution | Discussion 9

Correct

Answer Area



Answer:
Box 1: 5 -
We have five virtual machines. Each virtual machine will have a public IP address and a private IP address. Each will require a network interface.

Box 2: 1 -
Each virtual machine requires the same inbound and outbound security rules. We can add tem to one group.
Reference:
https://blogs.msdn.microsoft.com/igorpag/2016/05/14/azure-network-security-groups-nsg-best-practices-and-lessons-learned/ https://docs.microsoft.com/en-us/azure/virtual-network/security-overview
Question #6*Topic 5*
You have an Azure subscription named Subscription1 that contains an Azure virtual machine named VM1. VM1 is in a resource group named RG1.
VM1 runs services that will be used to deploy resources to RG1.
You need to ensure that a service running on VM1 can manage the resources in RG1 by using the identity of VM1.
What should you do first?

- A. From the Azure portal, modify the Access control (IAM) settings of RG1.
- B. From the Azure portal, modify the Policies settings of RG1.
- C. From the Azure portal, modify the Access control (IAM) settings of VM1.
- D. From the Azure portal, modify the value of the Managed Service Identity option for VM1.

Hide Solution | Discussion 13

Correct Answer: *D*

Through a create process, Azure creates an identity in the Azure AD tenant that's trusted by the subscription in use. After the identity is created, the identity can be assigned to one or more Azure service instances.

Reference:

https://docs.microsoft.com/en-us/azure/app-service/overview-managed-identity

https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview

Question #7*Topic 5*

HOTSPOT -

You have an Azure subscription named Subscription1. Subscription1 contains the virtual networks in the following table:

Name	Address space	Subnet name	Subnet address range
VNet1	10.1.0.0/16	Subnet1	10.1.1.0/24
VNet2	10.10.0.0/16	Subnet2	10.10.1.0/24
VNet3	172.16.0.0/16	Subnet3	172.16.1.0/24

Subscription1 contains the virtual machines in the following table:

Name	Network	Subnet	IP address
VM1	VNet1	Subnet1	10.1.1.4
VM2	VNet2	Subnet2	10.10.1.4
VM3	VNet3	Subnet3	172.16.1.4

The firewalls on all the virtual machines are configured to allow all ICMP traffic.

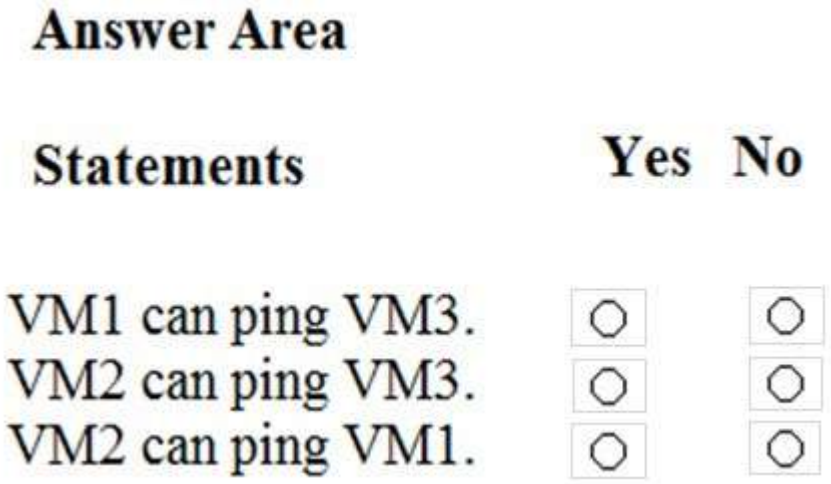
You add the peerings in the following table:

Virtual network	Peering network
VNet1	VNet3
VNet2	VNet3
VNet3	VNet1

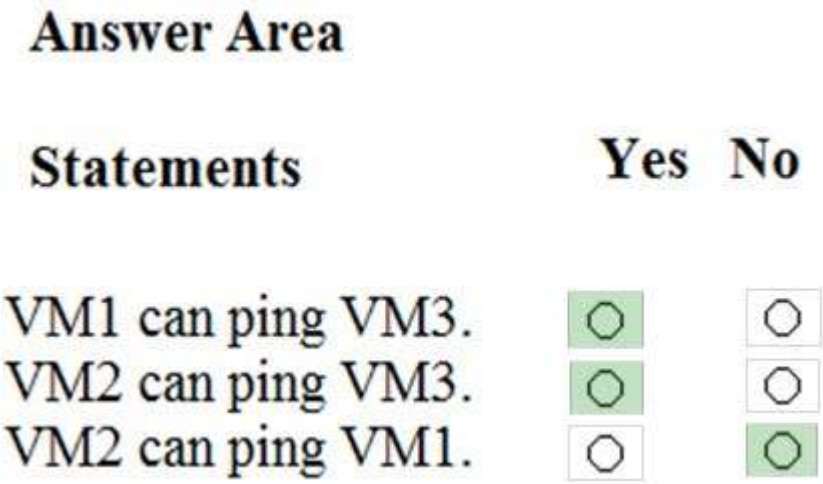
For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:



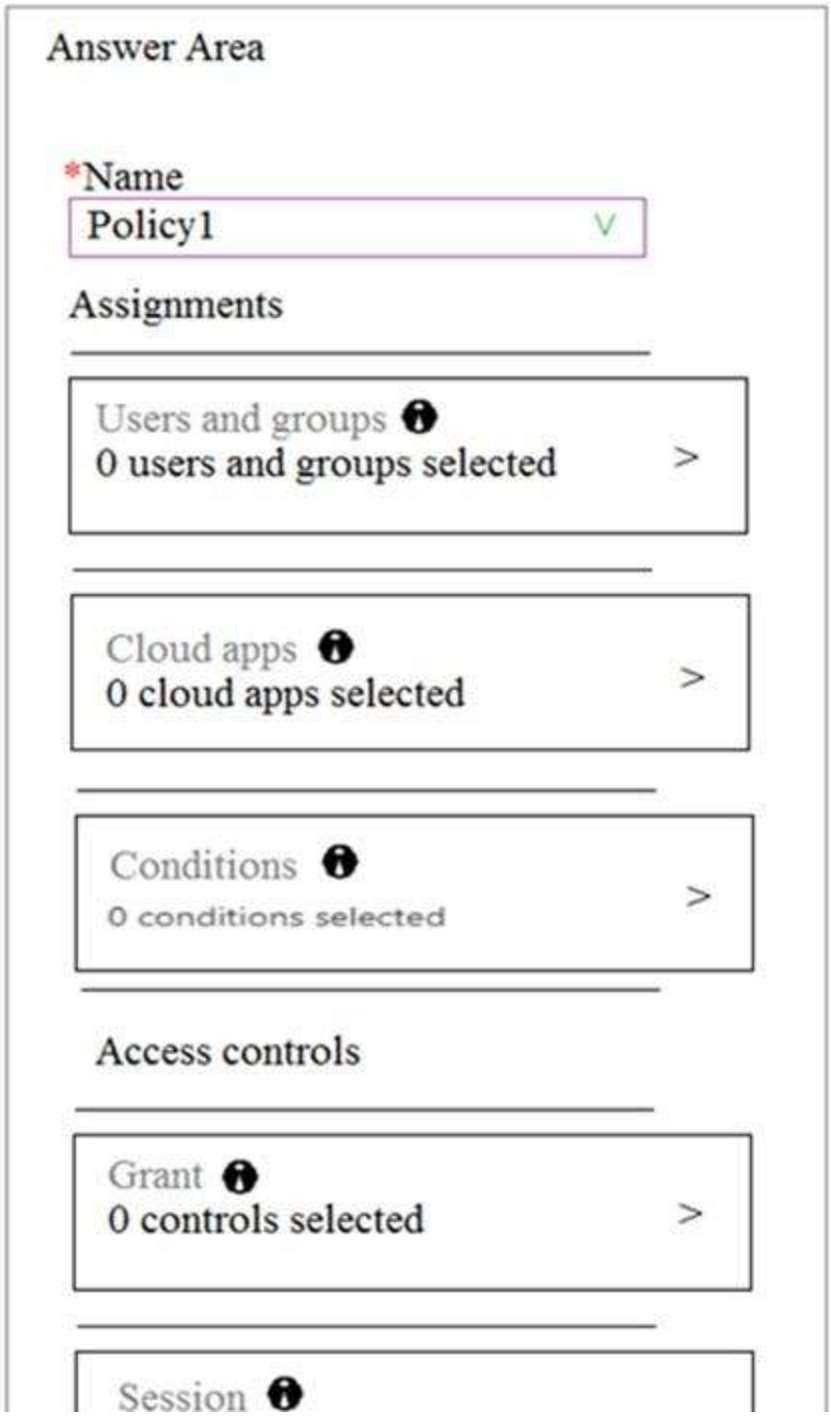
Hide Solution | Discussion 44



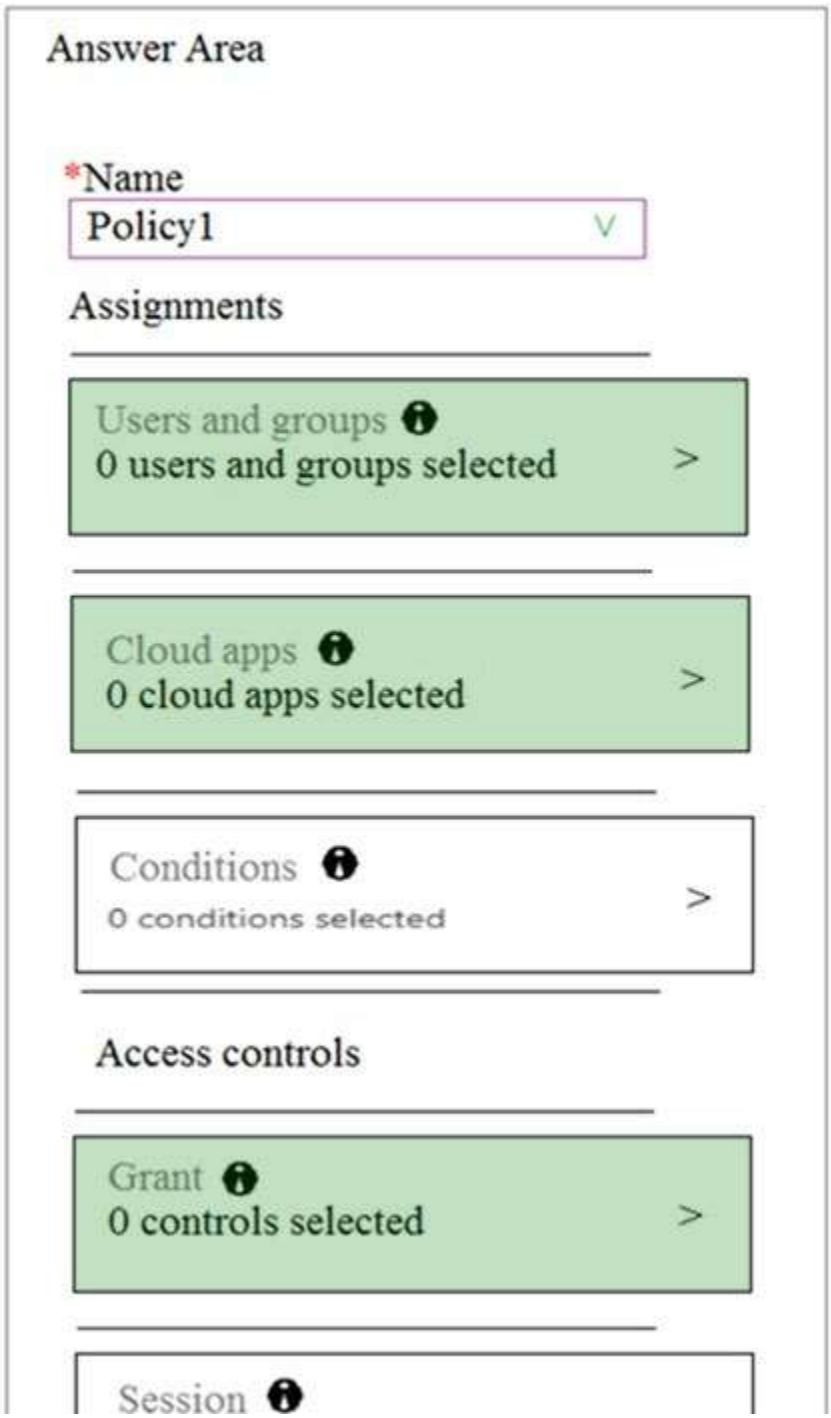
Correct Answer:
VM1 on VNet1 can ping VM3 on VNet3 as VNet1 and VNet3 are peered.
VM2 onVNet2 can ping VM3 on VNet3 as VNet2 and VNet3 are peered.
VM2 cannot ping VM1 as there is not peering between VNet2 and VNet1.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/tutorial-connect-virtual-networks-portal

Question #8*Topic 5*
HOTSPOT -
You have an Azure Active Directory (Azure AD) tenant.
You need to create a conditional access policy that requires all users to use multi-factor authentication when they access the Azure portal.
Which three settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.
Hot Area:



Hide Solution Discussion 4



Correct Answer:
References:
https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/app-based-mfa

Question #9*Topic 5*
You configure Azure AD Connect for Azure Active Directory Seamless Single Sign-On (Azure AD Seamless SSO) for an on-premises network.
Users report that when they attempt to access myapps.microsoft.com, they are prompted multiple times to sign in and are forced to use an account name that ends with onmicrosoft.com.

You discover that there is a UPN mismatch between Azure AD and the on-premises Active Directory.
You need to ensure that the users can use single-sign on (SSO) to access Azure resources.
What should you do first?

- A. From on-premises network, deploy Active Directory Federation Services (AD FS).
- B. From Azure AD, add and verify a custom domain name.
- C. From on-premises network, request a new certificate that contains the Active Directory domain name.
- D. From the server that runs Azure AD Connect, modify the filtering options.

Hide Solution Discussion 4

Correct Answer: *B*
The UPN is used by Azure AD to allow users to sign-in. The UPN that a user can use, depends on whether or not the domain has been verified. If the domain has been verified, then a user with that suffix will be allowed to sign-in to Azure AD.
To do so, you need to add and verify a custom domain in Azure AD before you can start syncing the users.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/plan-connect-design-concepts#azure-ad-sign-in https://docs.microsoft.com/en-us/azure/active-directory/hybrid/tshoot-connect-objectsync#detect-upn-mismatch-if-object-is-synced-to-azure-active-directory

Question #10*Topic 5*
You have an Active Directory forest named contoso.com.
You install and configure Azure AD Connect to use password hash synchronization as the single sign-on(SSO) method. Staging mode is enabled.
You review the synchronization results and discover that the Synchronization Service Manager does not display any sync jobs.
You need to ensure that the synchronization completes successfully.
What should you do?

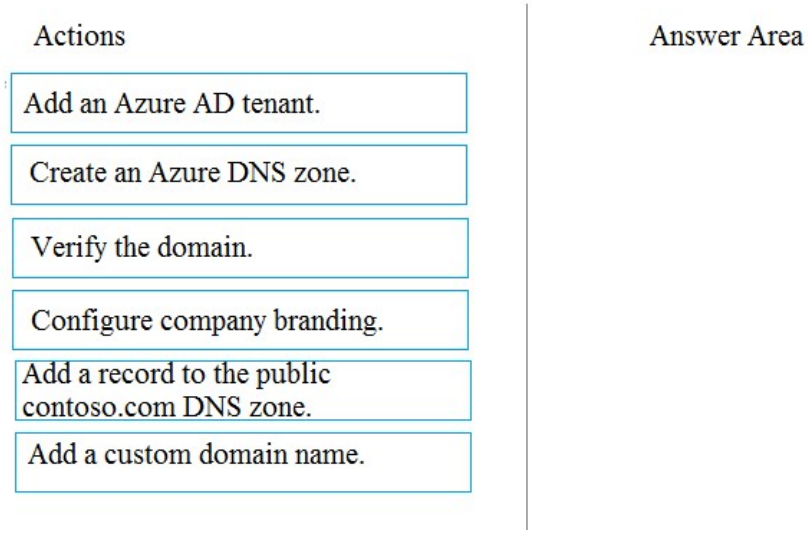
- A. From Azure PowerShell, run Start-AdSyncSyncCycle â€"PolicyType Initial.
- B. Run Azure AD Connect and set the SSO method to Pass-through Authentication.
- C. From Synchronization Service Manager, run a full import.
- D. Run Azure AD Connect and disable staging mode.

Hide Solution Discussion 4

Correct Answer: *D*
In staging mode, the server is active for import and synchronization, but it does not run any exports. A server in staging mode is not running password sync or password writeback, even if you selected these features during installation. When you disable staging mode, the server starts

exporting, enables password sync, and enables password writeback.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sync-staging-server https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sync-operations

Question #11*Topic 5*
DRAG DROP -
You have an Azure Active Directory (Azure AD) tenant that has the initial domain name.
You have a domain name of contoso.com registered at a third-party registrar.
You need to ensure that you can create Azure AD users that have names containing a suffix of @contoso.com.
Which three actions should you perform in sequence? To answer, move the appropriate cmdlets from the list of cmdlets to the answer area and arrange them in the correct order.
Select and Place:



Hide Solution Discussion 5
Correct Answer:

Actions	Answer Area
Add an Azure AD tenant.	Add a custom domain name.
Create an Azure DNS zone.	Add a record to the public contoso.com DNS zone.
Verify the domain.	Verify the domain.
Configure company branding.	
Add a record to the public contoso.com DNS zone.	
Add a custom domain name.	

1. Add your custom domain name to Azure AD.
2. Add your DNS information to the domain registrar.
3. Verify your custom domain name.

Reference:
https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/add-custom-domain

Question #12*Topic 5*
You have an Azure subscription that contains 100 virtual machines.
You regularly create and delete virtual machines.
You need to identify unattached disks that can be deleted.
What should you do?

- A. From Microsoft Azure Storage Explorer, view the Account Management properties.
- B. From Azure Cost Management, create a Cost Management report.
- C. From the Azure portal, configure the Advisor recommendations.
- D. From Azure Cost Management, open the Optimizer tab and create a report.

Hide Solution Discussion 25

Correct Answer: *D*
You can find unused disks in the Azure Storage Explorer console. Once you drill down to the Blob containers under a storage account, you can see the lease state of the residing VHD (the lease state determines if the VHD is being used by any resource) and the VM to which it is leased out. If you find that the lease state and the VM fields are blank, it means that the VHD in question is unused.
Note: The ManagedBy property stores the Id of the VM to which Managed Disk is attached to. If the ManagedBy property is $null then it means that the Managed

Disk is not attached to a VM -
Reference:
https://cloud.netapp.com/blog/reduce-azure-storage-costs

Question #13*Topic 5*
You have an Azure subscription that contains 10 virtual machines.
You need to ensure that you receive an email message when any virtual machines are powered off, restarted, or deallocated.
What is the minimum number of rules and action groups that you require?

- A. three rules and three action groups
- B. one rule and one action group
- C. three rules and one action group
- D. one rule and three action groups

Hide Solution Discussion 14
Correct Answer: *C*
We need a separate rule for each condition. We also need a separate action group for each action type that we want to fire when the rule is met.
In this scenario we have three conditions (when any virtual machines are powered off, restarted, or deallocated) and one action type (you are sent an email message).
References:
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-action-rules
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-metric-overview
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/action-groups

Question #14*Topic 5*
You plan to automate the deployment of a virtual machine scale set that uses the Windows Server 2016 Datacenter image.
You need to ensure that when the scale set virtual machines are provisioned, they have web server components installed.
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Upload a configuration script.
- B. Create an automation account.
- C. Create a new virtual machine scale set in the Azure portal.
- D. Create an Azure policy.
- E. Modify the extensionProfile section of the Azure Resource Manager template.

Hide Solution Discussion 21
Correct Answer: *CE*
References:
https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/tutorial-install-apps-template

Question #15*Topic 5*

You have an Azure subscription.
You have 100 Azure virtual machines.
You need to quickly identify underutilized virtual machines that can have their service tier changed to a less expensive offering.
Which blade should you use?

- A. Customer insights
- B. Monitor
- C. Advisor
- D. Metrics

Hide Solution Discussion 4

Correct Answer: *C*
Advisor helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. You can get cost recommendations from the Cost tab on the Advisor dashboard.
Reference:
https://docs.microsoft.com/en-us/azure/advisor/advisor-cost-recommendations

Question #16*Topic 5*
An app uses a virtual network with two subnets. One subnet is used for the application server. The other subnet is used for a database server. A network virtual appliance (NVA) is used as a firewall. Traffic destined for one specific address prefix is routed to the NVA and then to an on-premises database server that stores sensitive data. A Border Gateway
Protocol (BGP) route is used for the traffic to the on-premises database server.
You need to recommend a method for creating the user-defined route.
Which two options should you recommend? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. For the virtual network configuration, use a VPN.
- B. For the next hop type, use a virtual network peering.
- C. For the virtual network configuration, use Azure ExpressRoute.
- D. For the next hop type, use a virtual network gateway.

Hide Solution Discussion 26

Correct Answer: *AD*
You can create custom, or user-defined, routes in Azure to override Azure's default system routes, or to add additional routes to a subnet's route table. You can specify the following next hop types when creating a user-defined route:
☞ Virtual appliance: A virtual appliance is a virtual machine that typically runs a network application, such as a firewall.
☞ Virtual network gateway: Specify when you want traffic destined for specific address prefixes routed to a virtual network gateway. The virtual network gateway must be created with type VPN.

You cannot specify a virtual network gateway created as type ExpressRoute in a user-defined route because with
ExpressRoute, you must use BGP for custom routes.
☞ None: Specify when you want to drop traffic to an address prefix, rather than forwarding the traffic to a destination.
☞ Virtual network: Specify when you want to override the default routing within a virtual network.
☞ Internet: Specify when you want to explicitly route traffic destined to an address prefix to the Internet, or if you want traffic destined for Azure services with public IP addresses kept within the Azure backbone network.
Incorrect Answers:
B: You cannot specify VNet peering or VirtualNetworkServiceEndpoint as the next hop type in user-defined routes. Routes with the VNet peering or VirtualNetworkServiceEndpoint next hop types are only created by Azure, when you configure a virtual network peering, or a service endpoint.
C: You cannot specify a virtual network gateway created as type ExpressRoute in a user-defined route because with ExpressRoute, you must use BGP for custom routes.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview

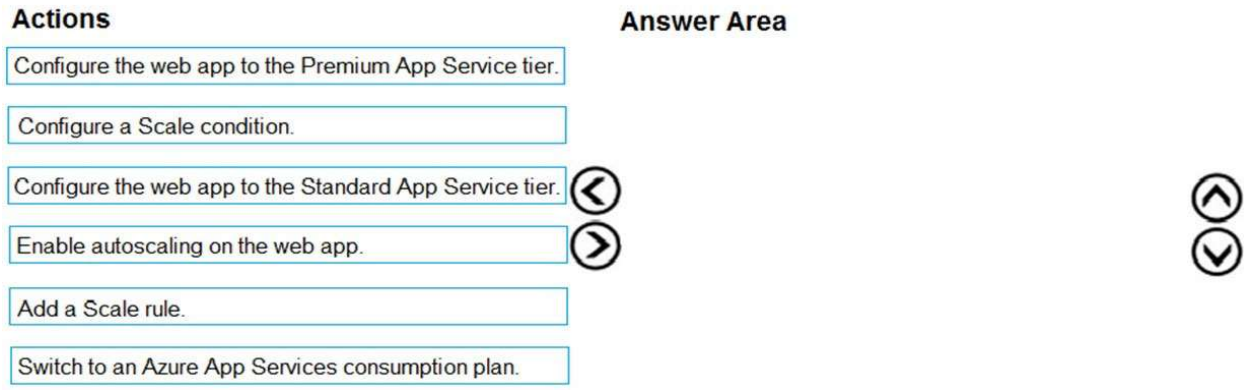
Question #17*Topic 5*
You manage a solution in Azure that consists of a single application which runs on a virtual machine (VM). Traffic to the application has increased dramatically.
The application must not experience any downtime and scaling must be dynamically defined.
You need to define an auto-scale strategy to ensure that the VM can handle the workload.
Which three options should you recommend? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. Deploy application automatic vertical scaling.
- B. Create a VM availability set.
- C. Create a VM scale set.
- D. Deploy application automatic horizontal scaling.
- E. Deploy a custom auto-scale implementation.

Hide Solution Discussion 19
Correct Answer: *CDE*

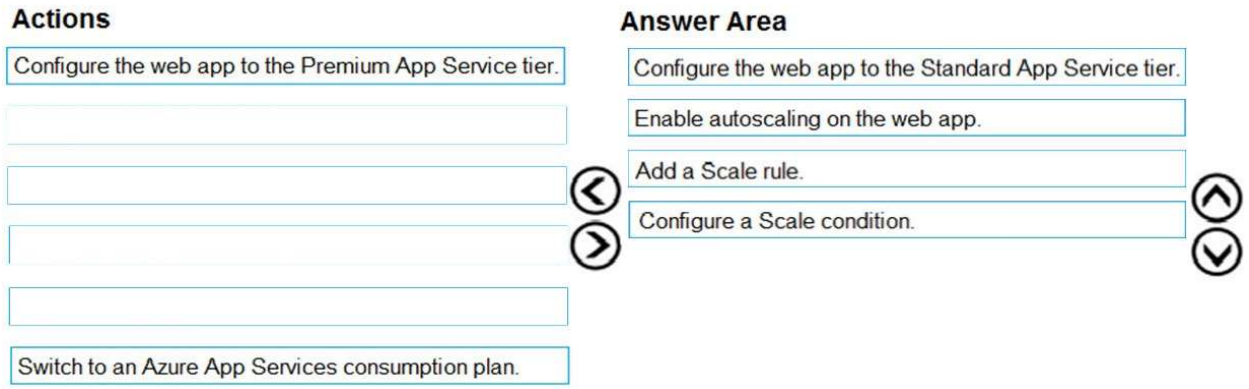
Question #18*Topic 5*
DRAG DROP -
You develop a web app that uses the tier D1 app service plan by using the Web Apps feature of Microsoft Azure App Service.
Spikes in traffic have caused increases in page load times.
You need to ensure that the web app automatically scales when CPU load is about 85 percent and minimize costs.
Which four actions should you perform in sequence? To answer, move the appropriate actions

from the list of actions to the answer area and arrange them in the correct order.
NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.
Select and Place:



Hide Solution Discussion 15

Correct Answer:



References:
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-get-started

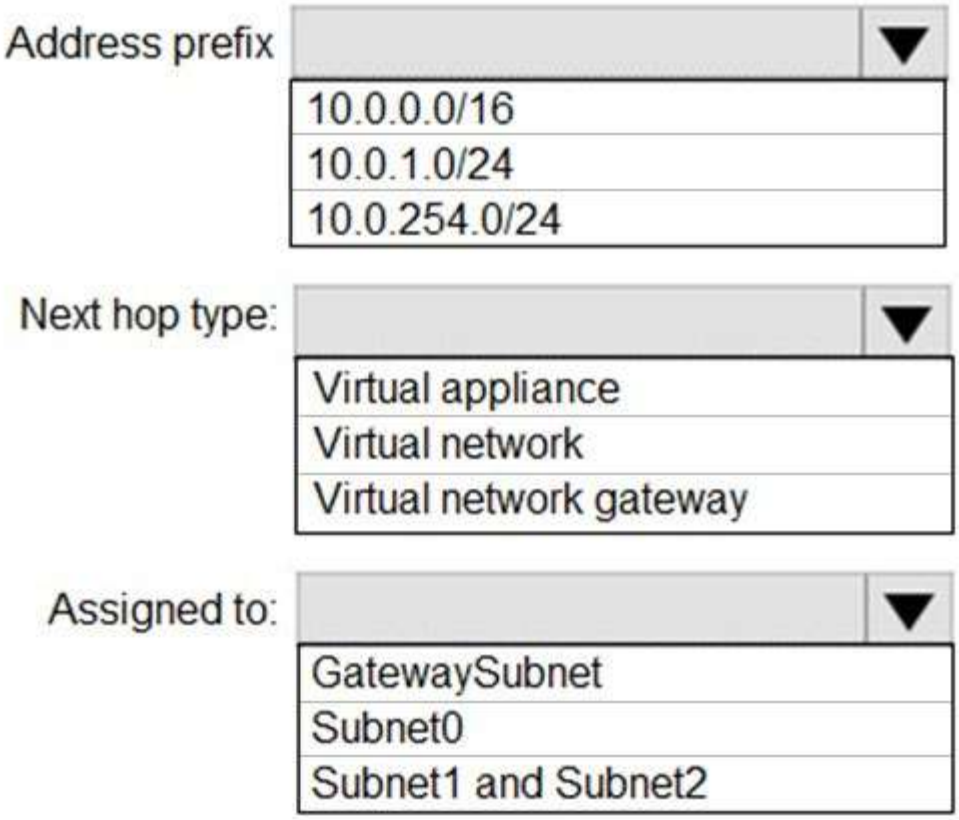
Question #19*Topic 5*
HOTSPOT -
You have Azure subscription that contains a virtual network named VNet1. VNet1 uses an IP address space of 10.0.0.0/16 and contains the subnets in the following table.

Name	IP address range
Subnet0	10.0.0.0/24
Subnet1	10.0.1.0/24
Subnet2	10.0.2.0/24
GatewaySubnet	10.0.254.0/24

Subnet1 contains a virtual appliance named VM1 that operates as a router.
You create a routing table named RT1.

You need to route all inbound traffic to VNet1 through VM1.
How should you configure RT1? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

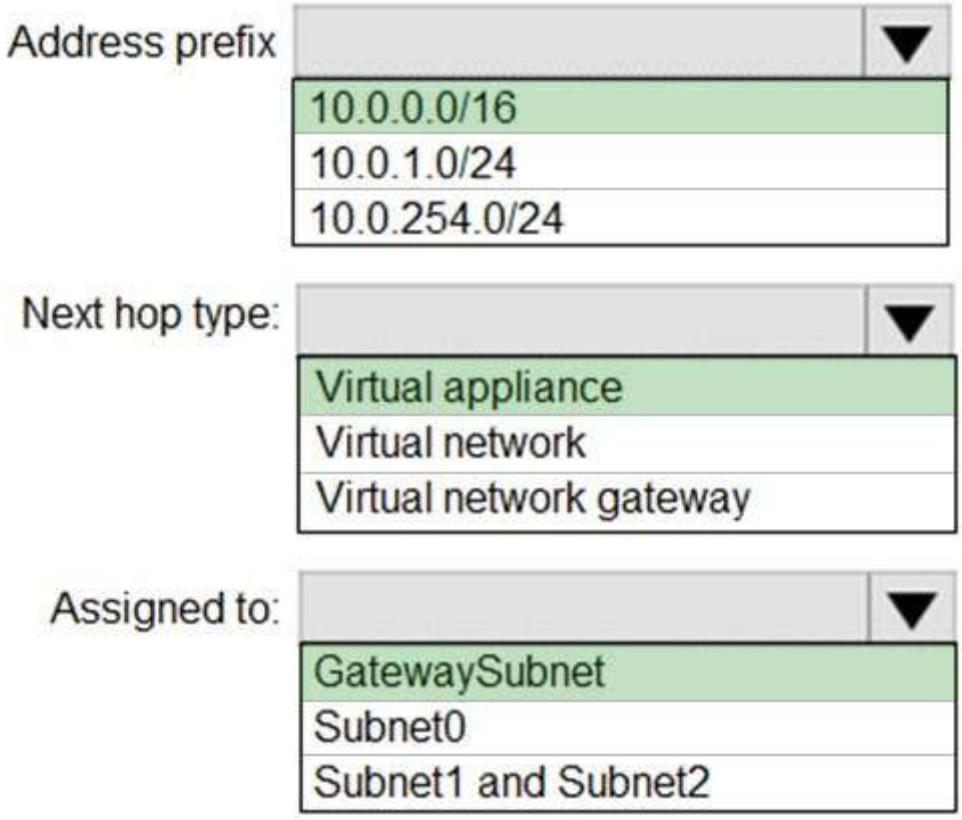
Answer Area



Hide Solution | Discussion 14

Correct

Answer Area



Answer:

Question #20*Topic 5*
You are implementing authentication for applications in your company. You plan to implement self-service password reset (SSPR) and multifactor authentication
(MFA) in Azure Active Directory (Azure AD).
You need to select authentication mechanisms that can be used for both MFA and SSPR.
Which two authentication methods should you use? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. Short Message Service (SMS) messages
- B. Authentication app
- C. Email addresses
- D. Security questions
- E. App passwords

Hide Solution Discussion 5

Correct Answer: *AB*

The following authentication mechanisms can be used for both MFA and SSPR:

- ☞ Short Message Service (SMS) messages
- ☞ Azure AD passwords
- ☞ Microsoft Authenticator app
- ☞ Voice call

Incorrect Answers:

C, D:

The following authentication mechanisms are used for SSPR only:

- ☞ Email addresses
- ☞ Security questions

E: App passwords authentication mechanisms can be used for MFA only, but only in certain cases.

Reference:

https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-authentication-methods

Question #21*Topic 5*

Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups.

Another administrator plans to create several network security groups (NSGs) in the subscription.

You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks.

Solution: You create a resource lock, and then you assign the lock to the subscription.

Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 6

Correct Answer: *B*

How can I freeze or lock my production/critical Azure resources from accidental deletion? There is way to do this with both ASM and ARM resources using Azure resource lock.

References:

https://blogs.msdn.microsoft.com/azureedu/2016/04/27/using-azure-resource-manager-policy-and-azure-lock-to-control-your-azure-resources/

Question #22*Topic 5*

Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.
You need to view the date and time when the resources were created in RG1.
Solution: From the RG1 blade, you click Automation script.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 5

Correct Answer: *B*
From the RG1 blade, click Deployments
Reference:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-create-first-template?tabs=azure-powershell

Question #23*Topic 5*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.
You need to view the date and time when the resources were created in RG1.
Solution: From the Subscription blade, you select the subscription, and then click Resource providers.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 3

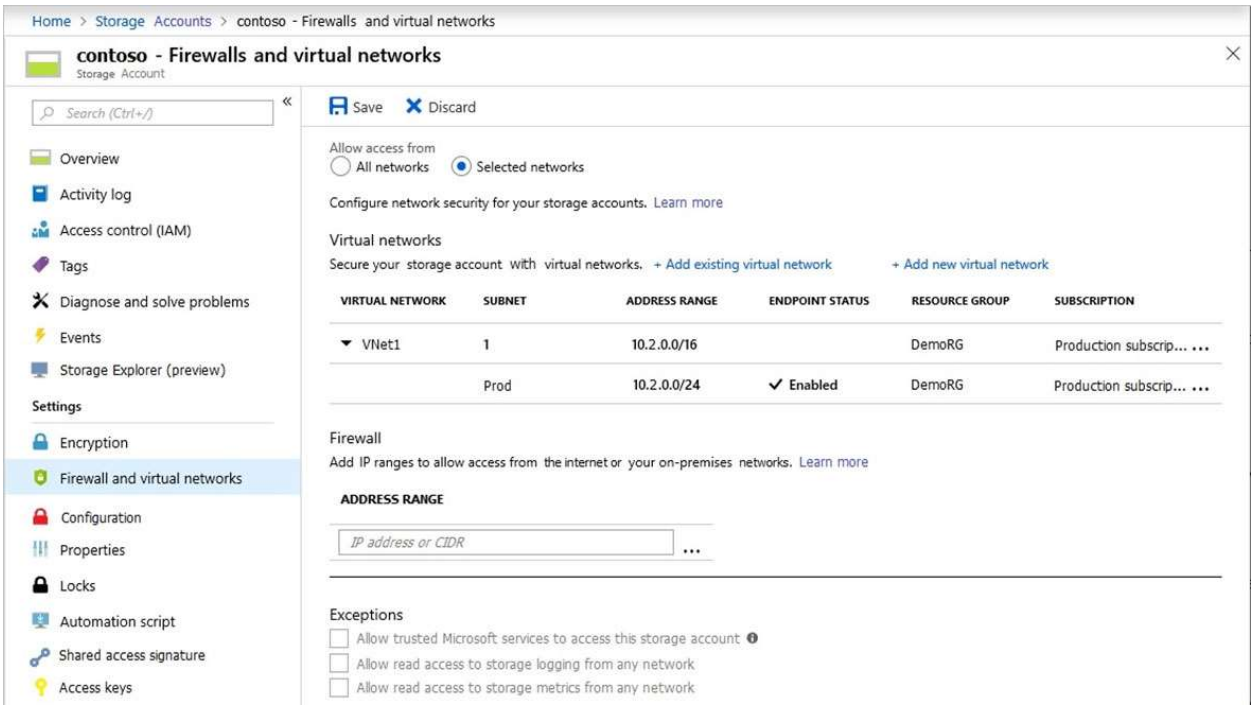
Correct Answer: *B*
From the RG1 blade, click Deployments
Reference:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-create-first-template?tabs=azure-powershell

Question #24*Topic 5*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.
You need to view the date and time when the resources were created in RG1.
Solution: From the RG1 blade, you click Deployments.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 3
Correct Answer: *A*
From the RG1 blade, click Deployments. You see a history of deployment for the resource group.
Reference:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-create-first-template?tabs=azure-powershell

Question #25*Topic 5*
HOTSPOT -
You have several Azure virtual machines on a virtual network named VNet1. VNet1 has two subnets that have 10.2.0.0/24 and 10.2.9.0/24 address spaces.
You configure an Azure Storage account as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

The virtual machines on the 10.2.9.0/24 subnet will have network connectivity to the file shares in the storage account [**answer choice**].

- always
- during a backup
- never

Azure Backup will be able to back up the unmanaged hard disks of the virtual machines in the storage account [**answer choice**].

- always
- during a backup
- never

Hide Solution | Discussion 16

Correct Answer:

Answer Area

The virtual machines on the 10.2.9.0/24 subnet will have network connectivity to the file shares in the storage account **[answer choice]**.

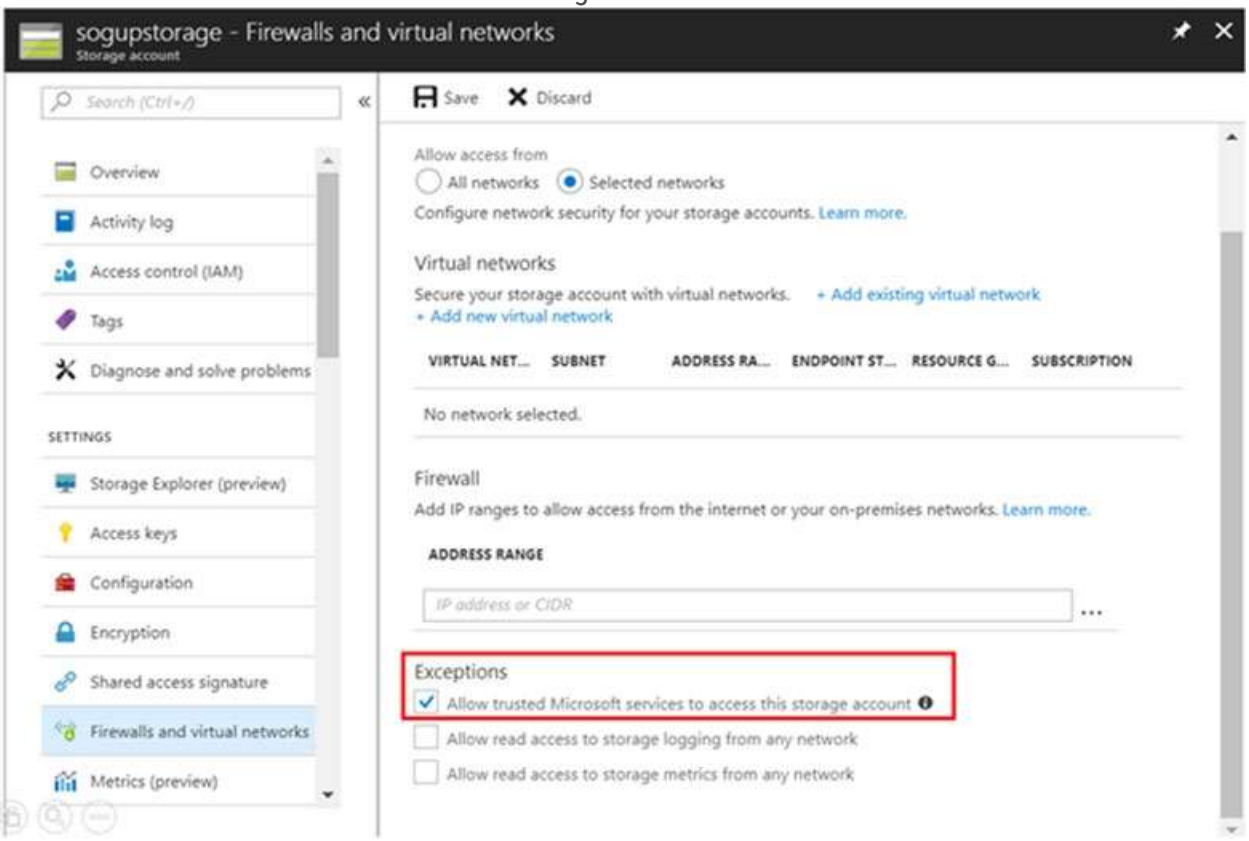
- always
- during a backup
- never

Azure Backup will be able to back up the unmanaged hard disks of the virtual machines in the storage account **[answer choice]**.

- always
- during a backup
- never

Box 1: always -
Endpoint status is enabled.

Box 2: Never -
After you configure firewall and virtual network settings for your storage account, select Allow trusted Microsoft services to access this storage account as an exception to enable Azure Backup service to access the network restricted storage account.

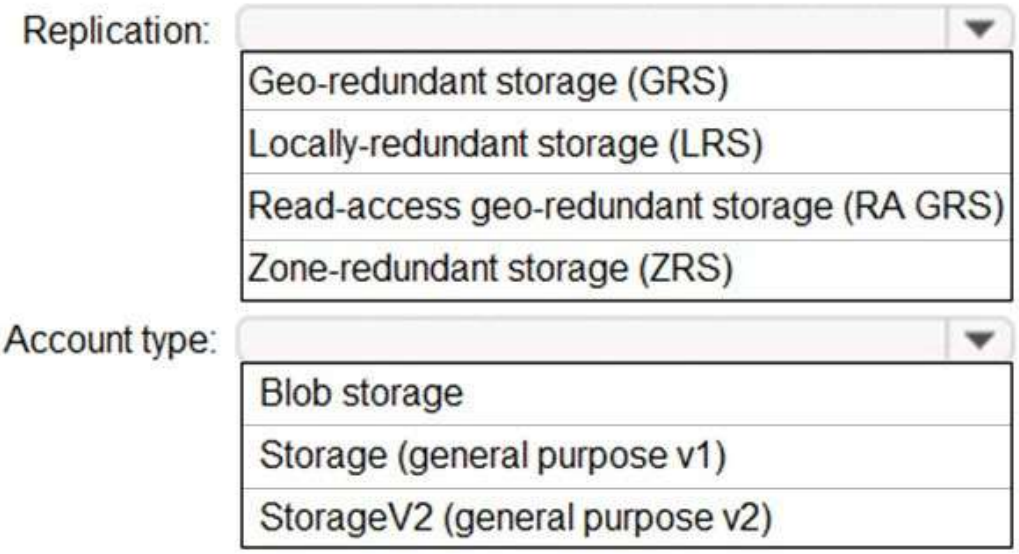


Reference:
https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows

https://azure.microsoft.com/en-us/blog/azure-backup-now-supports-storage-accounts-secured-with-azure-storage-firewalls-and-virtual-networks/

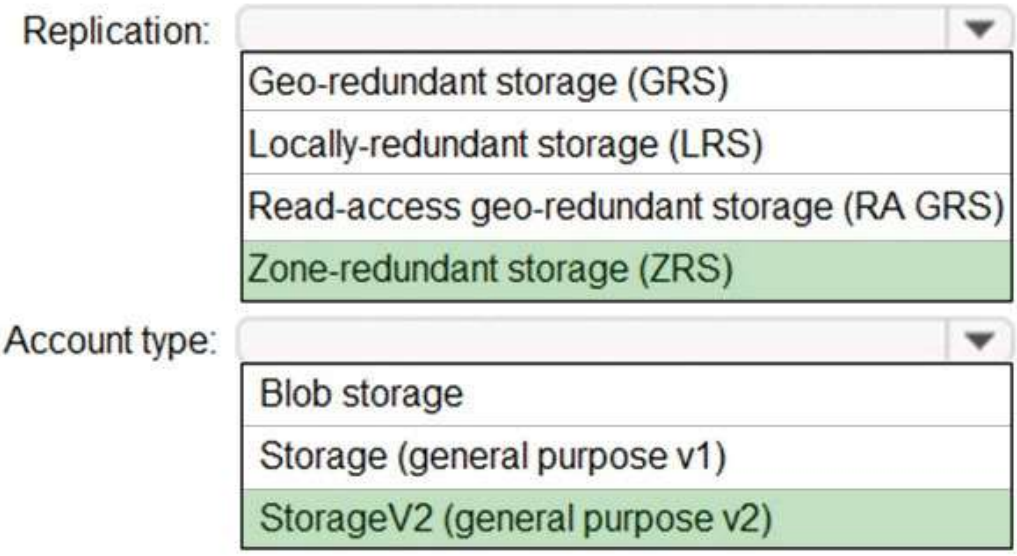
Question #26*Topic 5*
HOTSPOT -
You plan to create an Azure Storage account in the Azure region of East US 2.
You need to create a storage account that meets the following requirements:
- Replicates synchronously
- Remains available if a single data center in the region fails
How should you configure the storage account? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area



Hide Solution Discussion 9
Correct Answer:

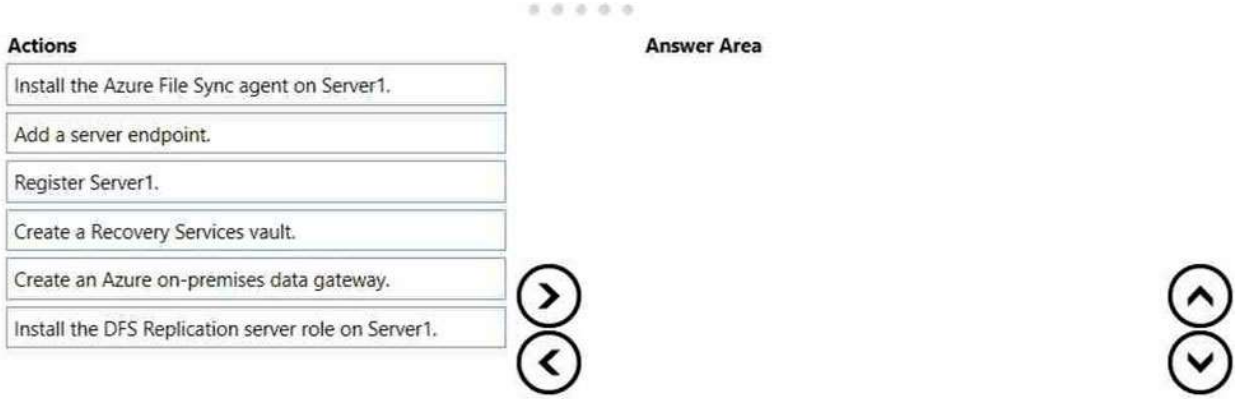
Answer Area



Box 1: Zone-redundant storage (ZRS)
Zone-redundant storage (ZRS) replicates your data synchronously across three storage clusters in a single region.
LRS would not remain available if a data center in the region fails
GRS and RA GRS use asynchronous replication.
Box 2: StorageV2 (general purpose V2)
ZRS only support GPv2.
References:
https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy
https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy-zrs

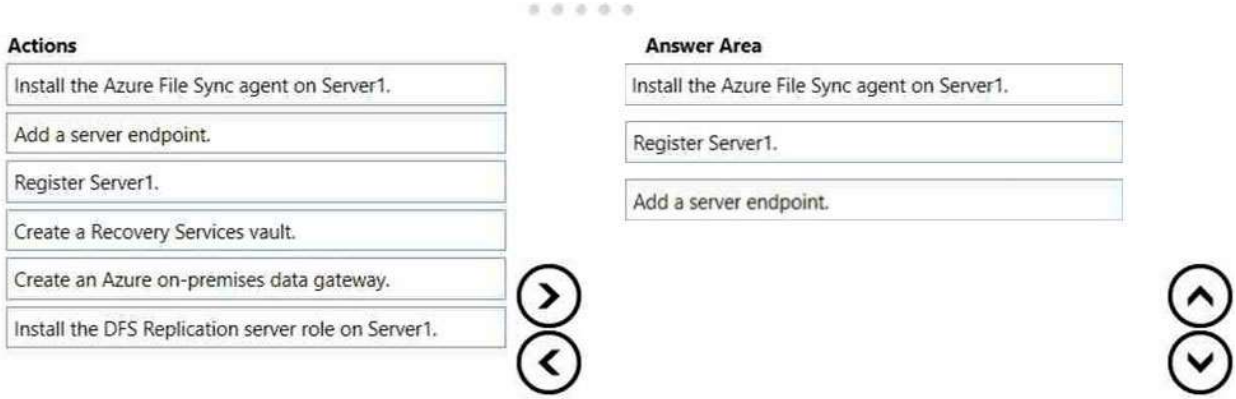
Question #27*Topic 5*
DRAG DROP -
You have an on-premises file server named Server1 that runs Windows Server 2016.
You have an Azure subscription that contains an Azure file share.
You deploy an Azure File Sync Storage Sync Service, and you create a sync group.
You need to synchronize files from Server1 to Azure.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:



Hide Solution Discussion 3

Correct Answer:



Step 1: Install the Azure File Sync agent on Server1
The Azure File Sync agent is a downloadable package that enables Windows Server to be synced with an Azure file share
Step 2: Register Server1.
Register Windows Server with Storage Sync Service
Registering your Windows Server with a Storage Sync Service establishes a trust relationship between your server (or cluster) and the Storage Sync Service.

Step 3: Add a server endpoint -
Create a sync group and a cloud endpoint.
A sync group defines the sync topology for a set of files. Endpoints within a sync group are kept in sync with each other. A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints. A server endpoint represents a path on registered server.
References:
https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide

Question #28*Topic 5*
You plan to use the Azure Import/Export service to copy files to a storage account.
Which two files should you create before you prepare the drives for the import job? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. a dataset CSV file
- B. an XML manifest file
- C. a driveset CSV file
- D. a PowerShell PS1 file
- E. a JSON configuration file

Hide Solution Discussion 5
Correct Answer: *AC*
A: Modify the dataset.csv file in the root folder where the tool resides. Depending on whether you want to import a file or folder or both, add entries in the dataset.csv file
C: Modify the driveset.csv file in the root folder where the tool resides.
References:
https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-data-to-files

Question #29*Topic 5*
You create an Azure Storage account named contosostorage.
You plan to create a file share named data.
Users need to map a drive to the data file share from home computers that run Windows 10.
Which outbound port should you open between the home computers and the data file share?

- A. 80
- B. 443
- C. 445
- D. 3389

Hide Solution Discussion 3
Correct Answer: *C*
Ensure port 445 is open: The SMB protocol requires TCP port 445 to be open; connections will fail if port 445 is blocked.
References:
https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows

Question #30*Topic 5*
HOTSPOT -
You have an Azure subscription named Subscription1.
Subscription1 contains the virtual machines in the following table:

Name	IP address
VM1	10.0.1.4
VM2	10.0.2.4
VM3	10.0.3.4

Subscription1 contains a virtual network named VNet1 that has the subnets in the following table.

Name	Address space	Connected virtual machine
Subnet1	10.0.1.0/24	VM1
Subnet2	10.0.2.0/24	VM2
Subnet3	10.0.3.0/24	VM3

VM3 has multiple network adapters, including a network adapter named NIC3. IP forwarding is enabled on NIC3. Routing is enabled on VM3.
You create a route table named RT1 that contains the routers in the following table.

Address prefix	Next hop type	Next hop address
10.0.1.0/24	Virtual appliance	10.0.3.4
10.0.2.0/24	Virtual appliance	10.0.3.4

You apply RT1 to Subnet1 and Subnet2.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
VM3 can establish a network connection to VM1.	○	○
If VM3 is turned off VM2 can establish a network connection to VM1.	○	○
VM1 can establish a network connection to VM2.	○	○

Hide Solution | Discussion 9

Correct Answer:

Answer Area

Statements	Yes	No
VM3 can establish a network connection to VM1.	○	○
If VM3 is turned off VM2 can establish a network connection to VM1.	○	○
VM1 can establish a network connection to VM2.	○	○

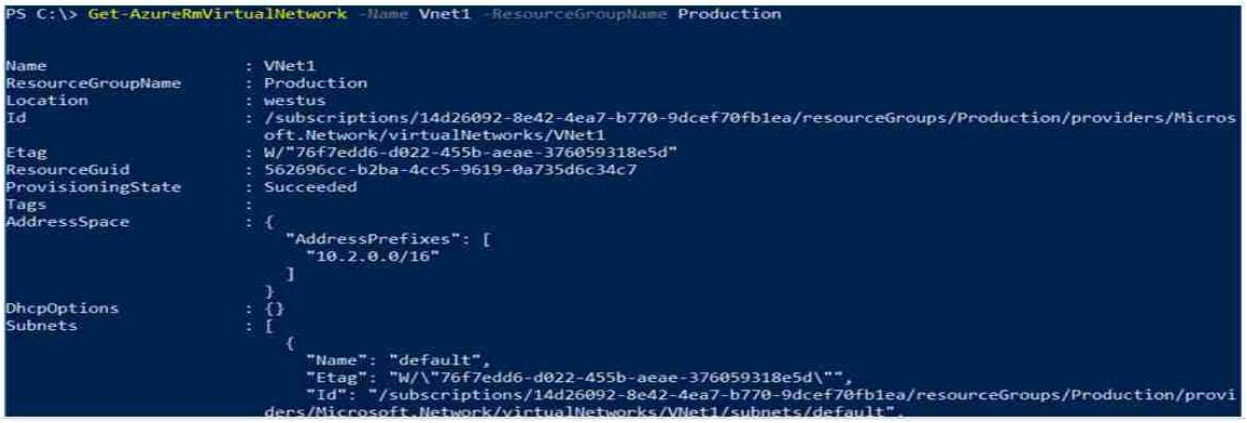
IP forwarding enables the virtual machine a network interface is attached to:
☞ Receive network traffic not destined for one of the IP addresses assigned to any of the IP configurations assigned to the network interface.
☞ Send network traffic with a different source IP address than the one assigned to one of a network interface's IP configurations.
The setting must be enabled for every network interface that is attached to the virtual machine that receives traffic that the virtual machine needs to forward. A virtual machine can forward traffic whether it has multiple network interfaces or a single network interface attached to it.

Box 1: Yes -
The routing table allows connections from VM3 to VM1 and VM2. And as IP forwarding is enabled on VM3, VM3 can connect to VM1.

Box 2: No -
VM3, which has IP forwarding, must be turned on, in order for VM2 to connect to VM1.

Box 3: Yes -
The routing table allows connections from VM1 and VM2 to VM3. IP forwarding on VM3 allows VM1 to connect to VM2 via VM3.
References:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview
https://www.quora.com/What-is-IP-forwarding

Question #31*Topic 5*
HOTSPOT -
You have a virtual network named VNet1 that has the configuration shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Before a virtual machine on VNet1 can receive an IP address from 192.168.1.0/24, you must first **[answer choice]**.

- add a network interface
- add a subnet
- add an address space
- delete a subnet
- delete an address space

Before a virtual machine on VNet1 can receive an IP address from 10.2.1.0/24, you must first **[answer choice]**.

- add a network interface
- add a subnet
- add an address space
- delete a subnet
- delete an address space

Hide Solution | Discussion 24

Correct Answer:

Answer Area

Before a virtual machine on VNet1 can receive an IP address from 192.168.1.0/24, you must first [**answer choice**].

- add a network interface
- add a subnet
- **add an address space**
- delete a subnet
- delete an address space

Before a virtual machine on VNet1 can receive an IP address from 10.2.1.0/24, you must first [**answer choice**].

- **add a network interface**
- add a subnet
- add an address space
- delete a subnet
- delete an address space

Box 1: add an address space -
Your IaaS virtual machines (VMs) and PaaS role instances in a virtual network automatically receive a private IP address from a range that you specify, based on the address space of the subnet they are connected to. We need to add the 192.168.1.0/24 address space.

Box 2: add a network interface -
The 10.2.1.0/24 network exists. We need to add a network interface.
References:
https://docs.microsoft.com/en-us/office365/enterprise/designing-networking-for-microsoft-azure-iaas https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-static-private-ip-arm-pportal

Question #32*Topic 5*
HOTSPOT -
You have an Azure subscription named Subscription1. Subscription1 contains the resources in the following table.

Name	Type
VMRG	Resource group
VNet1	Virtual network
VNet2	Virtual network
VM5	Virtual machine connected to VNet1
VM6	Virtual machine connected to VNet2

In Azure, you create a private DNS zone named adatum.com. You set the registration virtual network to VNet2. The adatum.com zone is configured is shown in the following exhibit.

Resource group (change)
vmrg

Subscription (change)
Azure Pass

Subscription ID
a4fde29b-d56a-4f6c-8298-6c53cd0b720c

Tags (change)
Click here to add tags

Name server 1
-

Name server 2
-

Name server 3
-

Name server 4
-

Search record sets

NAME	TYPE	TTL	VALUE
@	SOA	3600	Email: azuredns-hostmaster.microsoft.com Host: internal.cloudapp.net Refresh: 3600 Retry: 300 Expire: 2419200 Minimum TTL: 300 Serial number: 1
vm1	A	3600	10.1.0.4
vm9	A	3600	10.1.0.12

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
The A record for VM5 will be registered automatically in the adatum.com zone.	○	○
VM5 can resolve VM9.adatum.com.	○	○
VM6 can resolve VM9.adatum.com.	○	○

Hide Solution | Discussion 11

Correct

Answer Area

Statements	Yes	No
The A record for VM5 will be registered automatically in the adatum.com zone.	○	○
VM5 can resolve VM9.adatum.com.	○	○
VM6 can resolve VM9.adatum.com.	○	○

Answer:
Box 1: No -
Azure DNS provides automatic registration of virtual machines from a single virtual network that's linked to a private zone as a registration virtual network. VM5 does not belong to the registration virtual network though.

Box 2: No -
Forward DNS resolution is supported across virtual networks that are linked to the private zone as resolution virtual networks. VM5 does belong to a resolution virtual network.

Box 3: Yes -
VM6 belongs to registration virtual network, and an A (Host) record exists for VM9 in the DNS zone.
By default, registration virtual networks also act as resolution virtual networks, in the sense that DNS resolution against the zone works from any of the virtual machines within the registration virtual network.
References:
https://docs.microsoft.com/en-us/azure/dns/private-dns-overview

Question #33*Topic 5*

You have a virtual network named VNet1 as shown in the exhibit. (Click the Exhibit tab.)

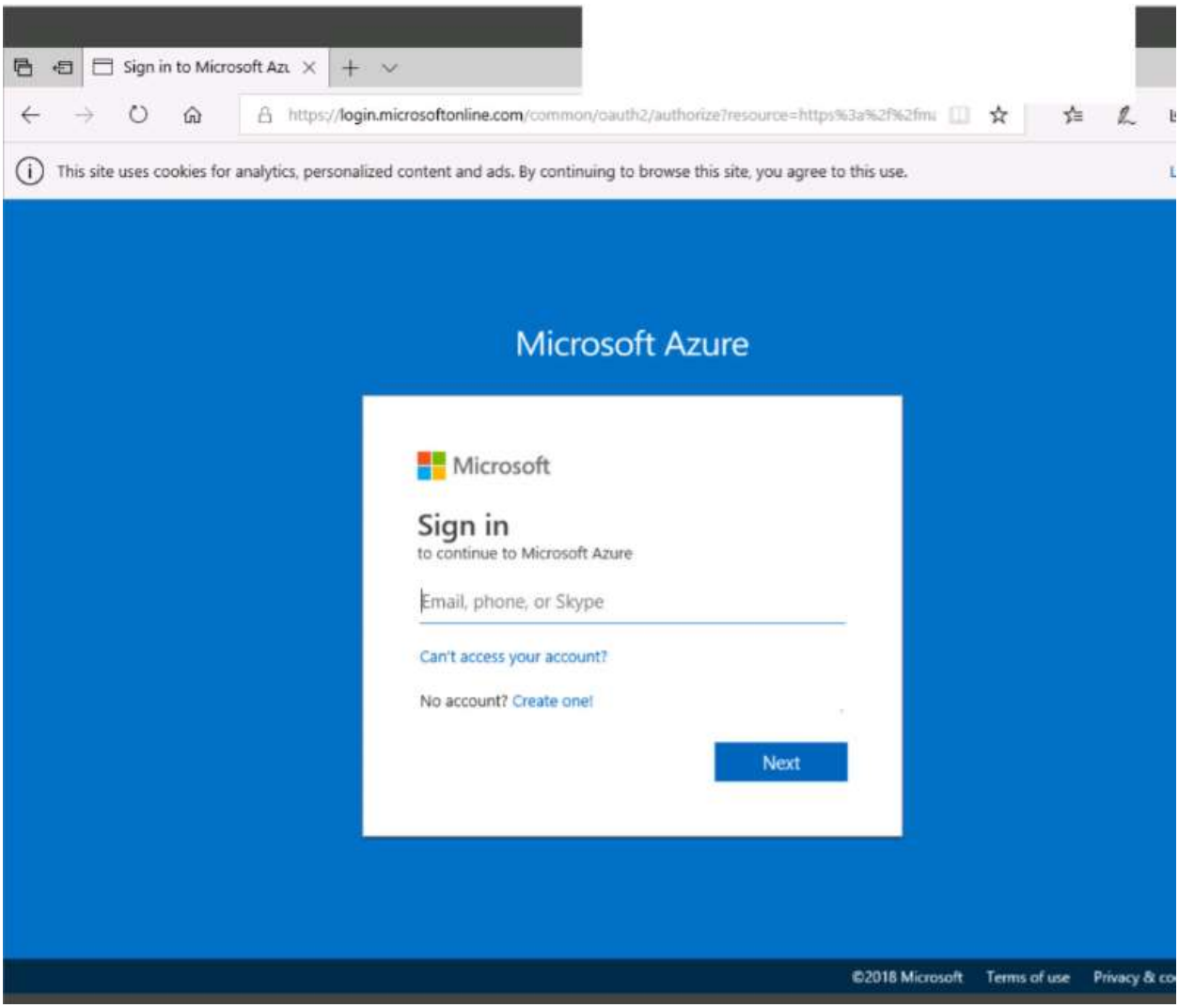
No devices are connected to VNet1.
You plan to peer VNet1 to another virtual network named VNet2 in the same region. VNet2 has an address space of 10.2.0.0/16.
You need to create the peering.
What should you do first?

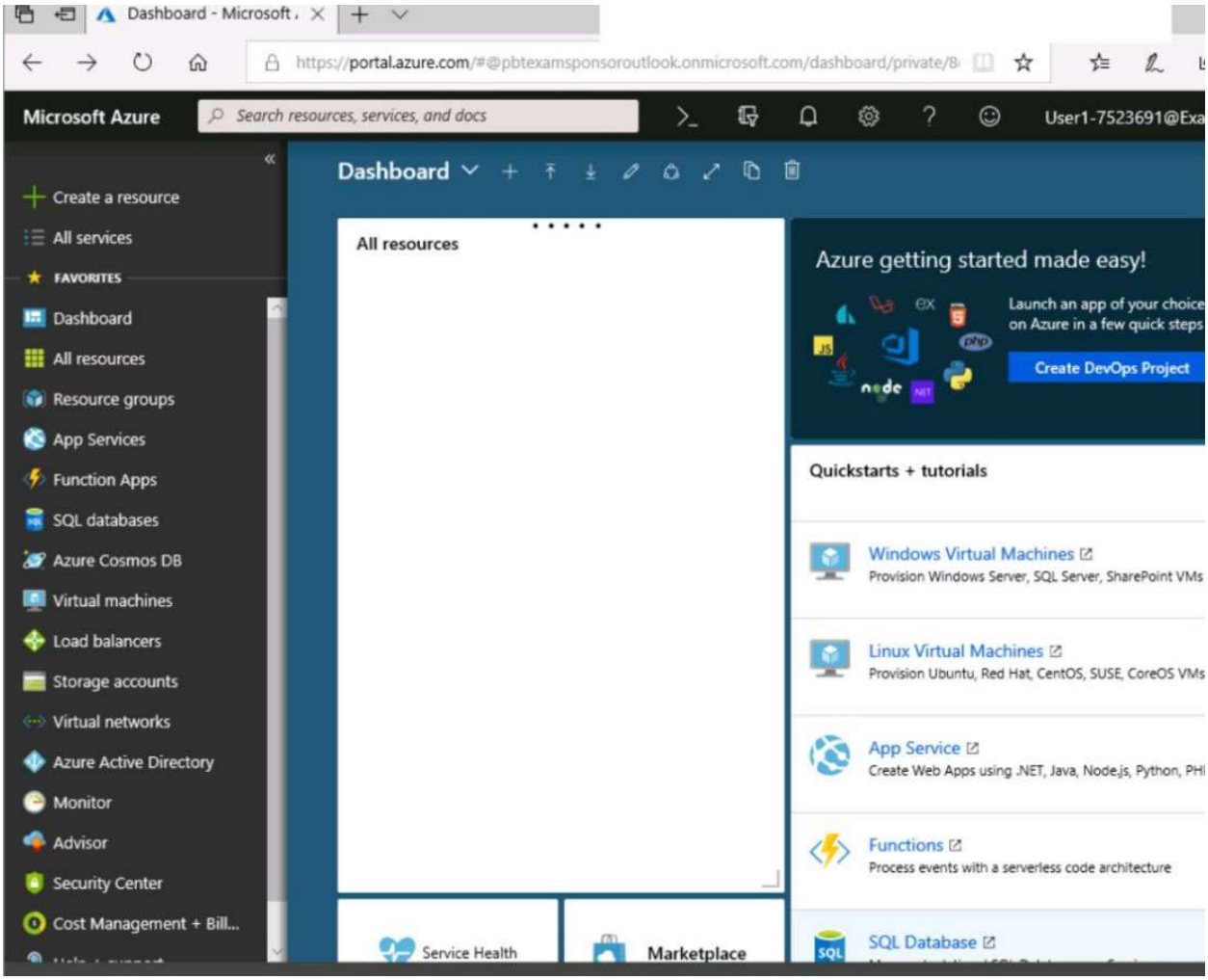
- A. Add a gateway subnet to VNet1.
- B. Create a subnet on VNet1 and VNet2
- C. Modify the address space of VNet1
- D. Configure a service endpoint on VNet2

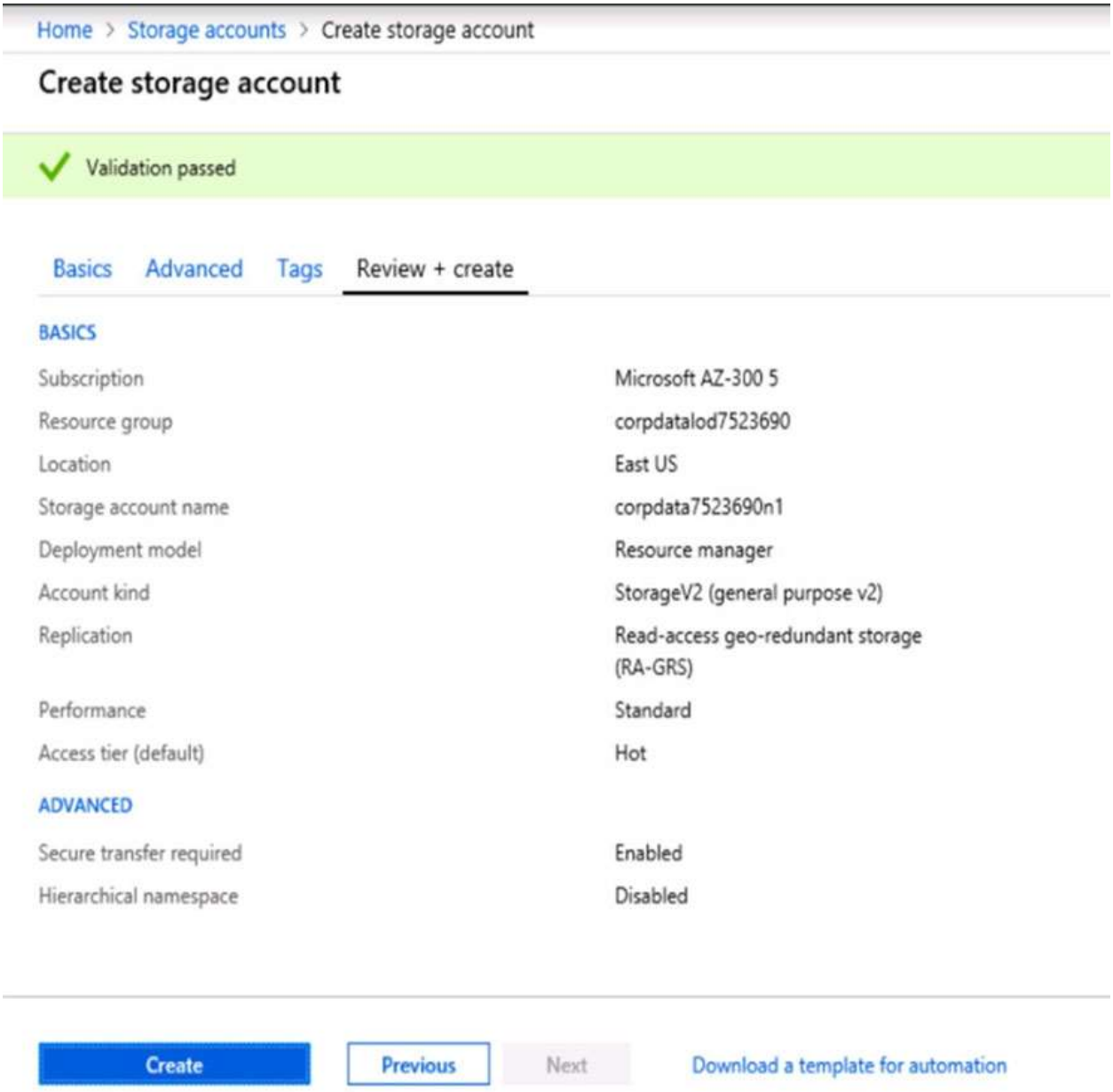
Hide Solution | Discussion 5

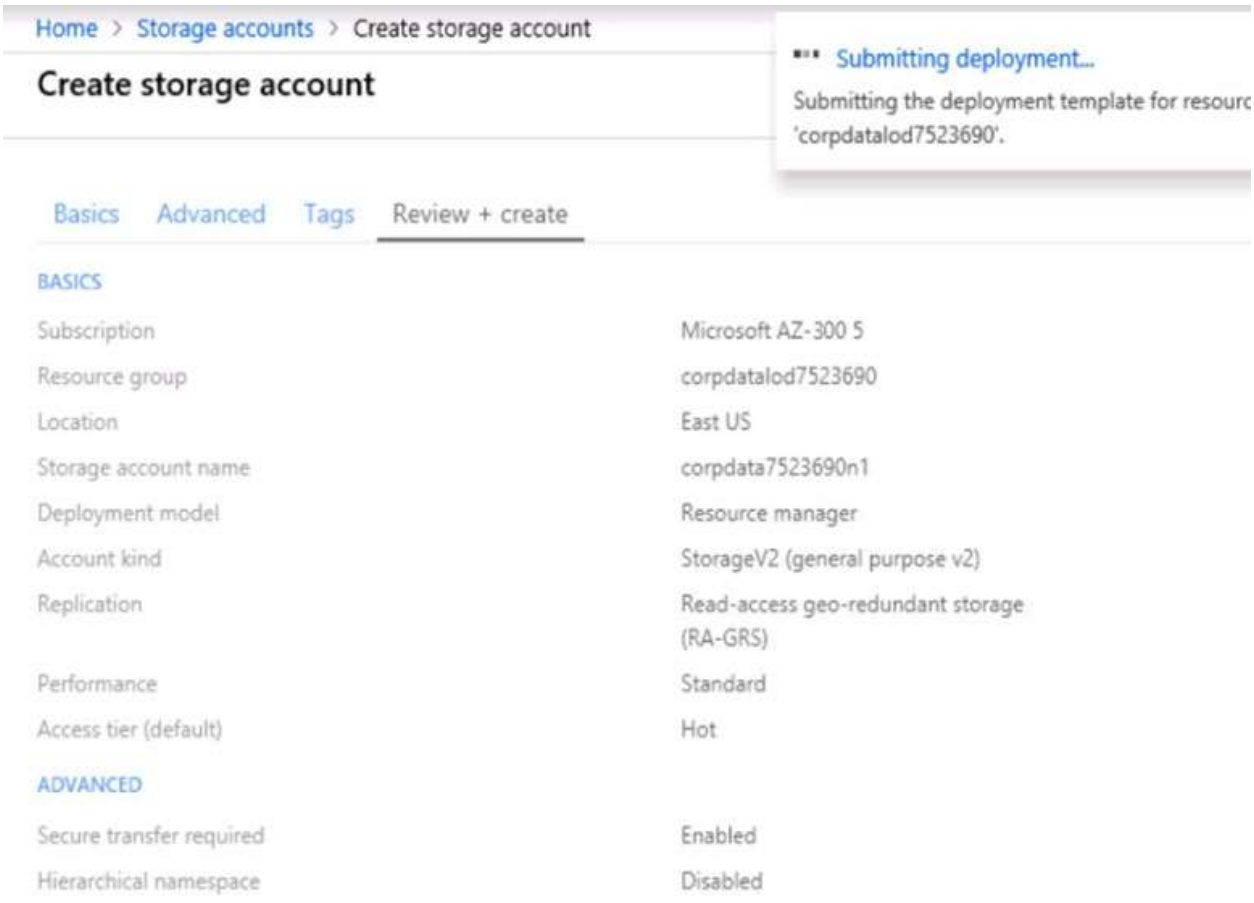
Correct Answer: *C*
The virtual networks you peer must have non-overlapping IP address spaces. The exhibit indicates that VNet1 has an address space of 10.2.0.0/16, which is the same as VNet2, and thus overlaps. We need to change the address space for VNet1.
References:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering#requirements-and-constraints

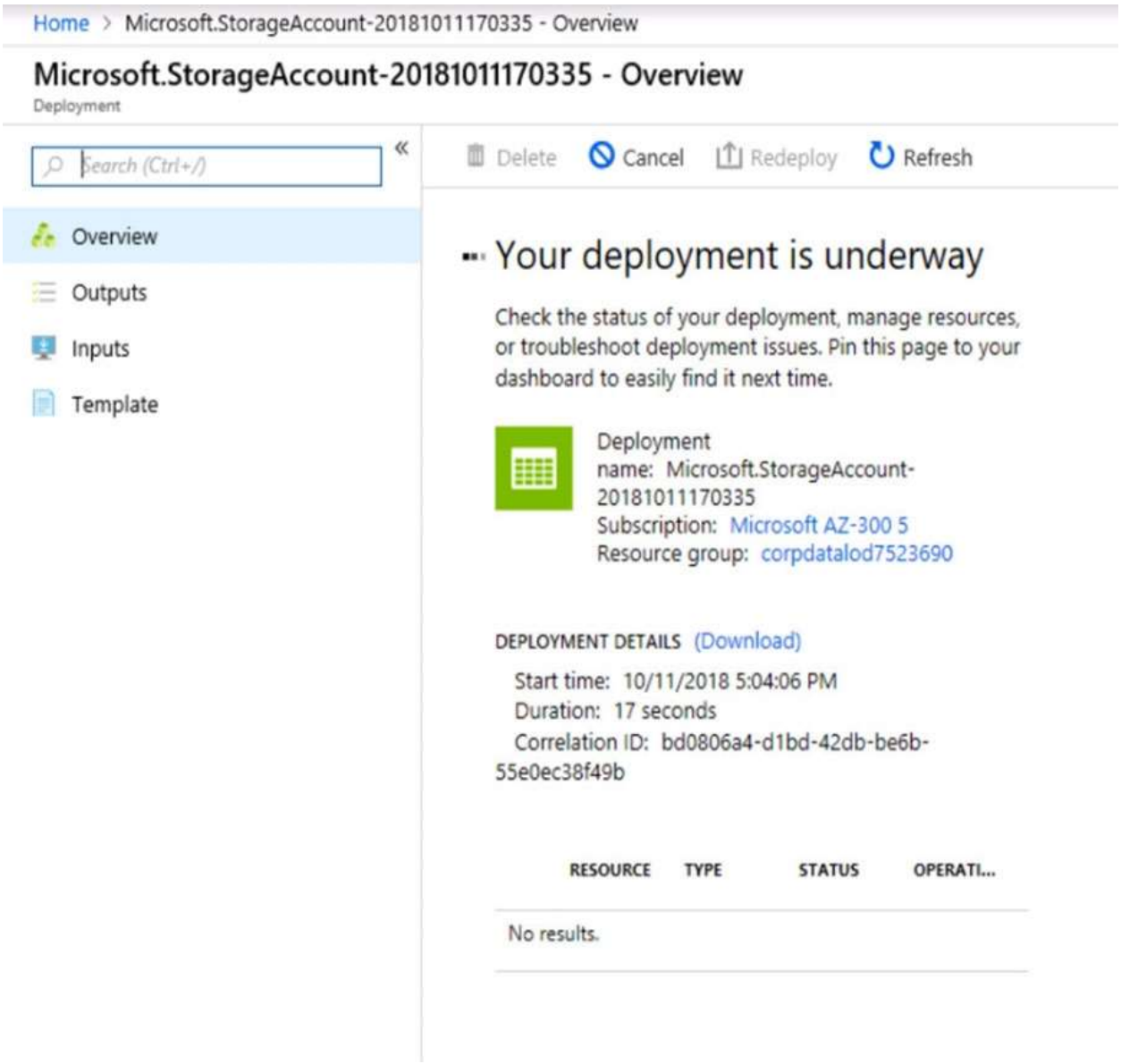
Question #34*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

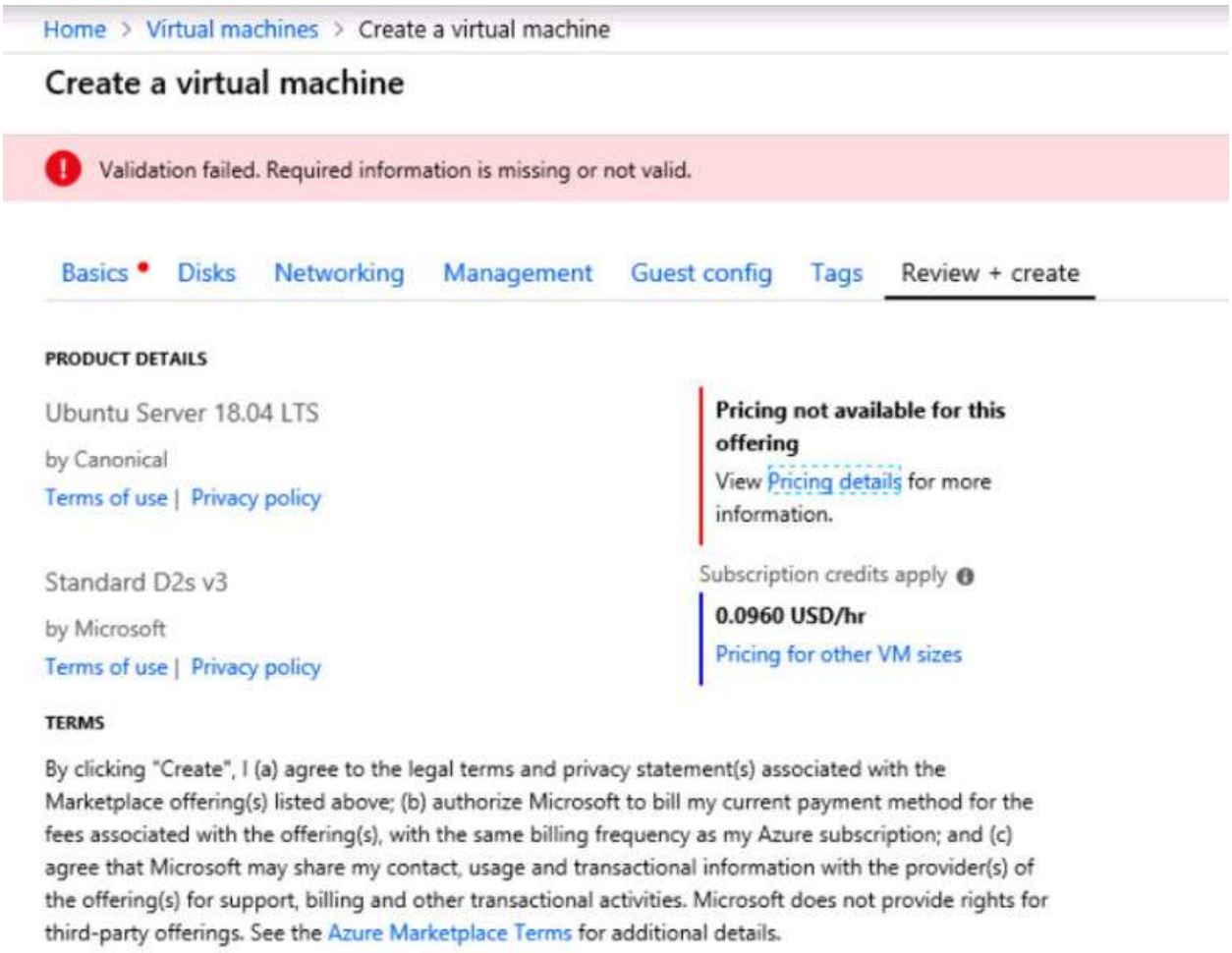












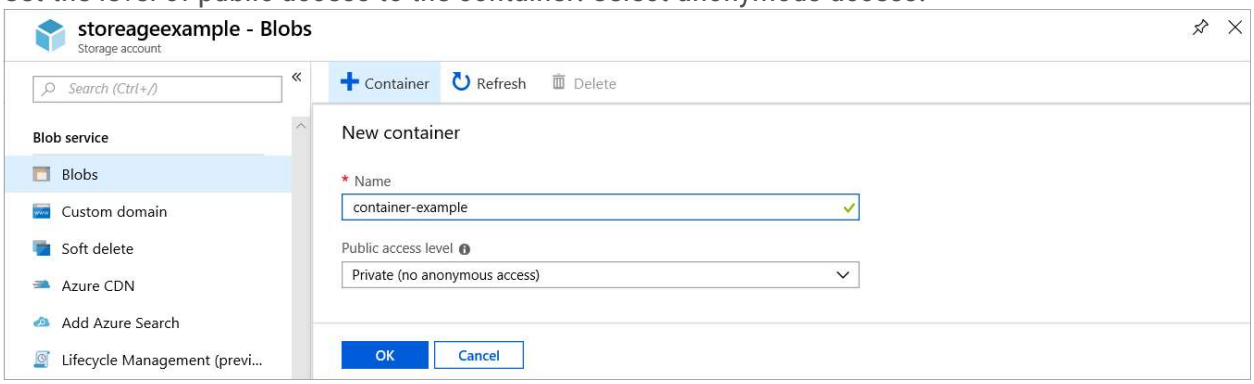
When you are finished performing all the tasks, click the ›€˜Next›€™ button.
Note that you cannot return to the lab once you click the ›€˜Next›€™ button. Scoring occur in the background while you complete the rest of the exam.

Overview -
The following section of the exam is a lab. In this section, you will perform a set of tasks in a live environment. While most functionality will be available to you as it would be in a live environment, some functionality (e.g., copy and paste, ability to navigate to external websites) will not be possible by design.
Scoring is based on the outcome of performing the tasks stated in the lab. In other words, it doesn›€™t matter how you accomplish the task, if you successfully perform it, you will earn credit for that task.
Labs are not timed separately, and this exam may have more than one lab that you must complete. You can use as much time as you would like to complete each lab. But, you should manage your time appropriately to ensure that you are able to complete the lab(s) and all other sections of the exam in the time provided.
Please note that once you submit your work by clicking the Next button within a lab, you will NOT be able to return to the lab.

To start the lab -
You may start the lab by clicking the Next button.
Your company plans to store several documents on a public website.
You need to create a container named bios that will host the documents in the corpdata7523690n1 storage account. The solution must ensure anonymous access and must ensure that users can browse folders in the container.
What should you do from the Azure portal?

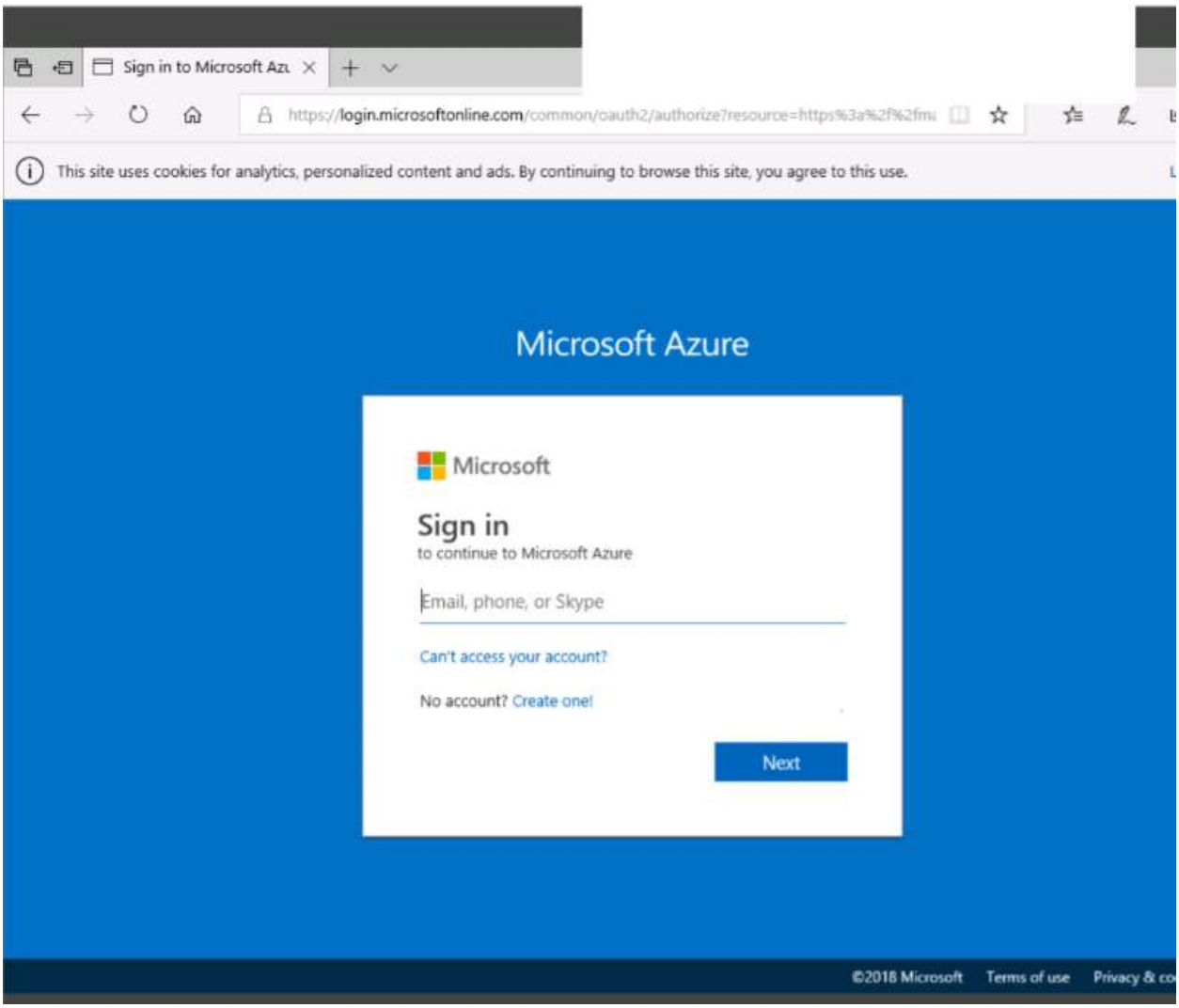
Hide Solution Discussion 7

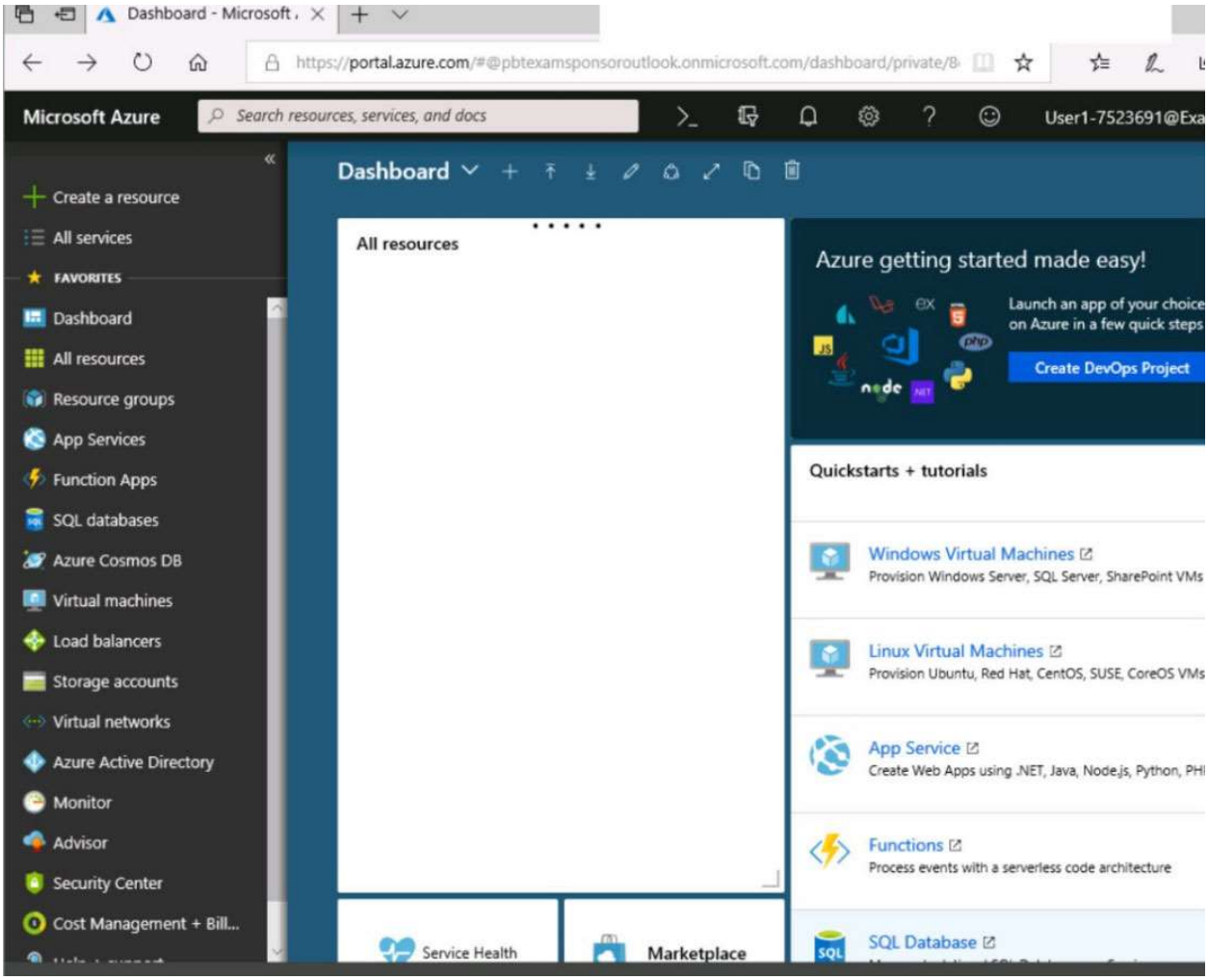
Correct Answer: *See explanation below.*
Azure portal create public container
To create a container in the Azure portal, follow these steps:
Step 1: Navigate to your new storage account in the Azure portal.
Step 2: In the left menu for the storage account, scroll to the lob service section, then select Blobs.
Select the + Container button.
Type a name for your new container: bios
Set the level of public access to the container: Select anonymous access.

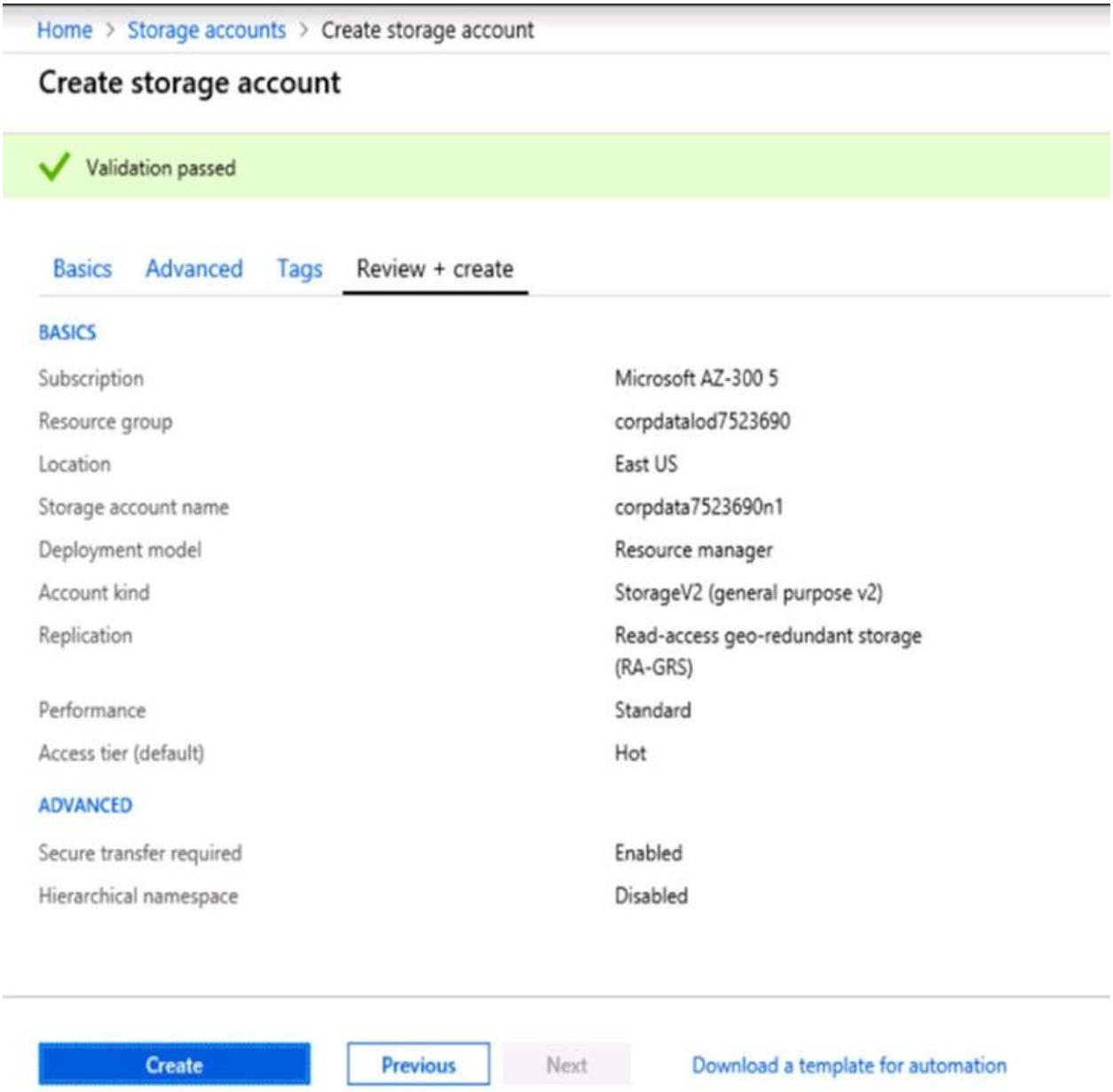


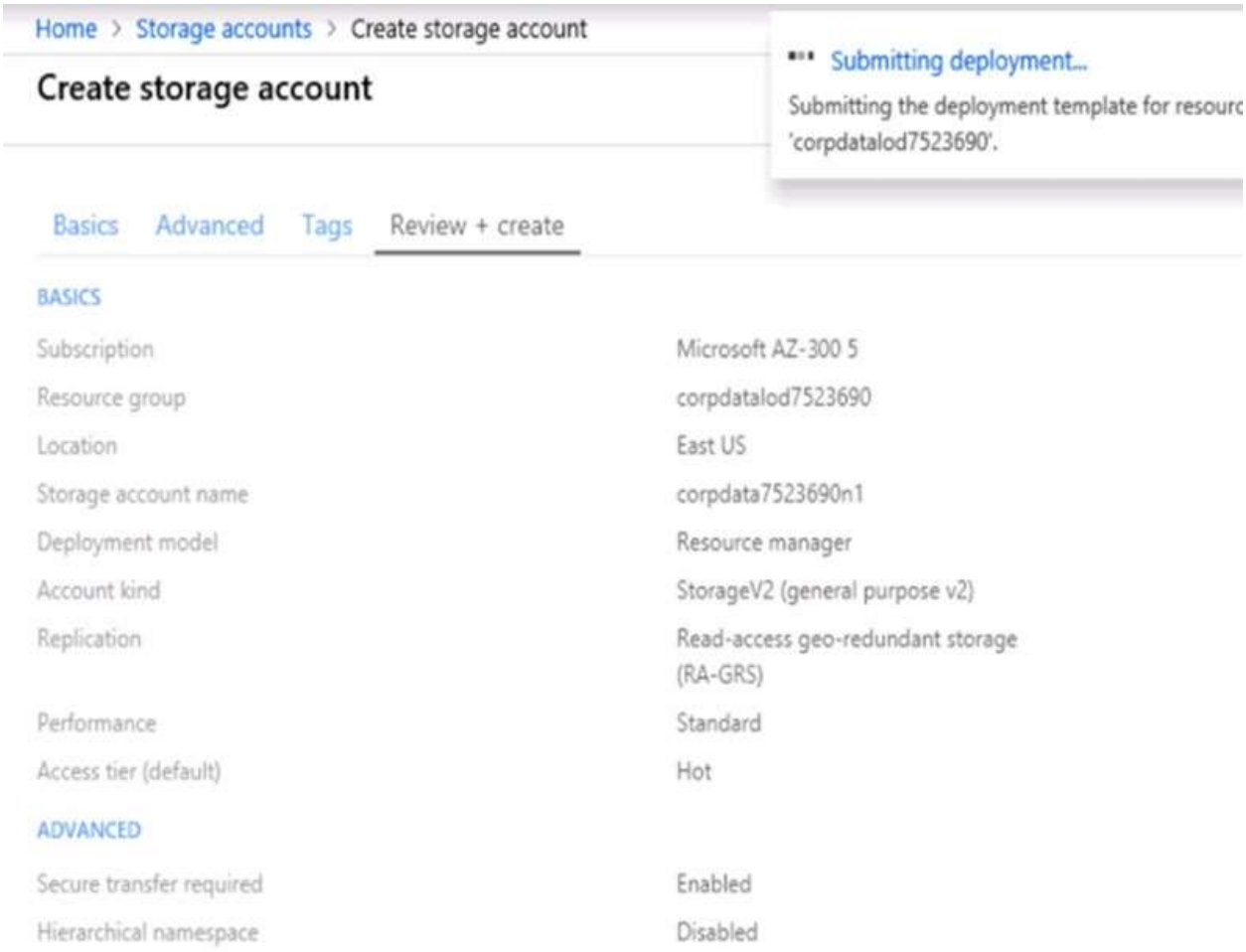
Step 3: Select OK to create the container.
References:
https://docs.microsoft.com/en-us/azure/storage/blobs/storage-quickstart-blobs-portal

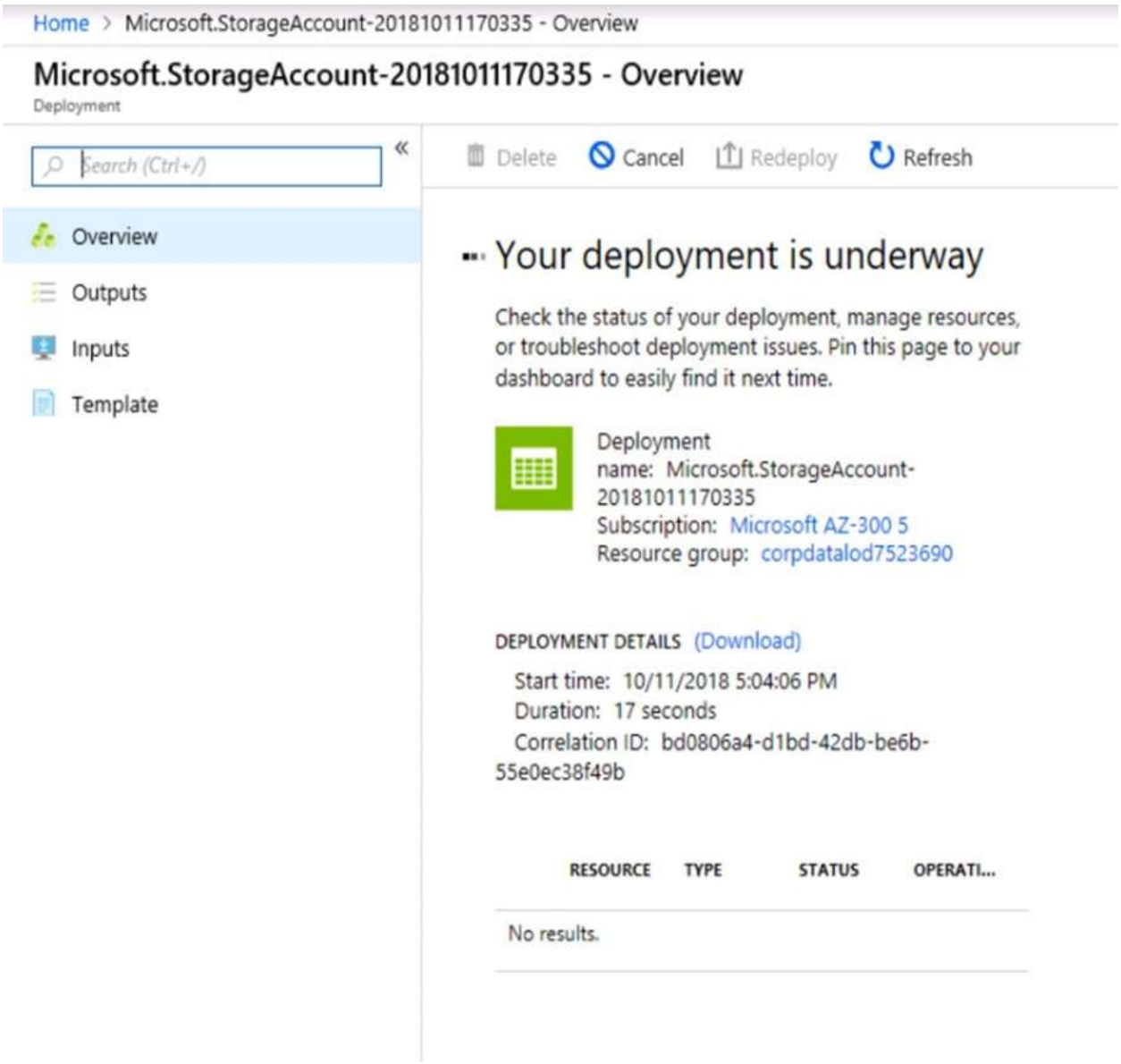
Question #35*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

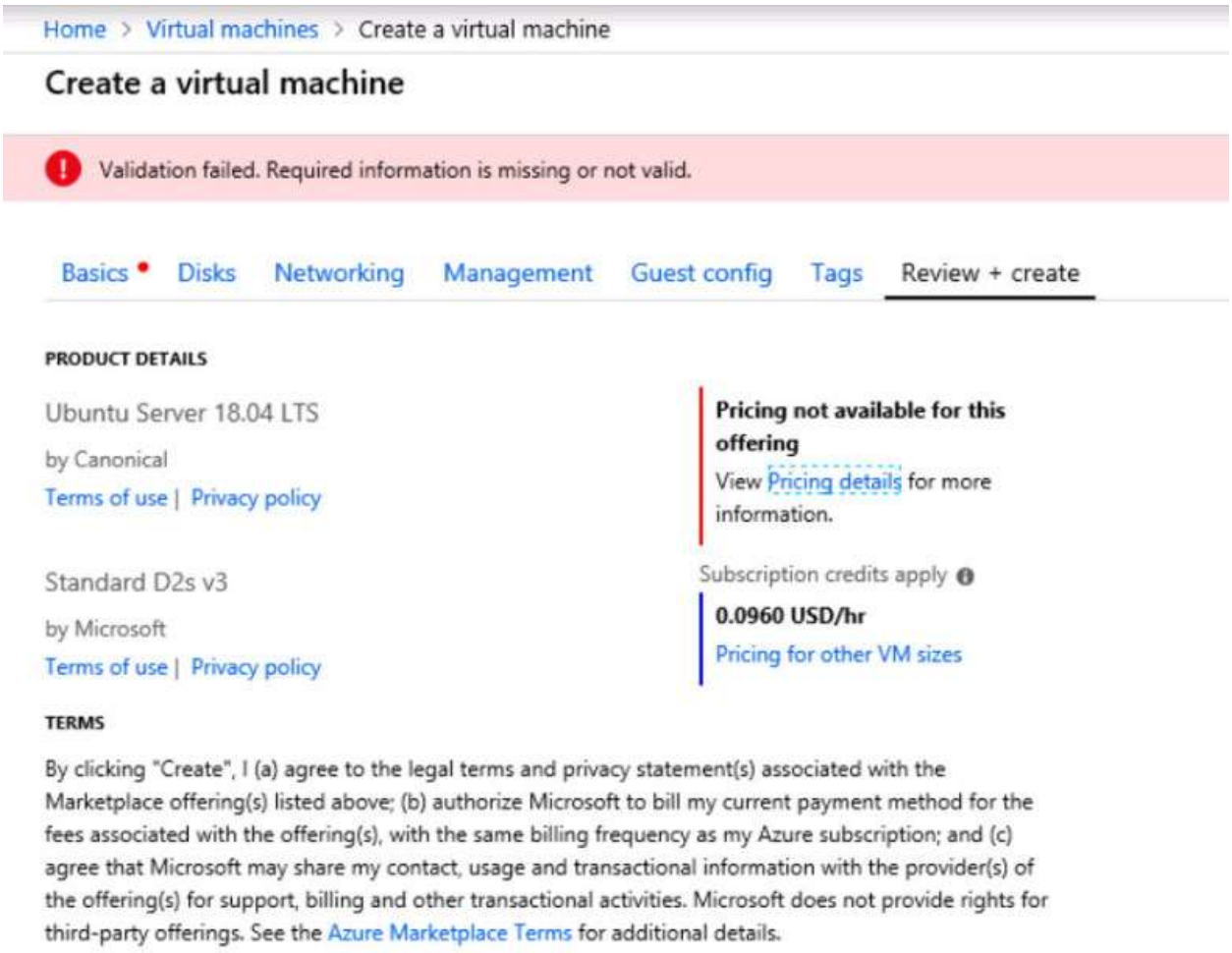












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
Note that you cannot return to the lab once you click the ›€˜Next›€™ button. Scoring occur in the background while you complete the rest of the exam.

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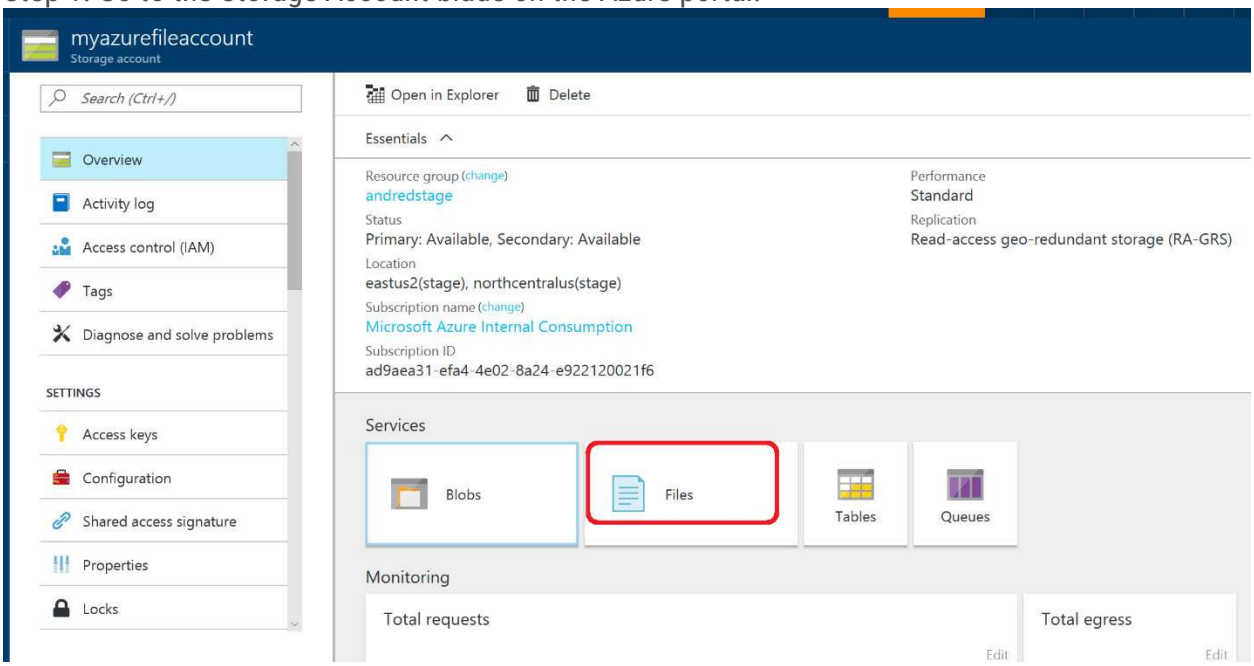
Please note that once you submit your work by clicking the Next button within a lab, you will NOT be able to return to the lab.

To start the lab -
You may start the lab by clicking the Next button.
Your company plans to host in Azure the source files of several line-of-business applications.
You need to create an Azure file share named corpsoftware in the corpdata7523690n1 storage account. The solution must ensure that corpsoftware can store only up to 250 GB of data.
What should you do from the Azure portal?

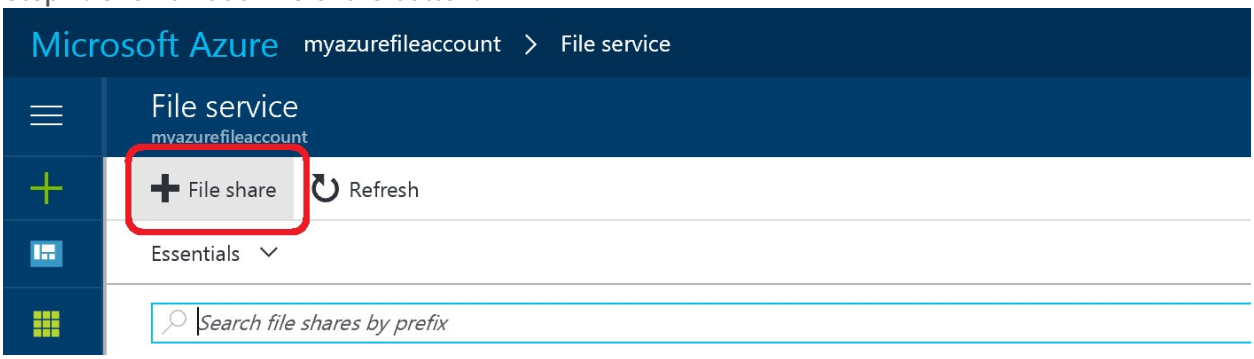
Hide Solution Discussion 10

Correct Answer: *See explanation below.*

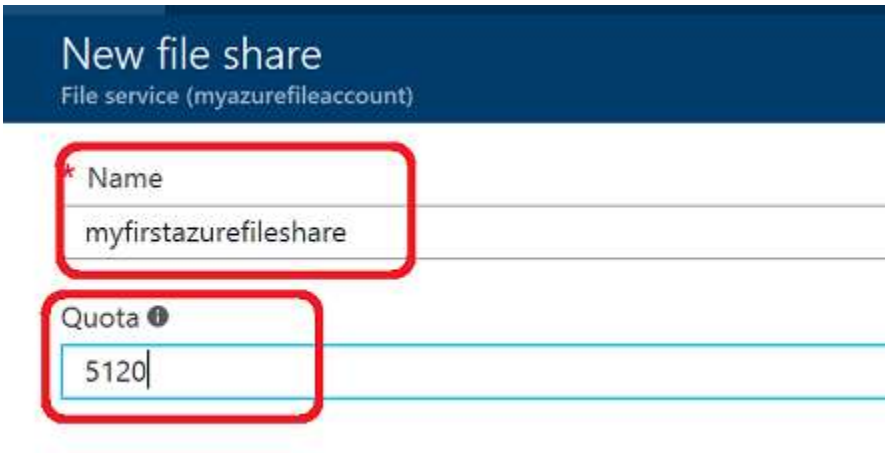
Step 1: Go to the Storage Account blade on the Azure portal:



Step 2: Click on add File Share button:

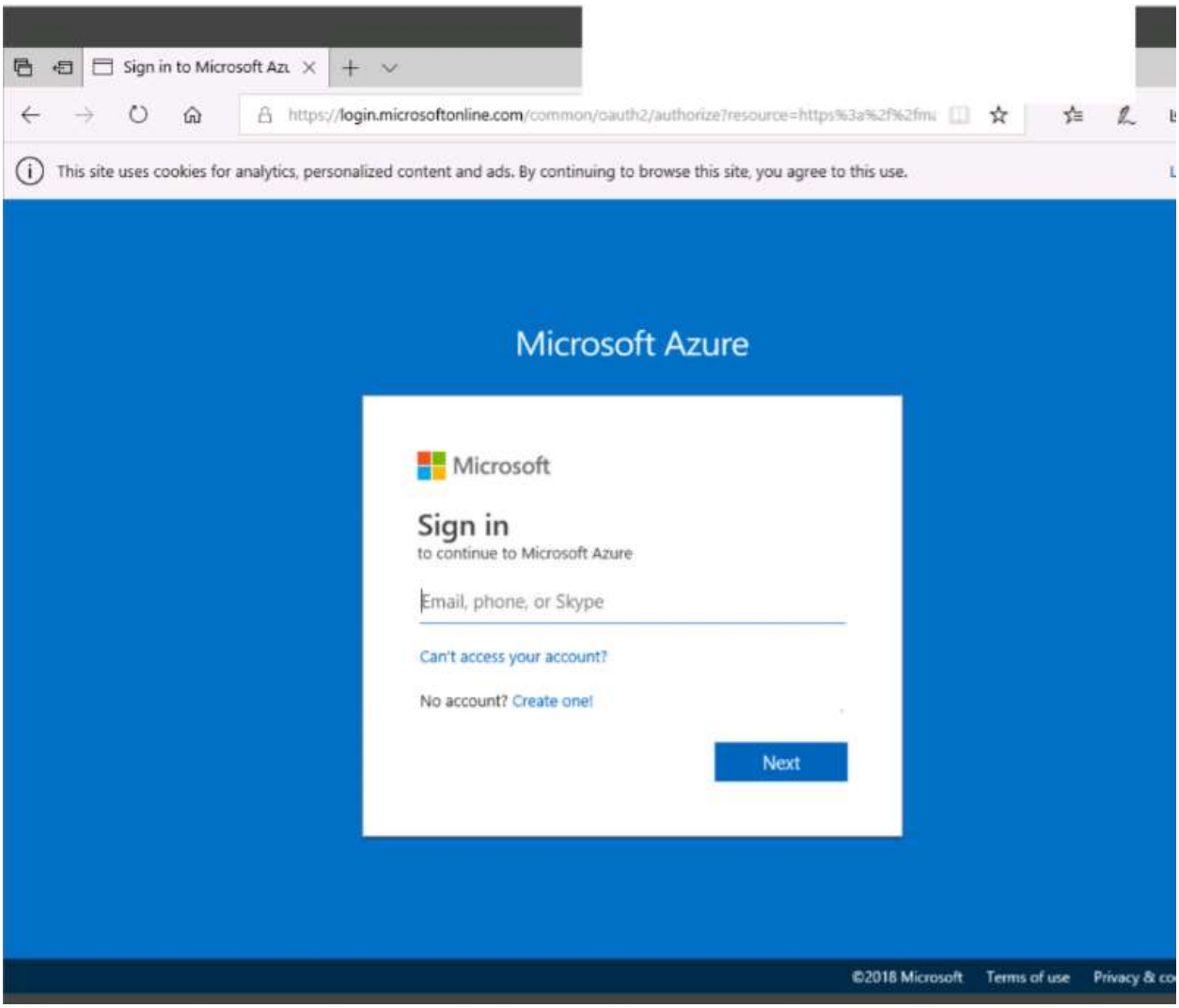


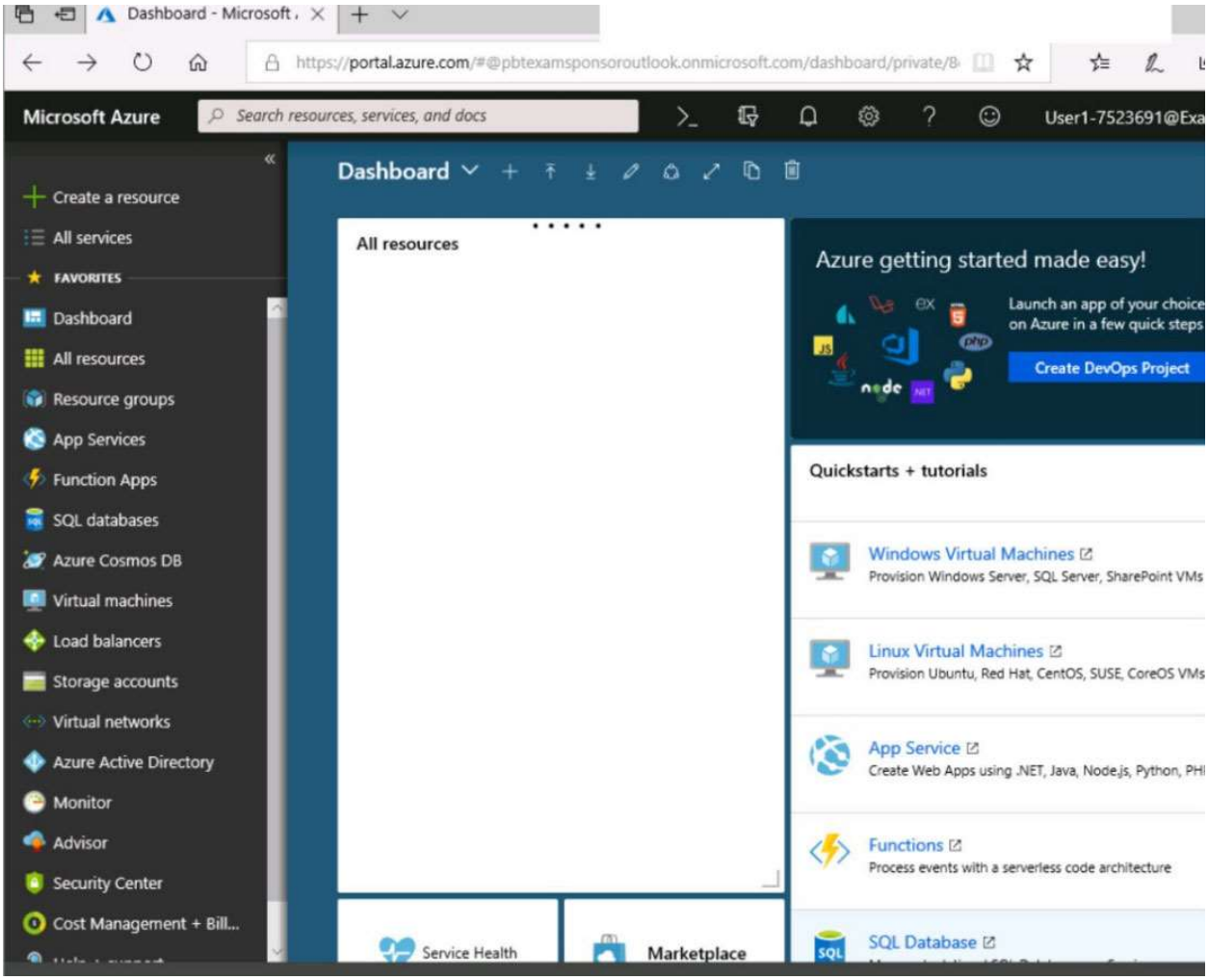
Step 3: Provide Name (corpdata7523690n1) and Quota (250 GB).

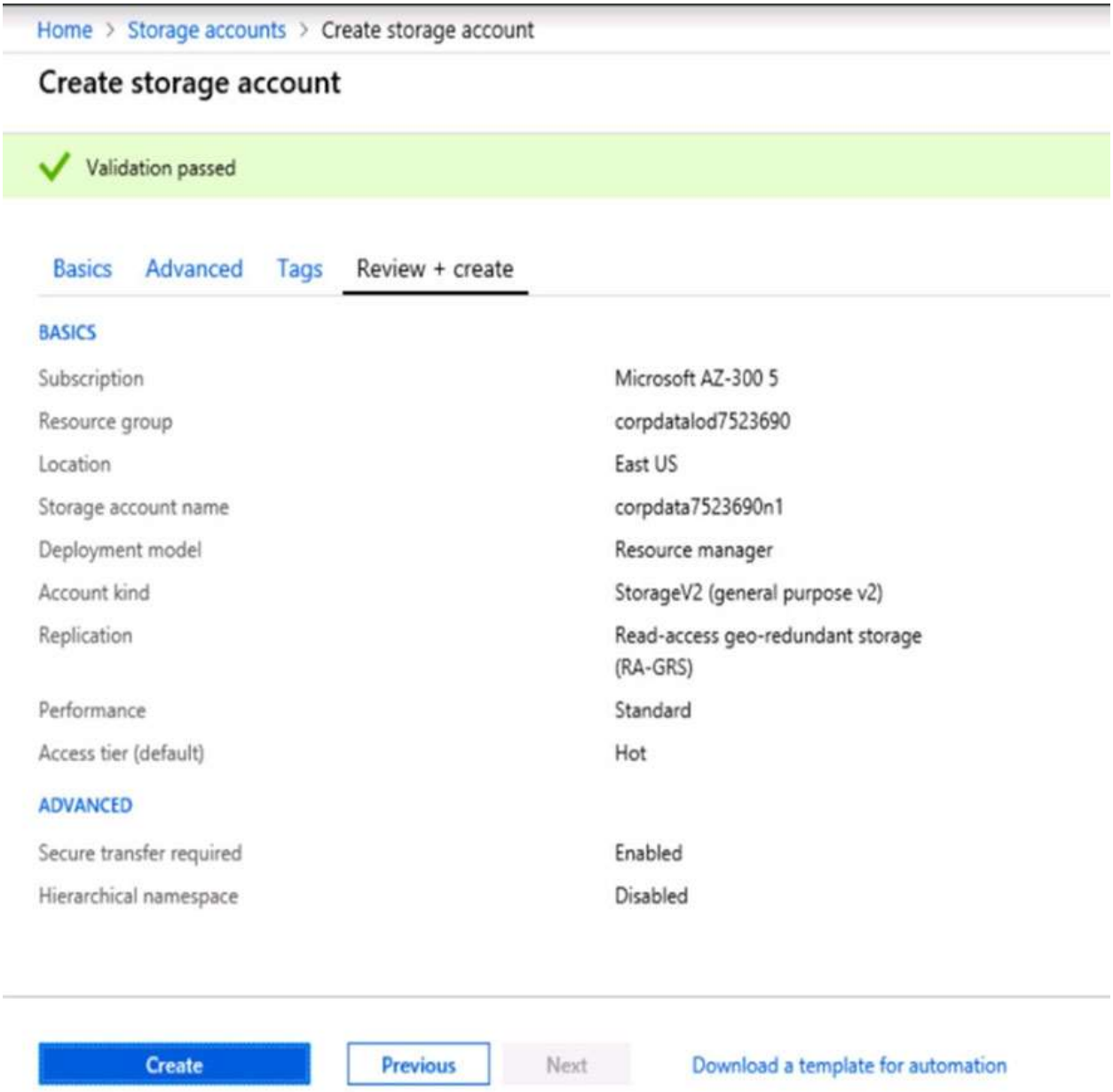


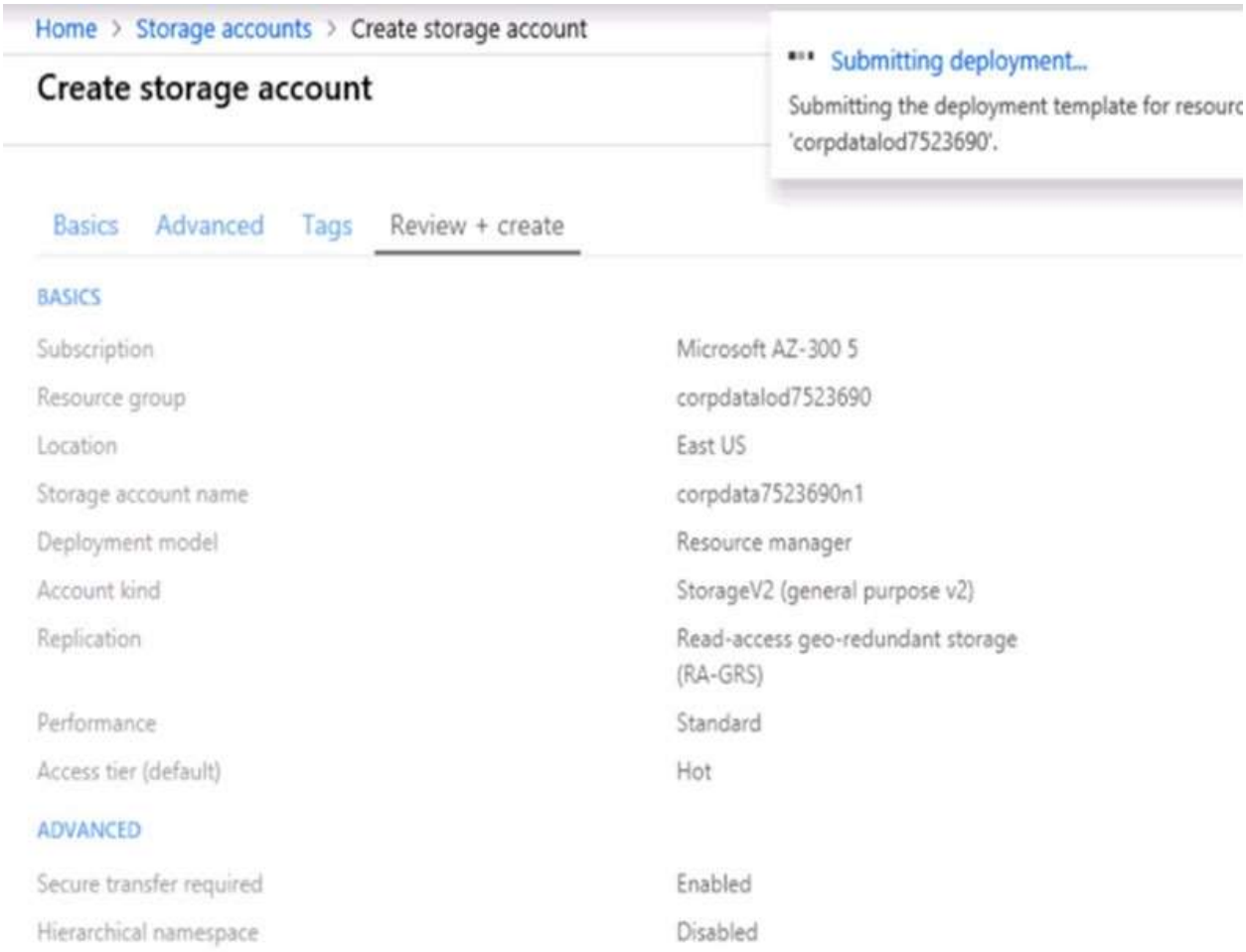
References:
https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share

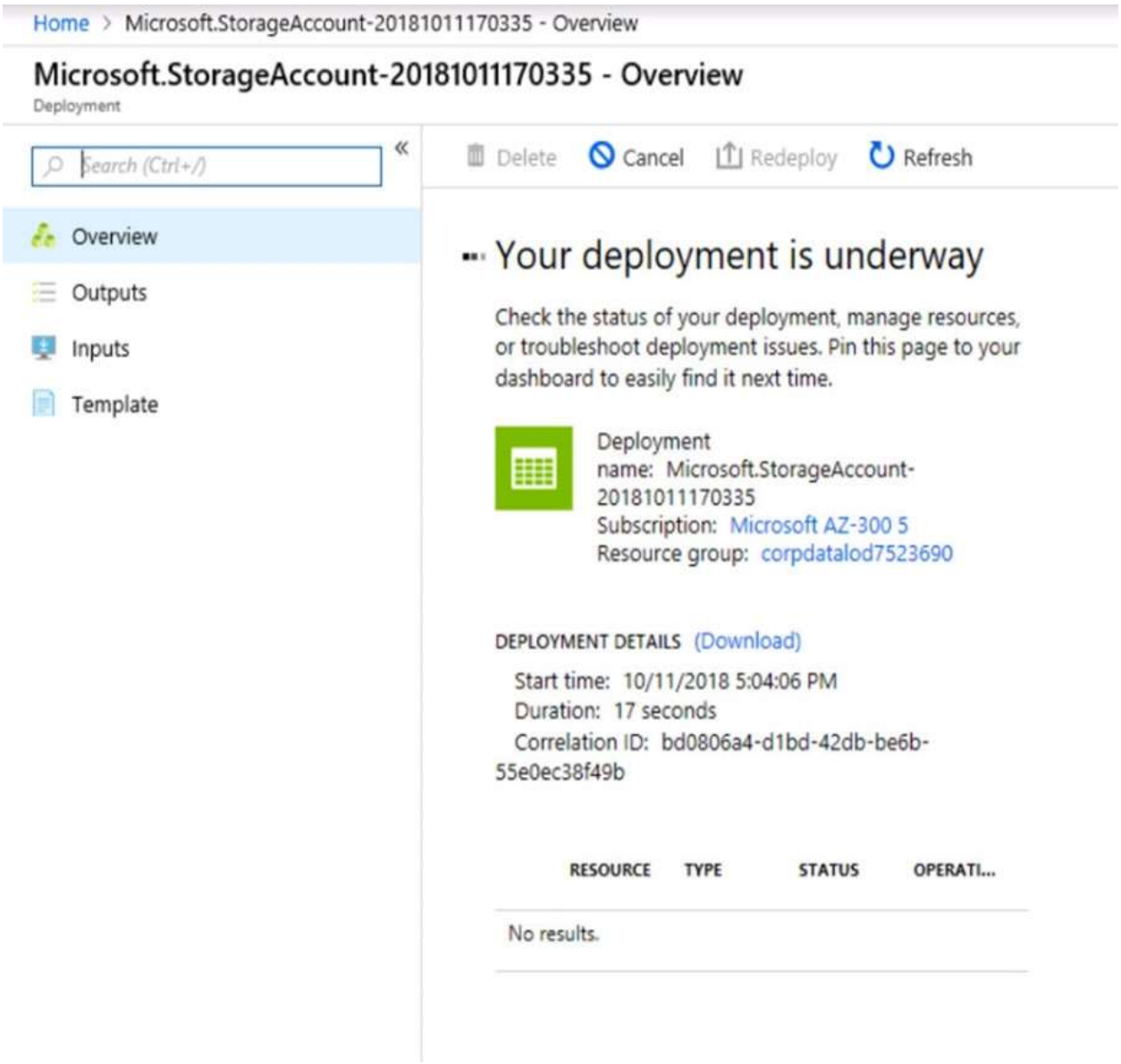
Question #36*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

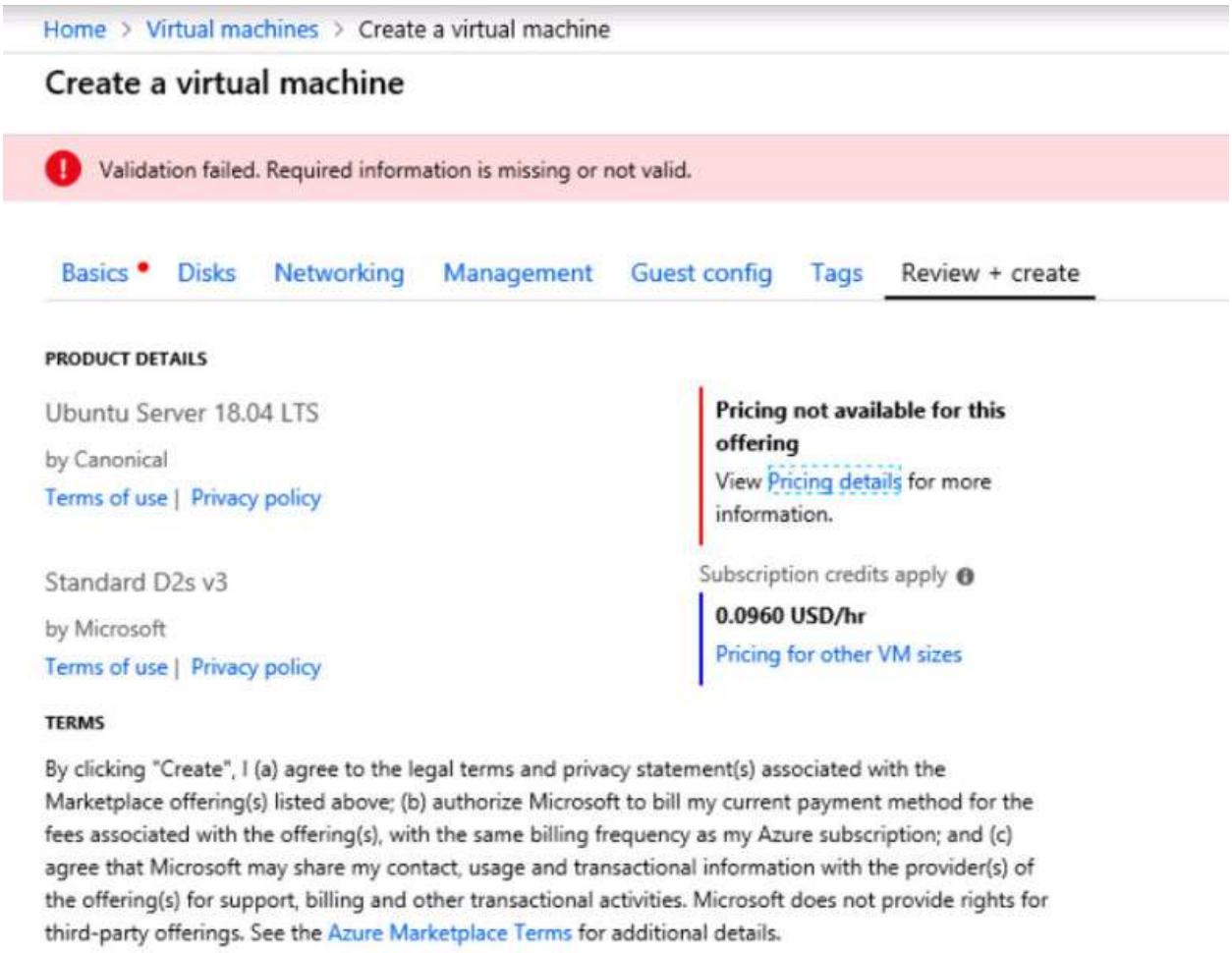












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
Note that you cannot return to the lab once you click the ›€˜Next›€™ button. Scoring occur in the background while you complete the rest of the exam.

Overview -
The following section of the exam is a lab. In this section, you will perform a set of tasks in a live environment. While most functionality will be available to you as it would be in a live environment, some functionality (e.g., copy and paste, ability to navigate to external websites) will not be possible by design.
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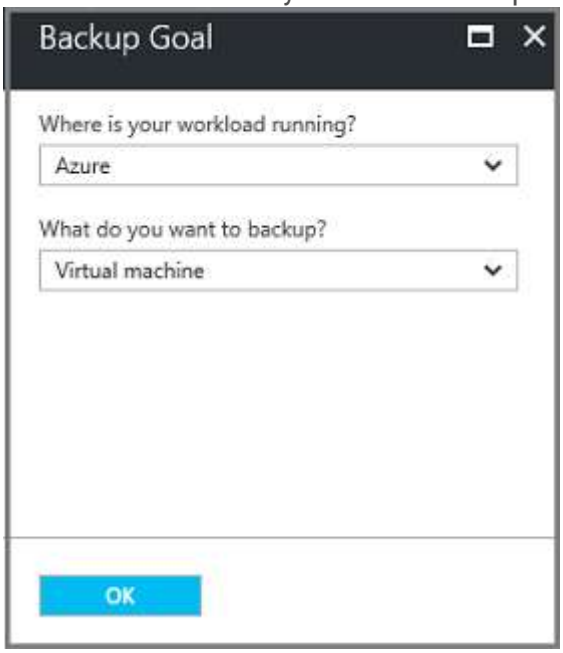
Please note that once you submit your work by clicking the Next button within a lab, you will NOT be able to return to the lab.

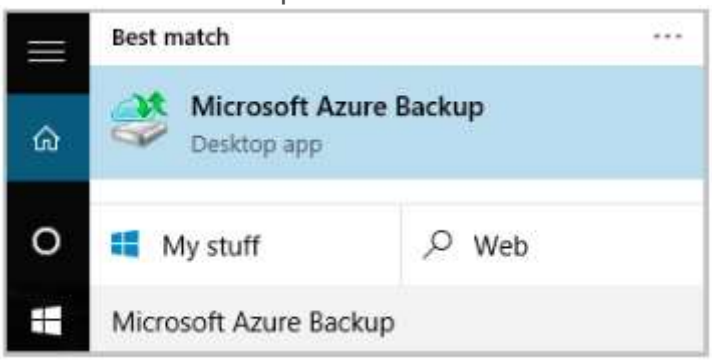
To start the lab -
You may start the lab by clicking the Next button.
You plan to back up all the Azure virtual machines in your Azure subscription at 02:00 Coordinated Universal Time (UTC) daily.
You need to prepare the Azure environment to ensure that any new virtual machines can be configured quickly for backup. The solution must ensure that all the daily backups performed at 02:00 UTC are stored for only 90 days.
What should you do from your Recovery Services vault on the Azure portal?

Hide Solution Discussion 9

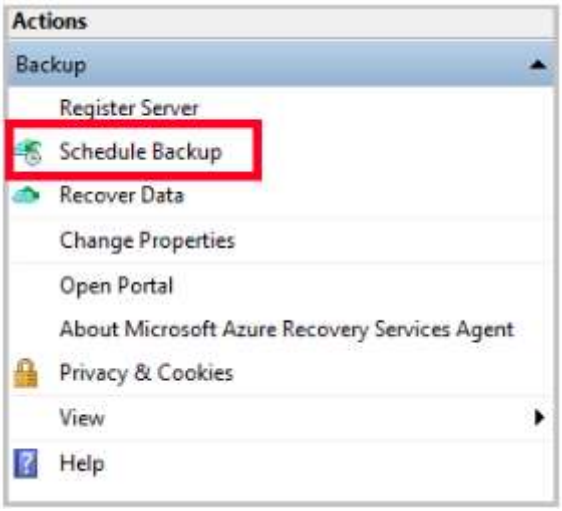
Correct Answer: *See explanation below.*
Task A: Create a Recovery Services vault (if a vault already exists skip this task, go to Task B below)
A1. From Azure Portal, On the Hub menu, click All services and in the list of resources, type Recovery Services and click Recovery Services vaults.
If there are recovery services vaults in the subscription, the vaults are listed.
A2. On the Recovery Services vaults menu, click Add.
A3. The Recovery Services vault blade opens, prompting you to provide a Name, Subscription, Resource group, and Location
Task B.
B1. On the Recovery Services vault blade (for the vault you just created), in the Getting Started section, click Backup, then on the Getting Started with Backup blade, select Backup goal.
The Backup Goal blade opens. If the Recovery Services vault has been previously configured, then the Backup Goal blades opens when you click Backup on the
Recovery Services vault blade.
B2. From the Where is your workload running? drop-down menu, select Azure.
B3. From the What do you want to backup? menu, select Virtual Machine, and click OK.



B4. Finish the Wizard.
Task C. create a backup schedule
C1. Open the Microsoft Azure Backup agent. You can find it by searching your machine for Microsoft Azure Backup.



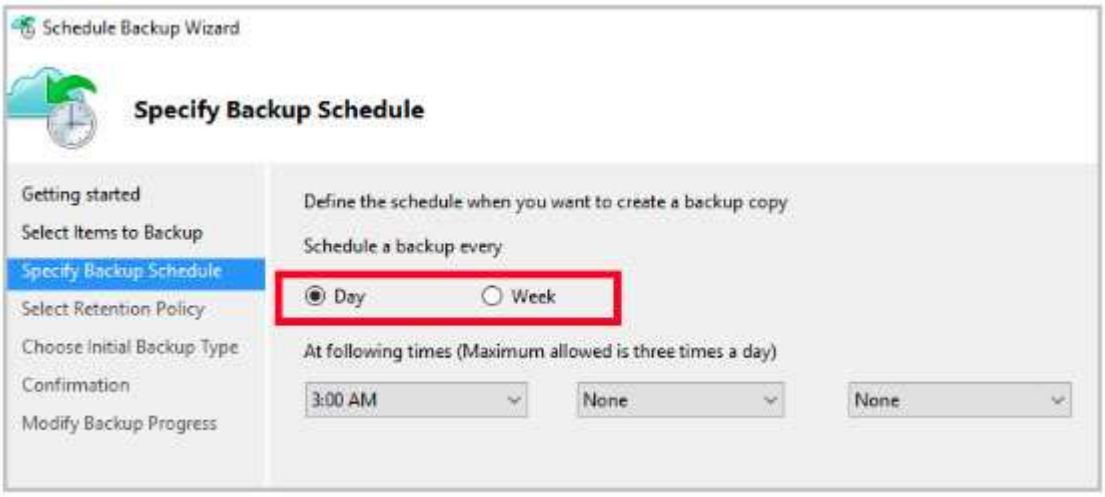
C2. In the Backup agent's Actions pane, click Schedule Backup to launch the Schedule Backup Wizard.



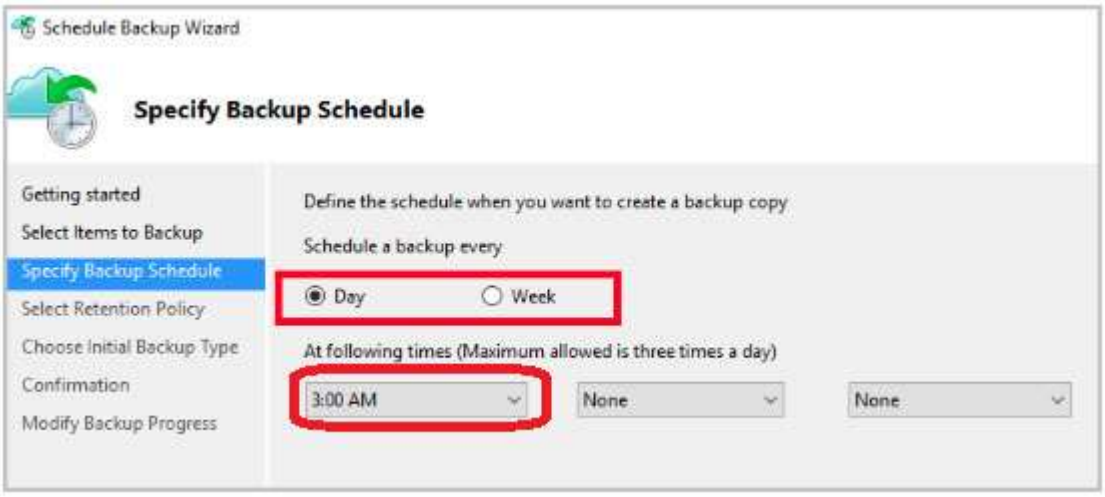
C3. On the Getting started page of the Schedule Backup Wizard, click Next.
C4. On the Select Items to Backup page, click Add Items.
The Select Items dialog opens.
C5. Select Blob Storage you want to protect, and then click OK.
C6.In the Select Items to Backup page, click Next.
On the Specify Backup Schedule page, specify

Schedule a backup every: day -

At the following times: 2.00 AM -

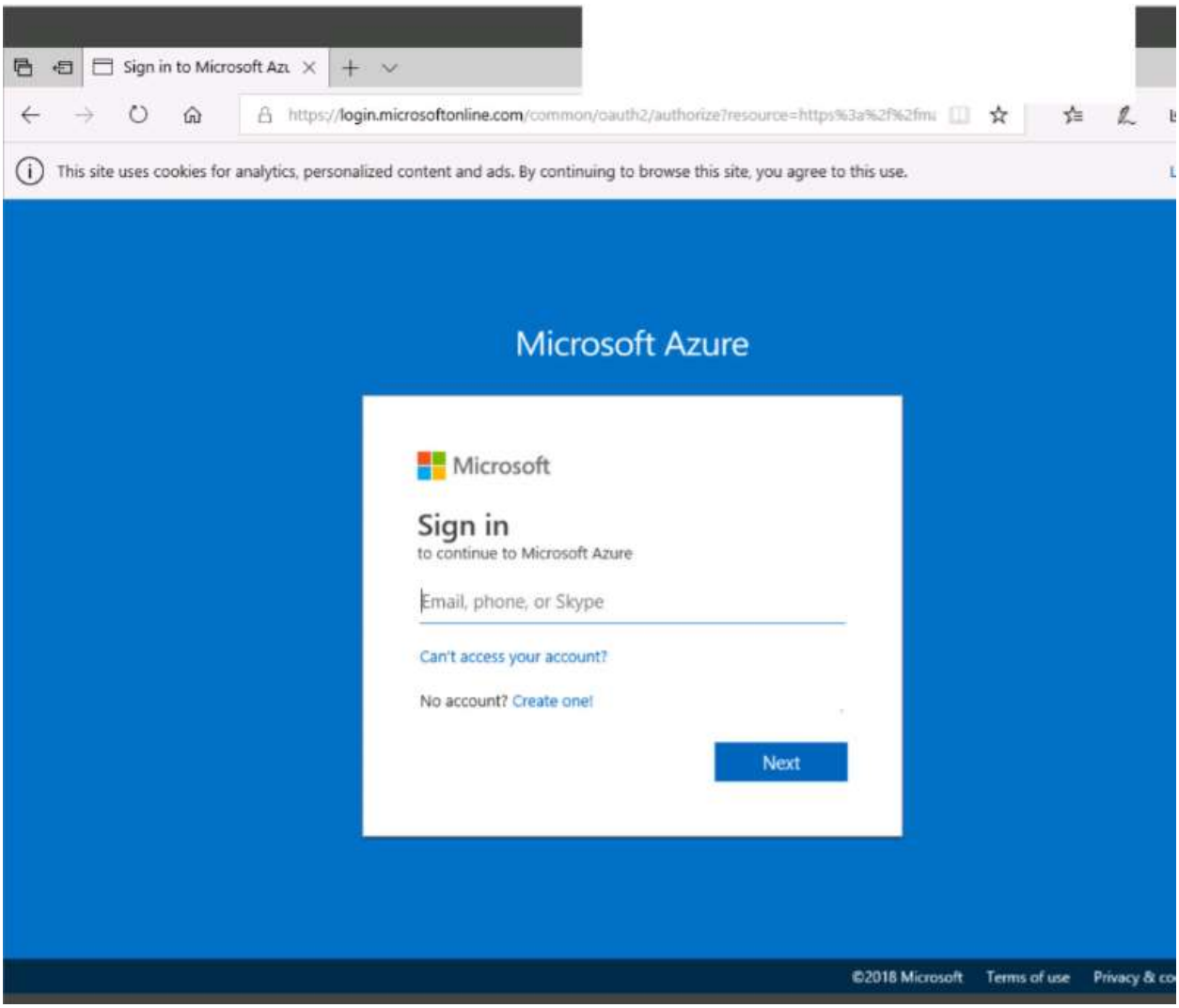


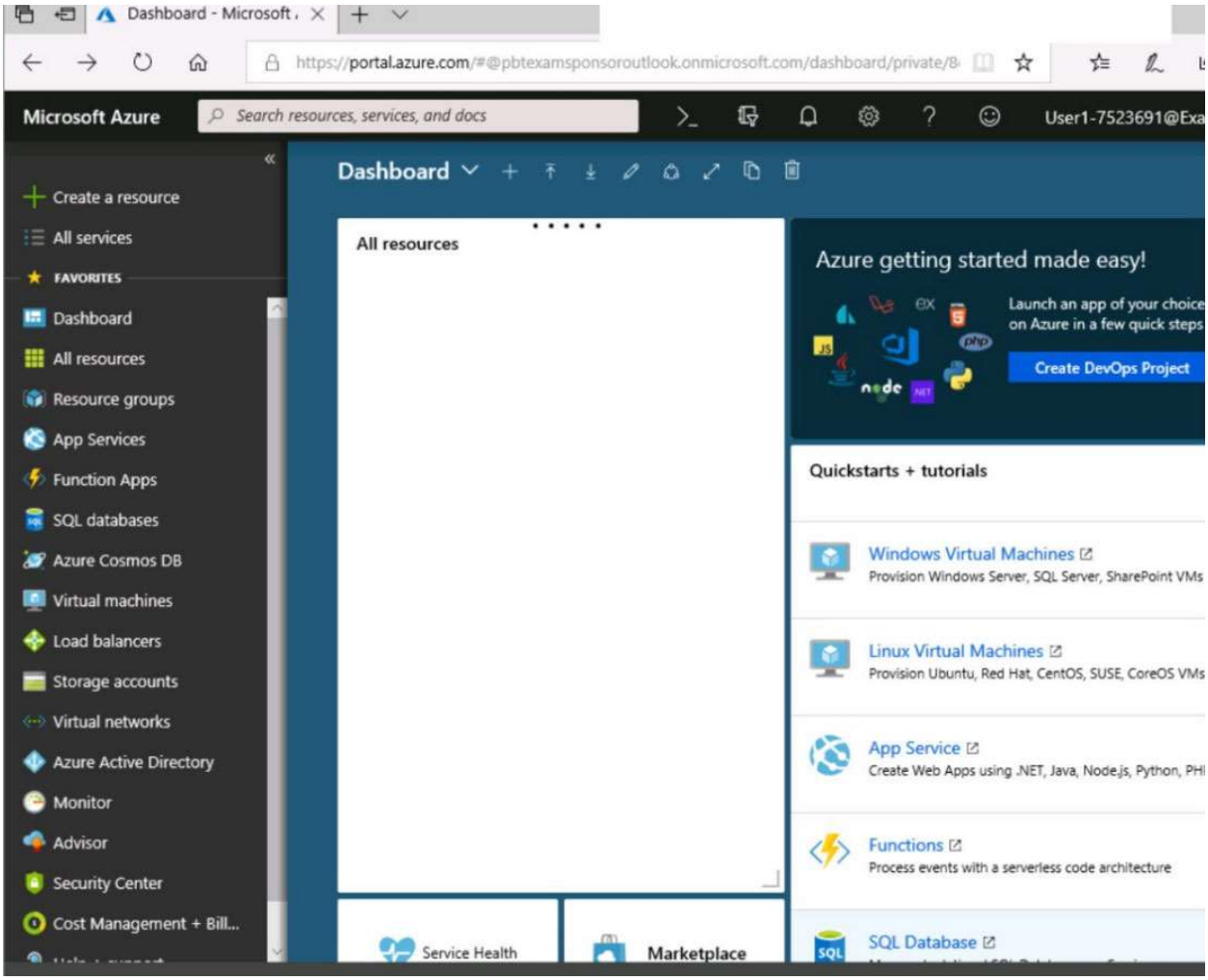
C7. On the Select Retention Policy page, set it to 90 days, and click Next.

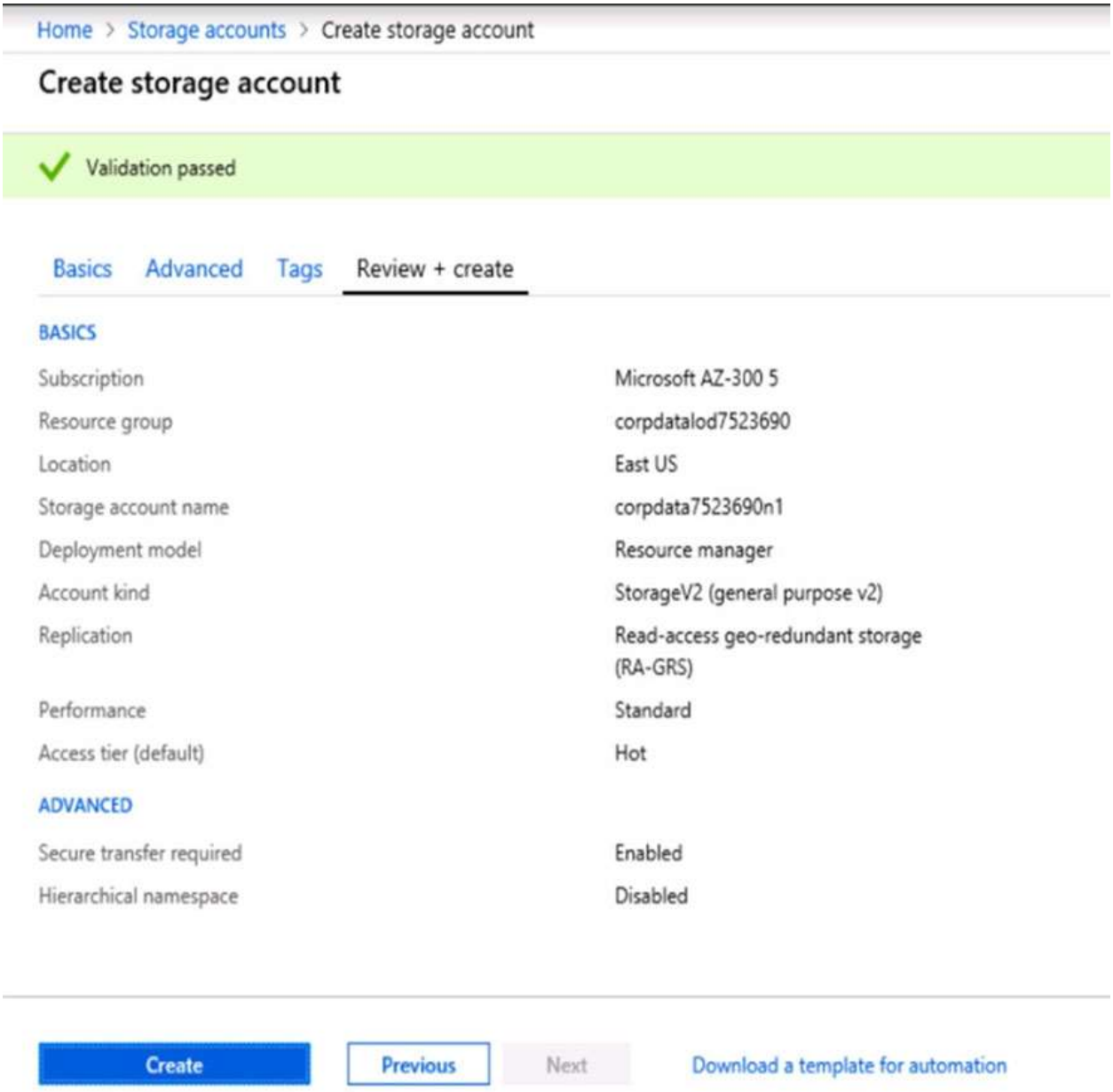


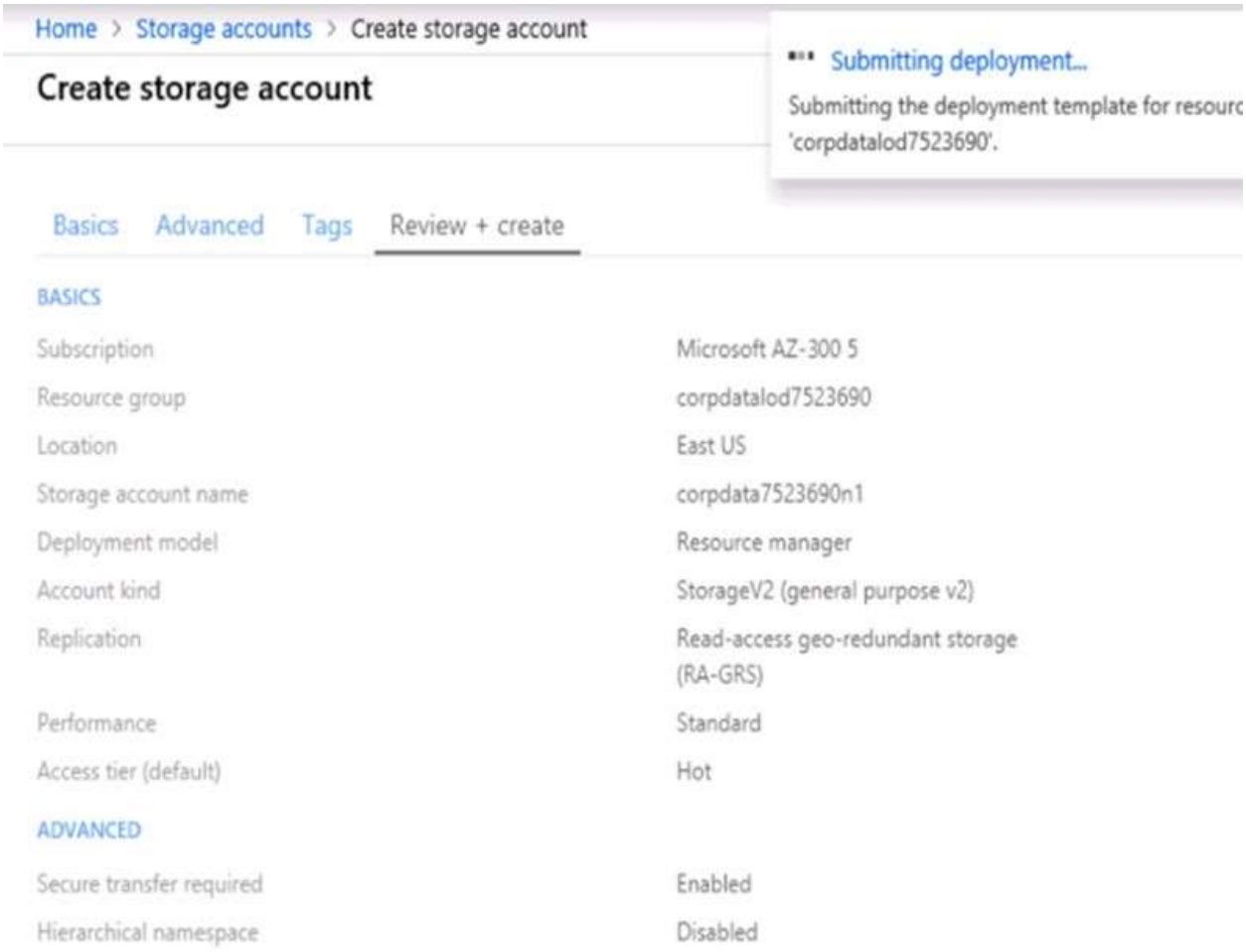
C8. Finish the Wizard.
References:
https://docs.microsoft.com/en-us/azure/backup/backup-configure-vault

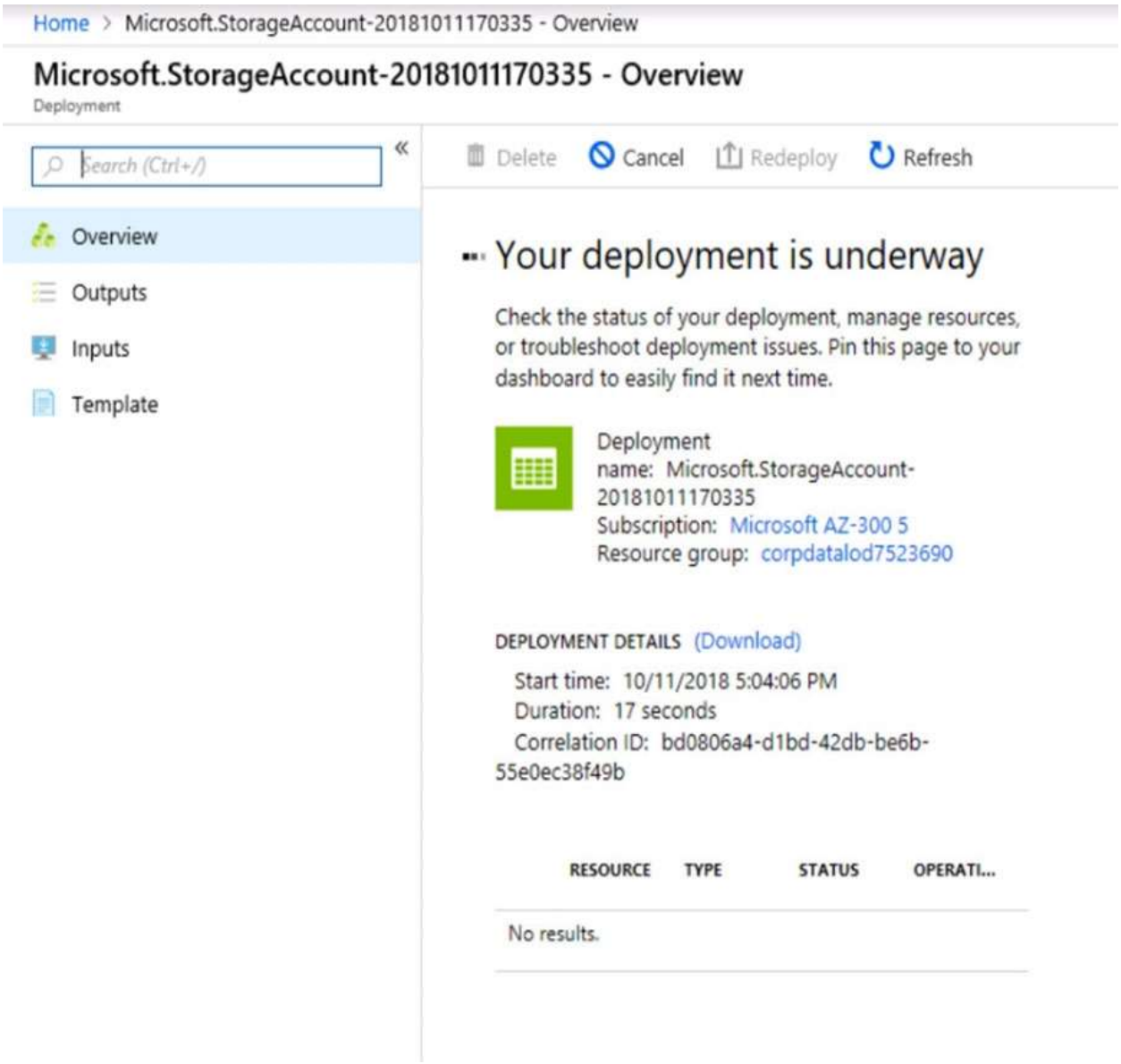
Question #37*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

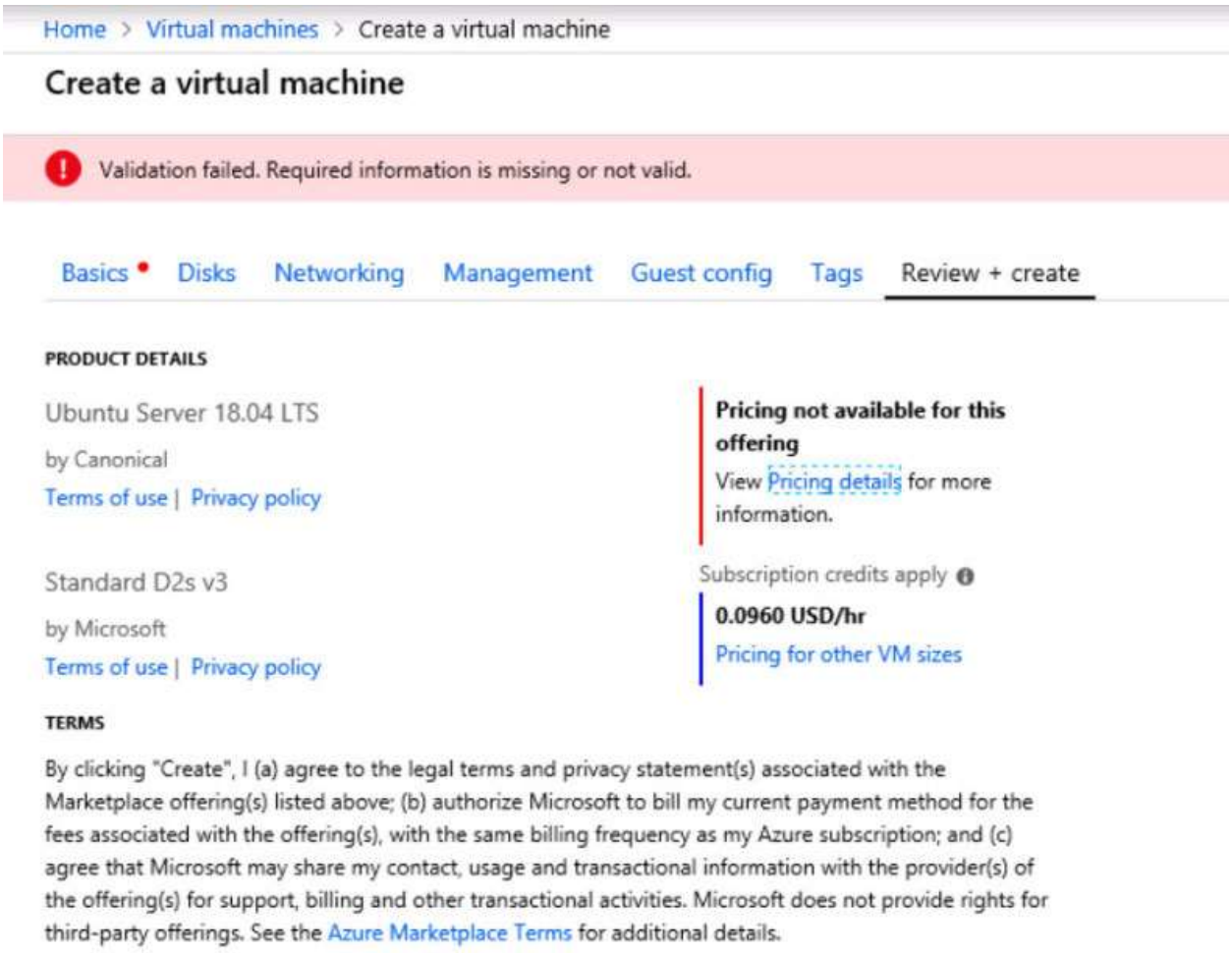












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Overview -
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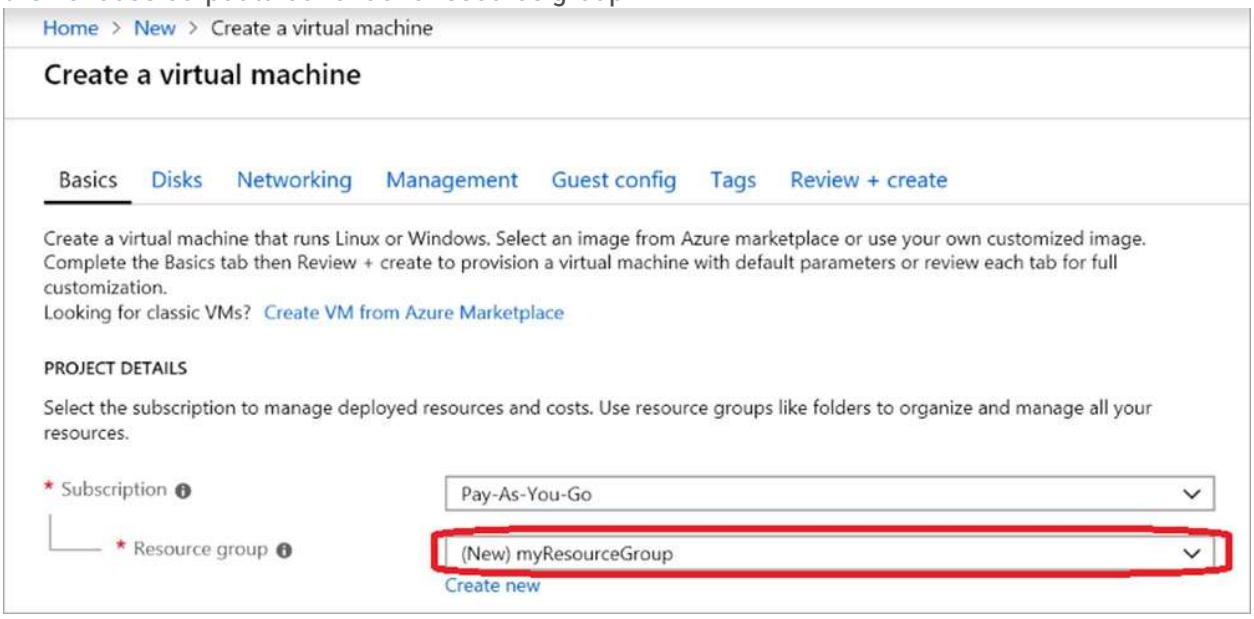
Please note that once you submit your work by clicking the Next button within a lab, you will NOT be able to return to the lab.

To start the lab -
You may start the lab by clicking the Next button.
You plan to connect several virtual machines to the VNET01-USEA2 virtual network.
In the corpdatalod7523690 resource group, you need to create a virtual machine that uses the Standard_B2ms size named Web01 that runs Windows Server
2016. Web01 must be added to an availability set.
What should you do from the Azure portal?

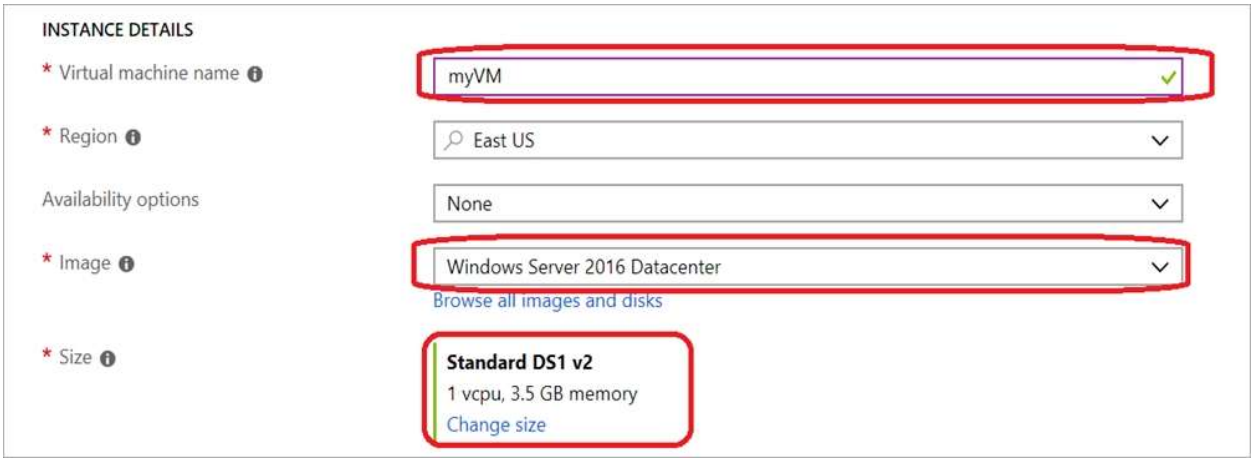
Hide Solution Discussion 10

Correct Answer: *See explanation below.*
Step 1: Choose Create a resource in the upper left-hand corner of the Azure portal.
Step 2: In the Basics tab, under Project details, make sure the correct subscription is selected and then choose corpdatalod7523690 resource group



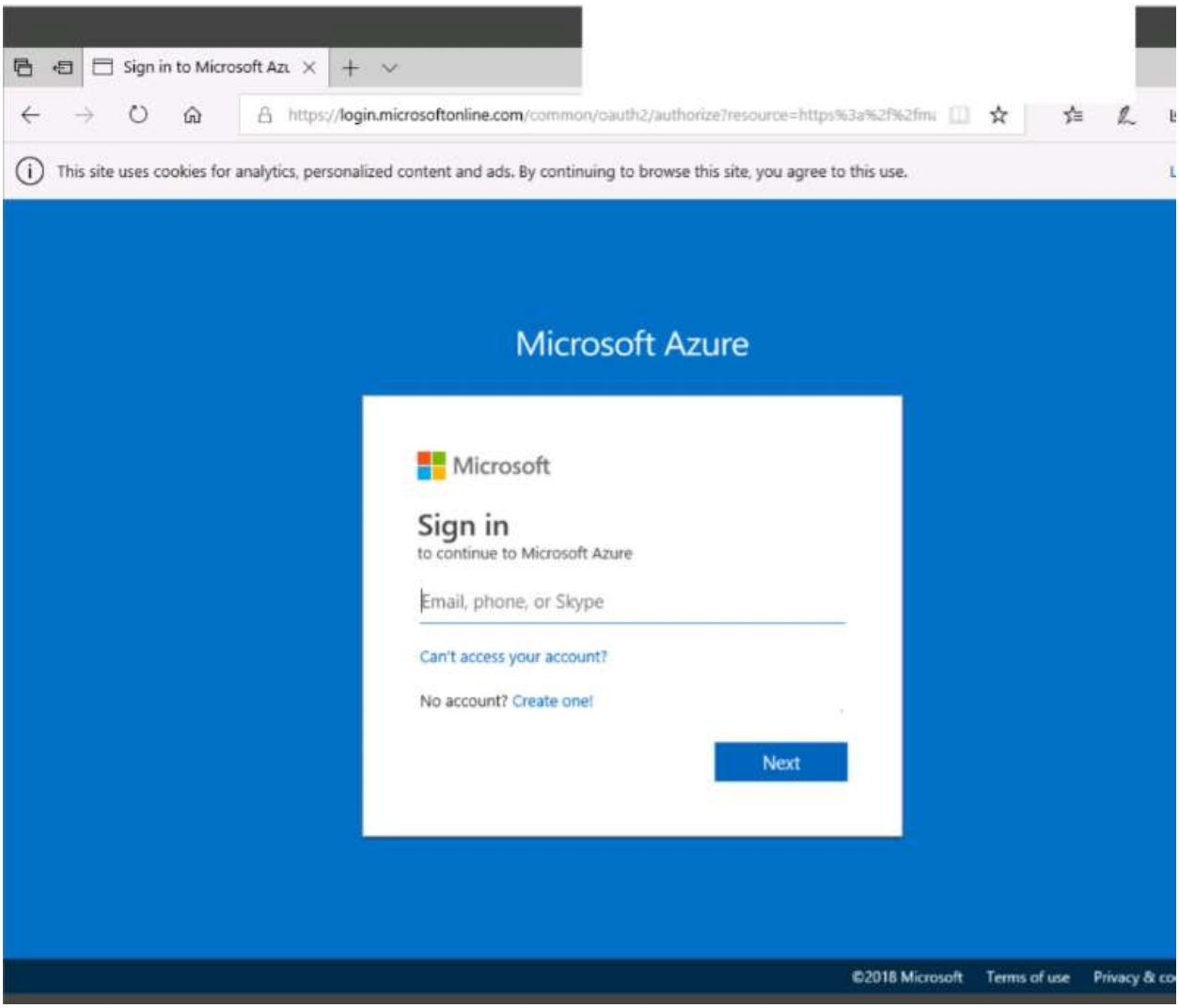
Step 3: Under Instance details type/select:

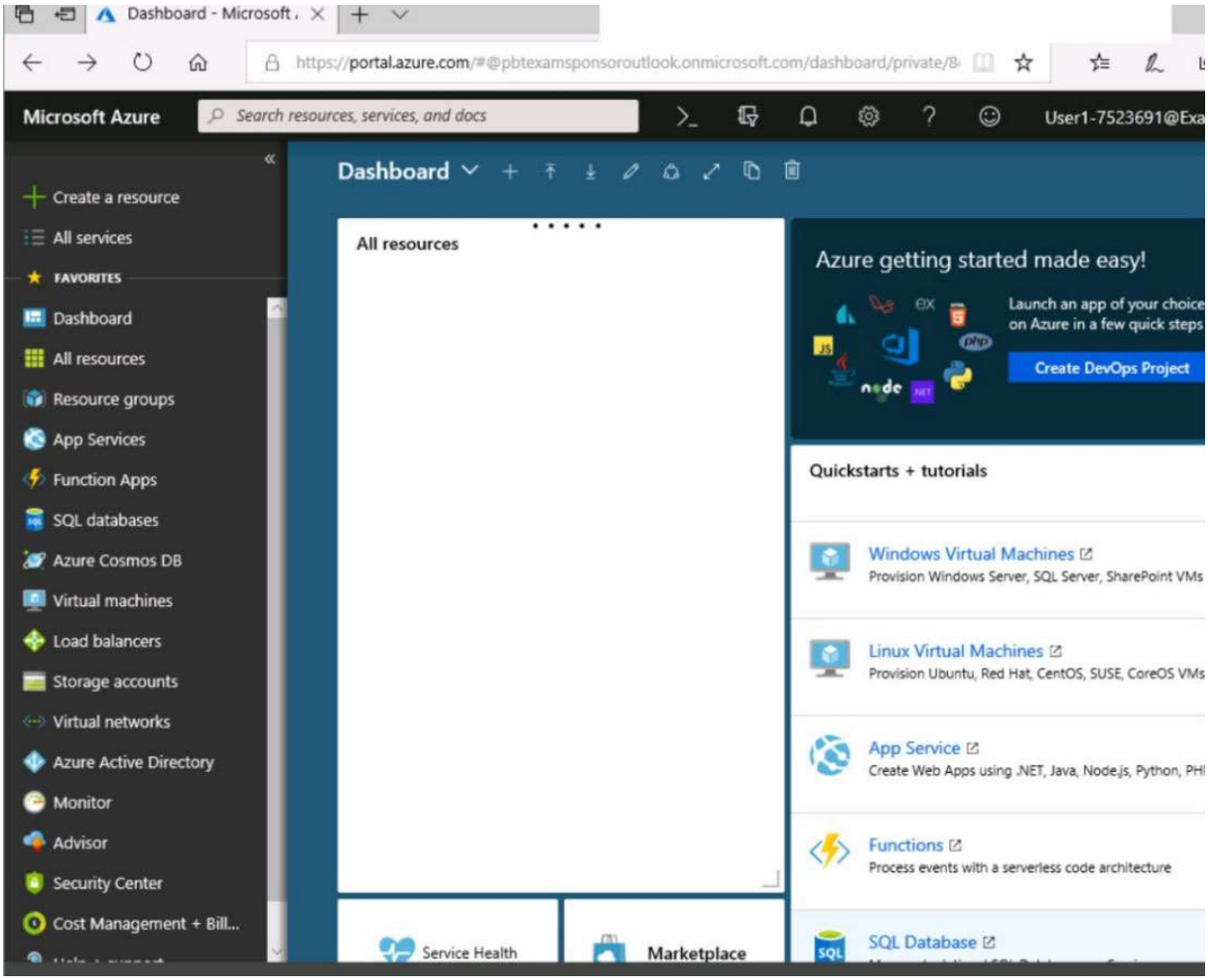
Virtual machine name: Web01 -
Image: Windows Server 2016
Size: Standard_B2ms size
Leave the other defaults.

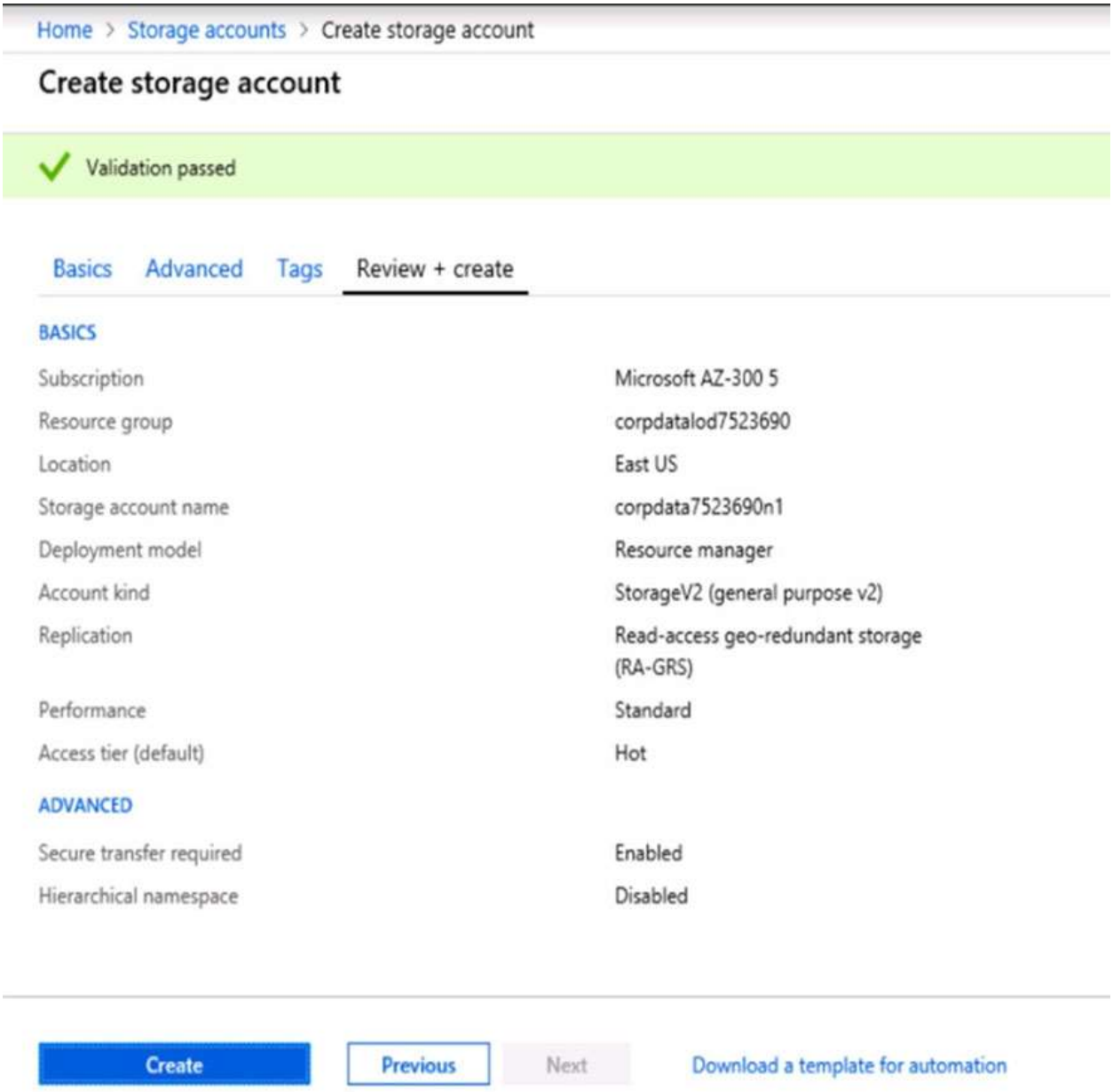


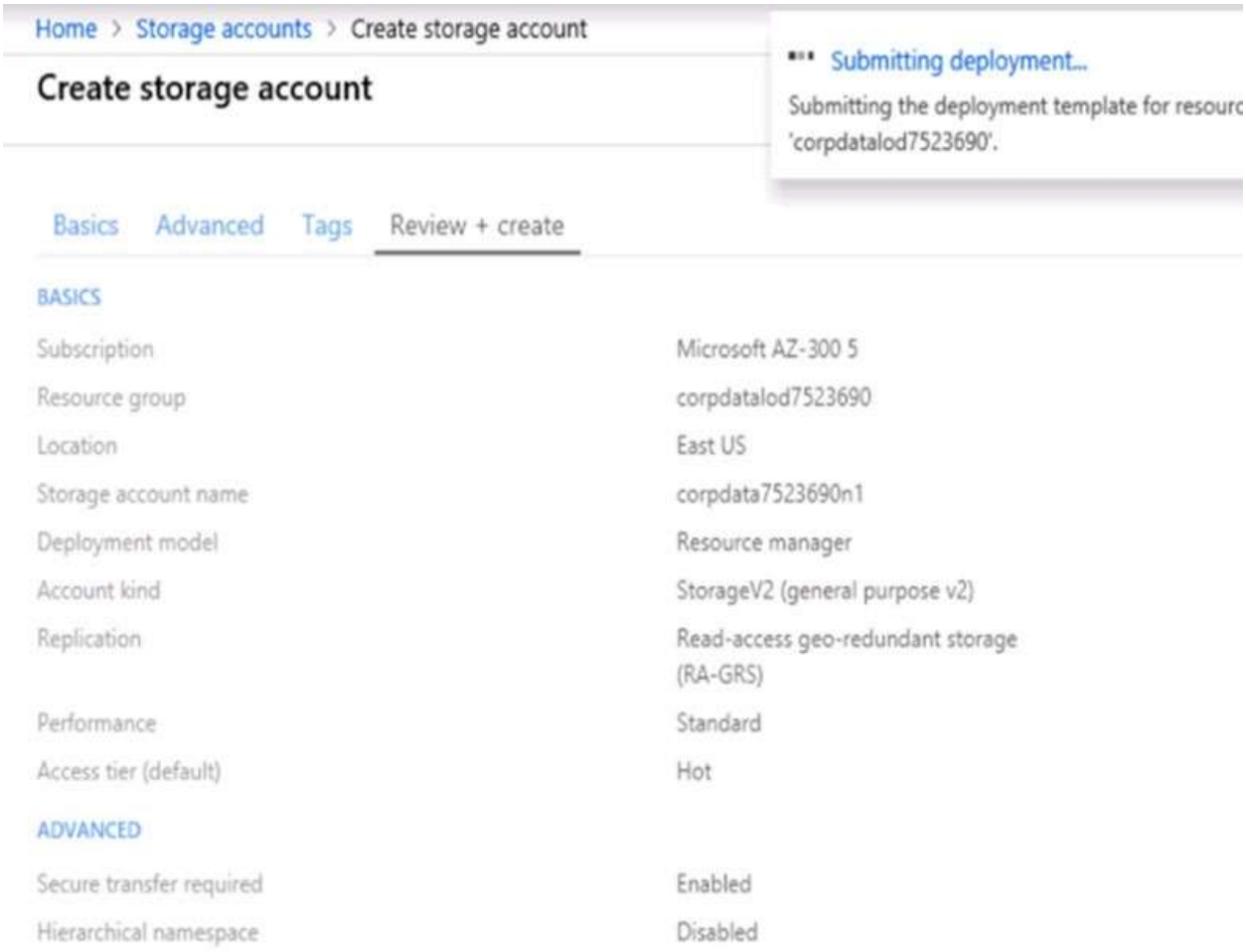
Step 4: Finish the Wizard

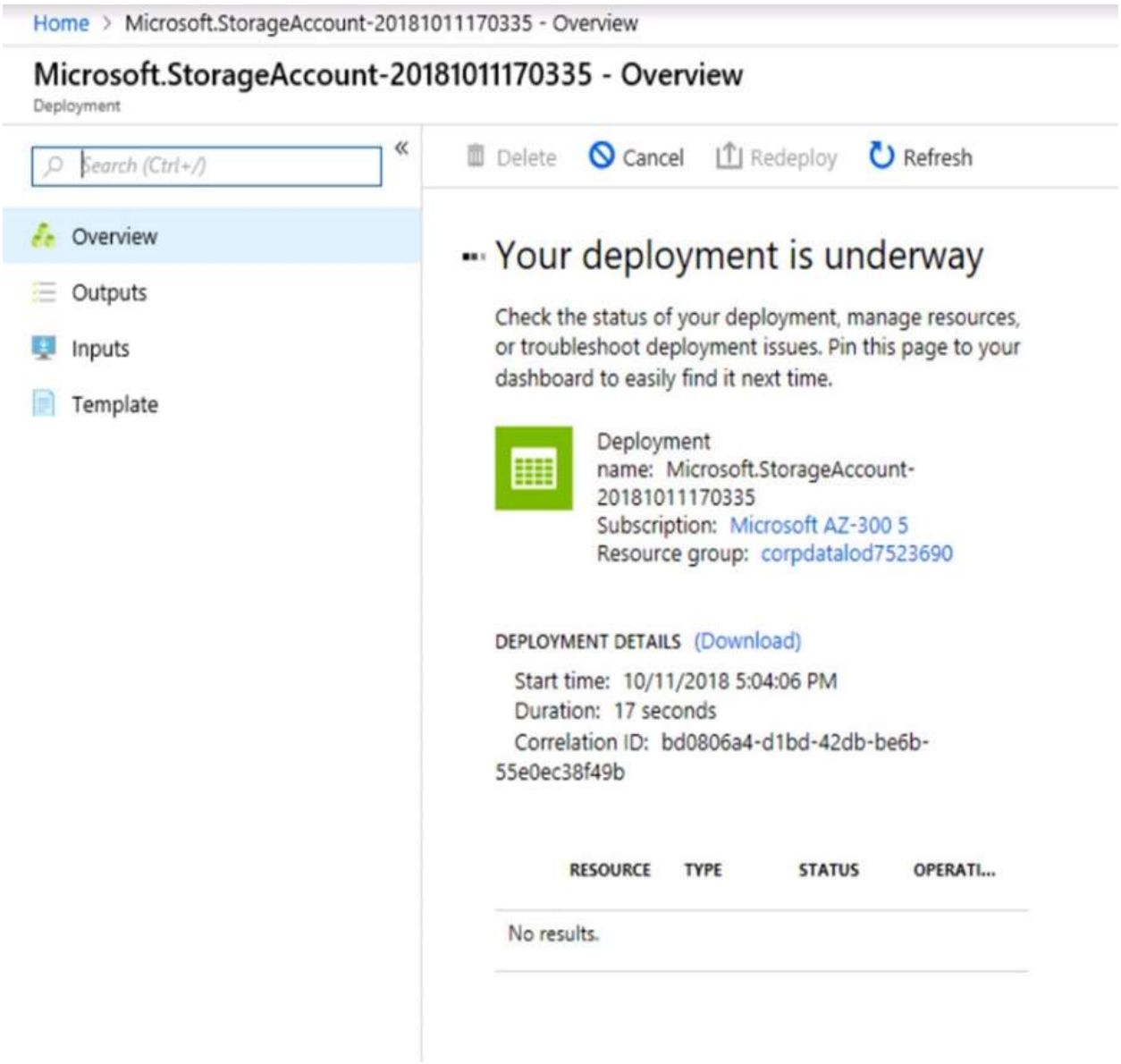
Question #38*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

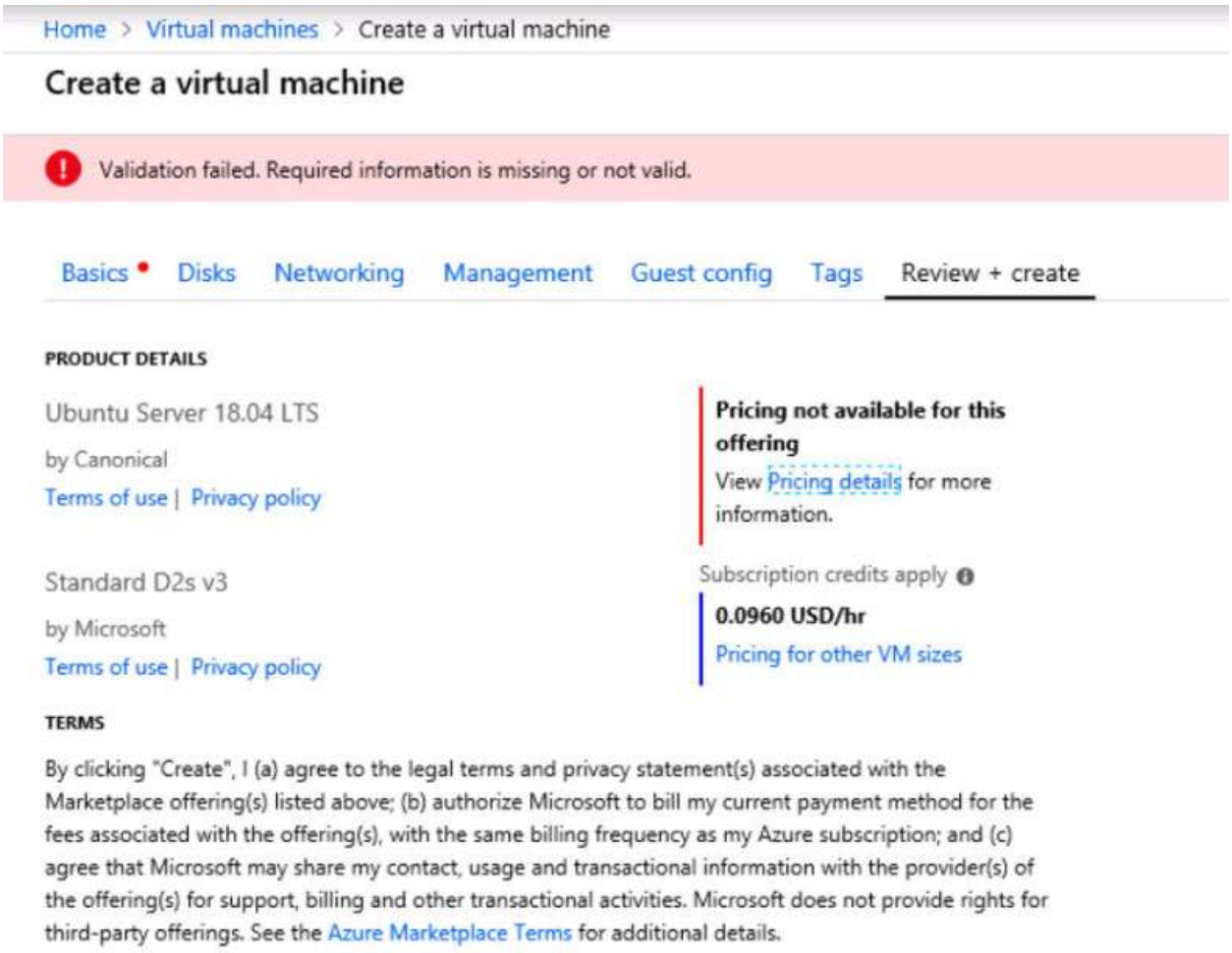












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Overview -
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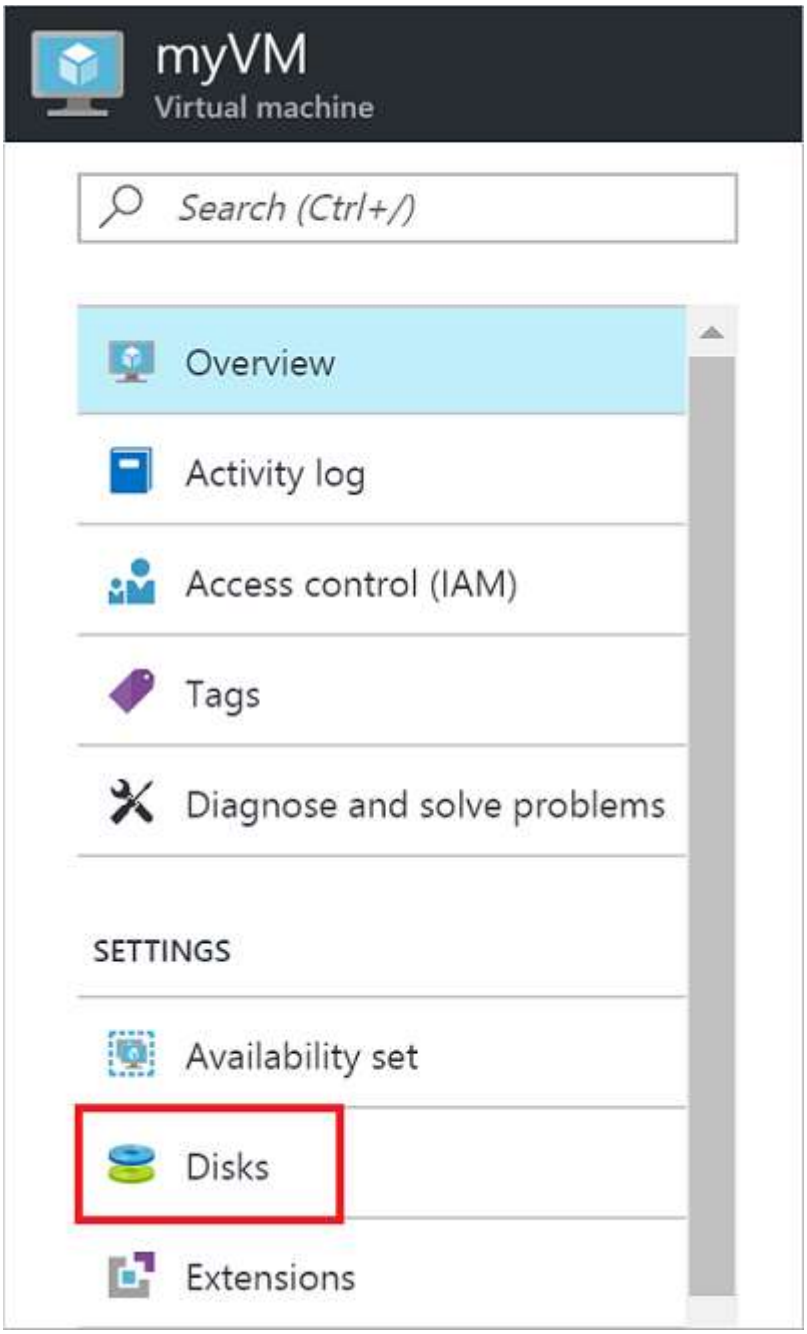
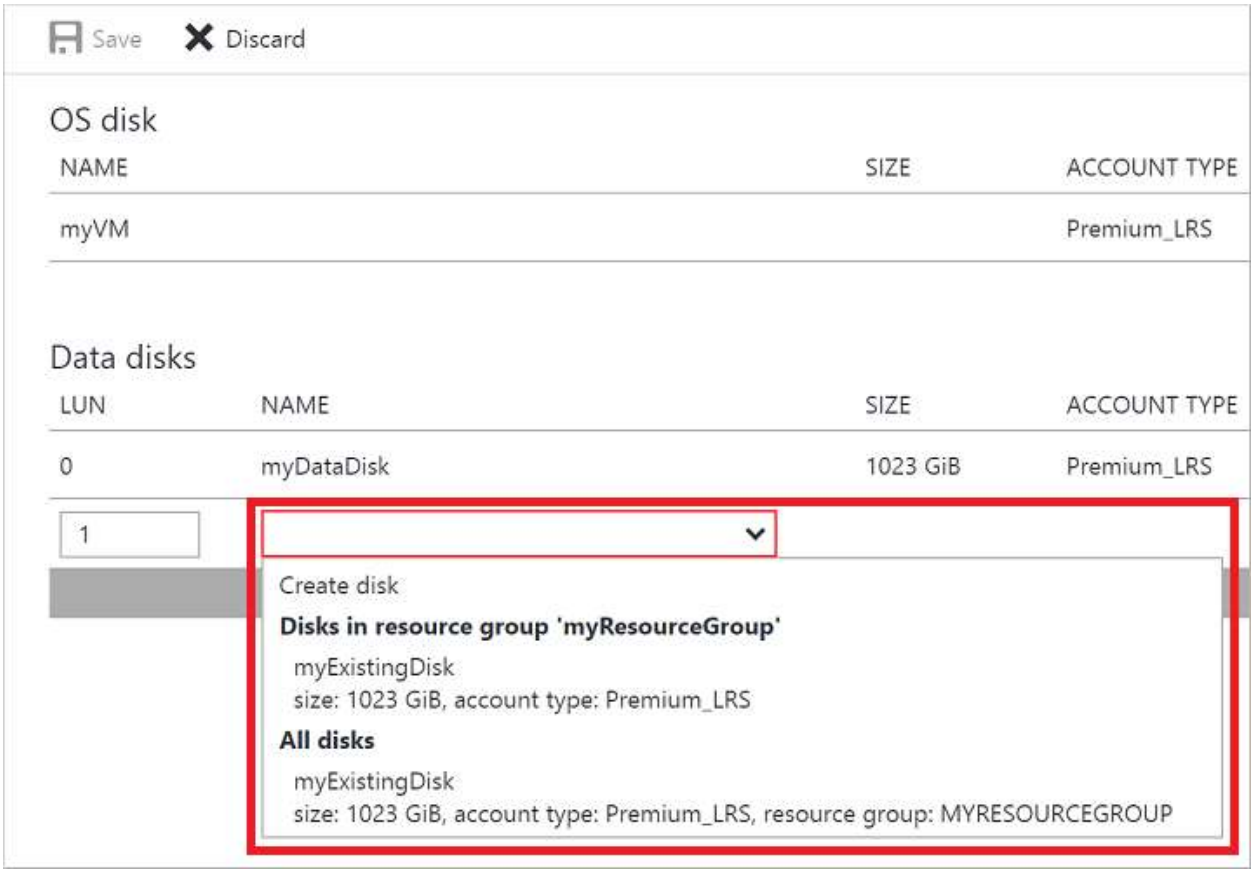
To start the lab -
You may start the lab by clicking the Next button.
You recently created a virtual machine named Web01.
You need to attach a new 80-GB standard data disk named Web01-Disk1 to Web01.
What should you do from the Azure portal?

Hide Solution | Discussion 12

Correct Answer: *See explanation below.*
Add a data disk -
Step 1: In the Azure portal, from the menu on the left, select Virtual machines.
Step 2: Select the Web01 virtual machine from the list.
Step 3: On the Virtual machine page, , in Essentials, select Disks.



Step 4: On the Disks page, select the Web01-Disk1 from the list of existing disks.
Step 5: In the Disks pane, click + Add data disk.
Step 6: Click the drop-down menu for Name to view a list of existing managed disks accessible to your Azure subscription. Select the managed disk Web01-Disk1 to attach:



References:
https://docs.microsoft.com/en-us/azure/virtual-machines/linux/attach-disk-portal

Question #39*Topic 5*
SIMULATION -
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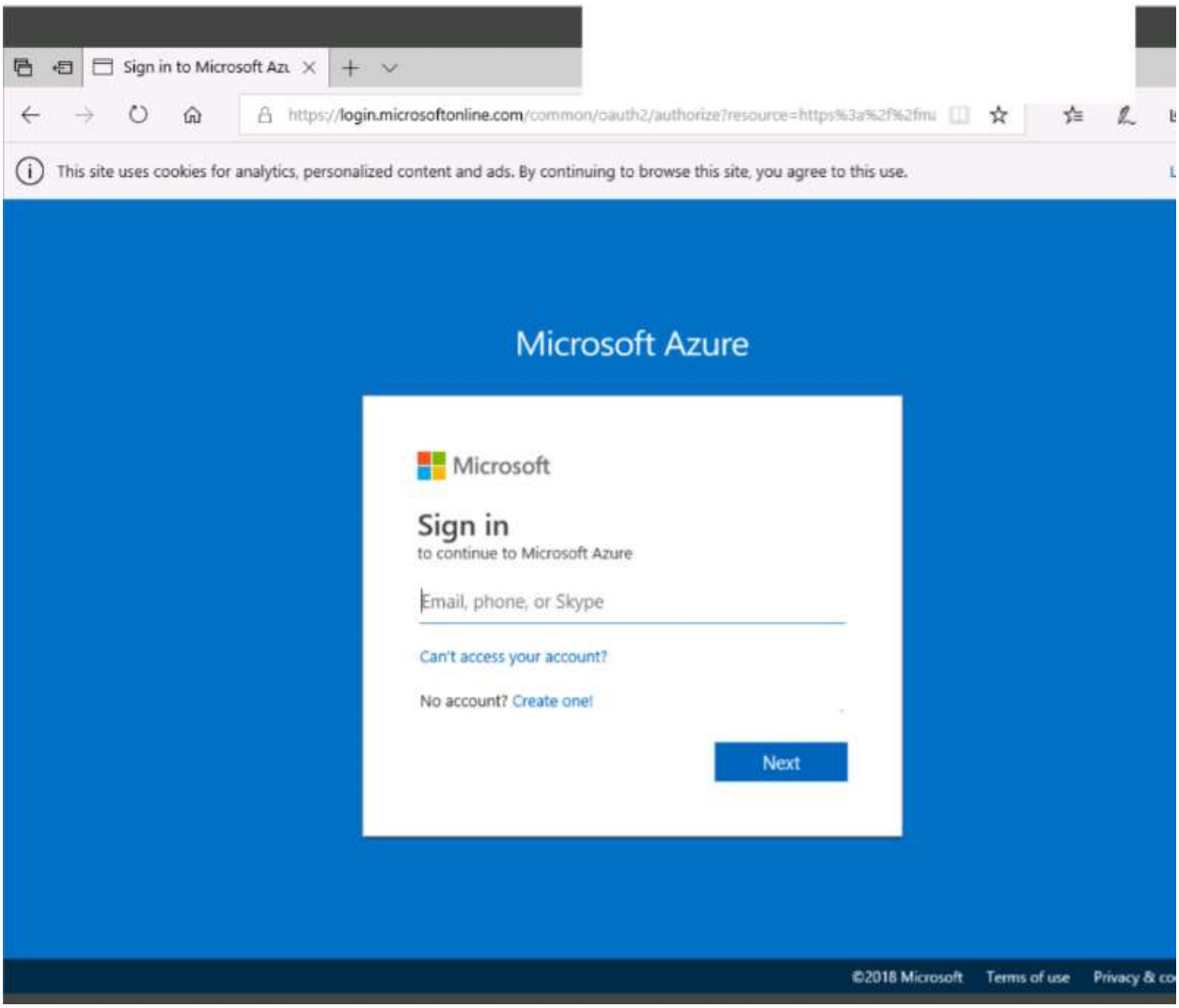

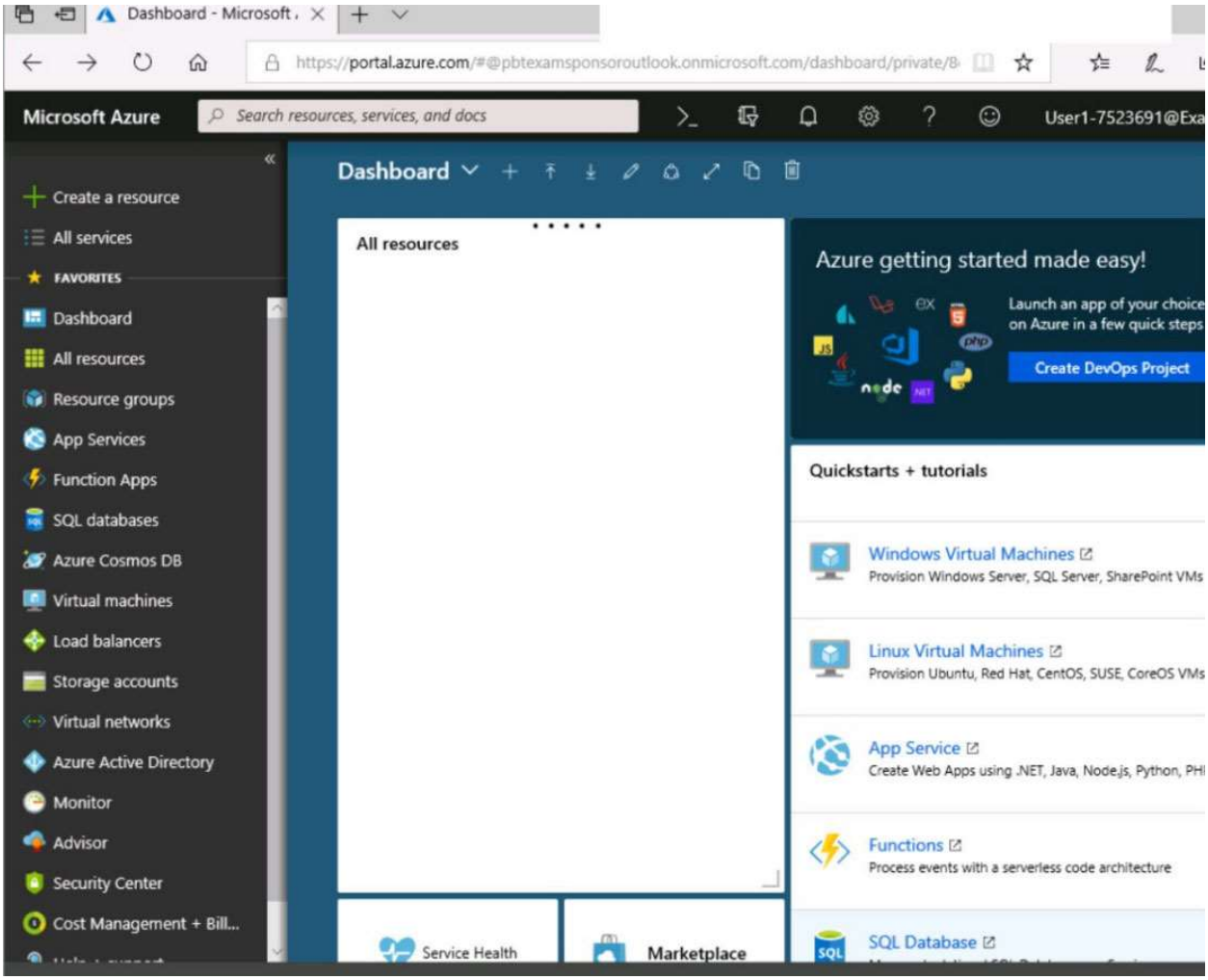

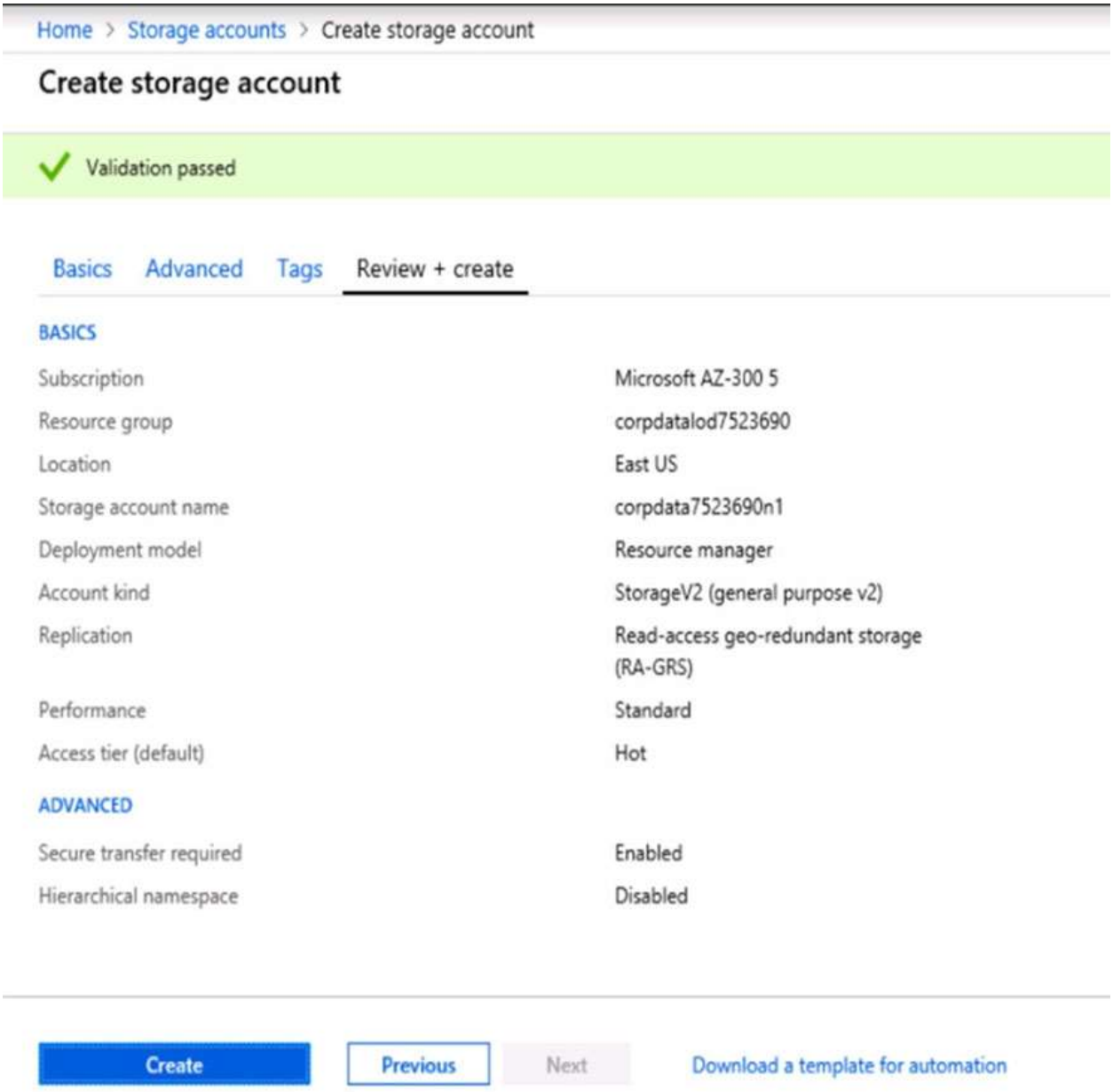

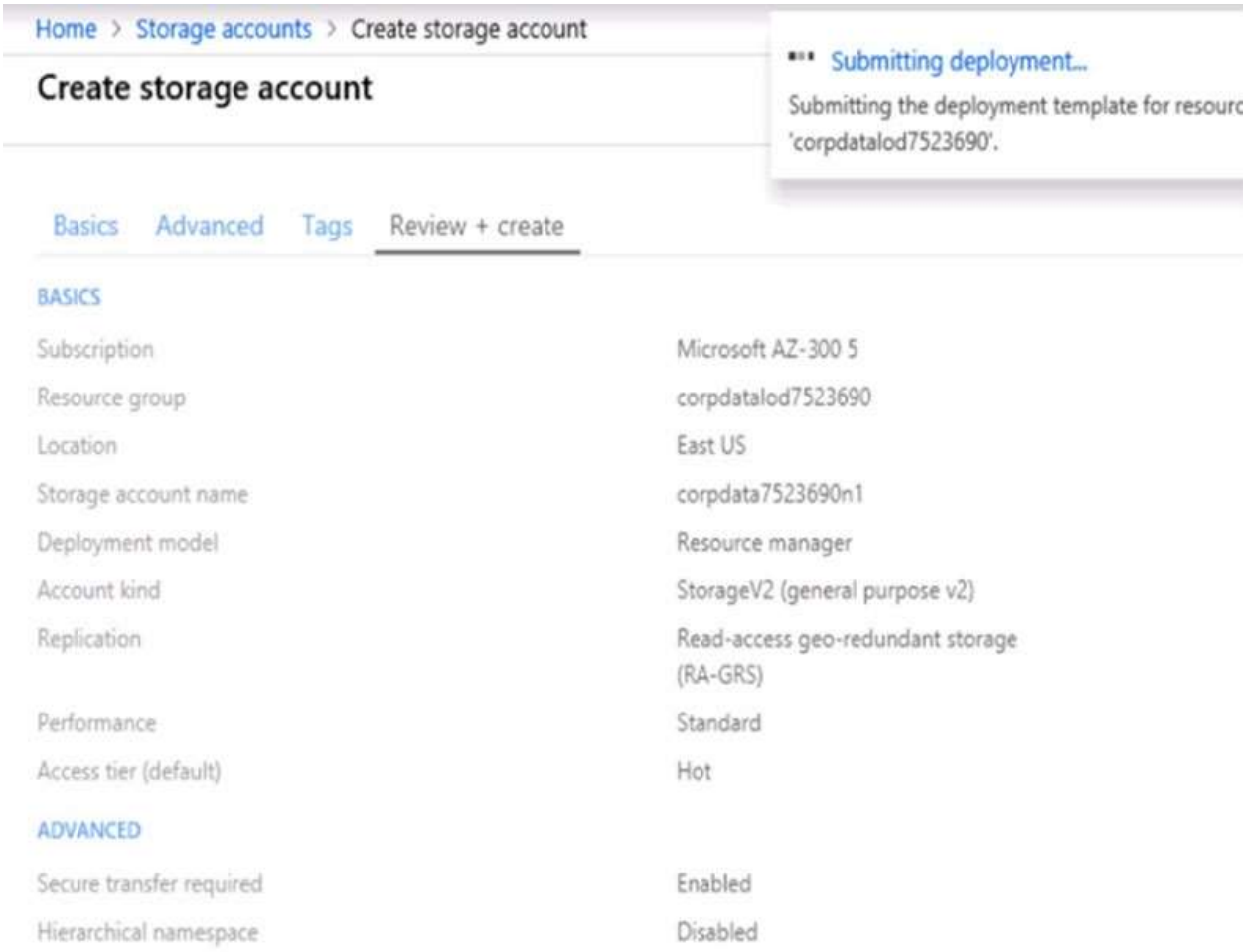

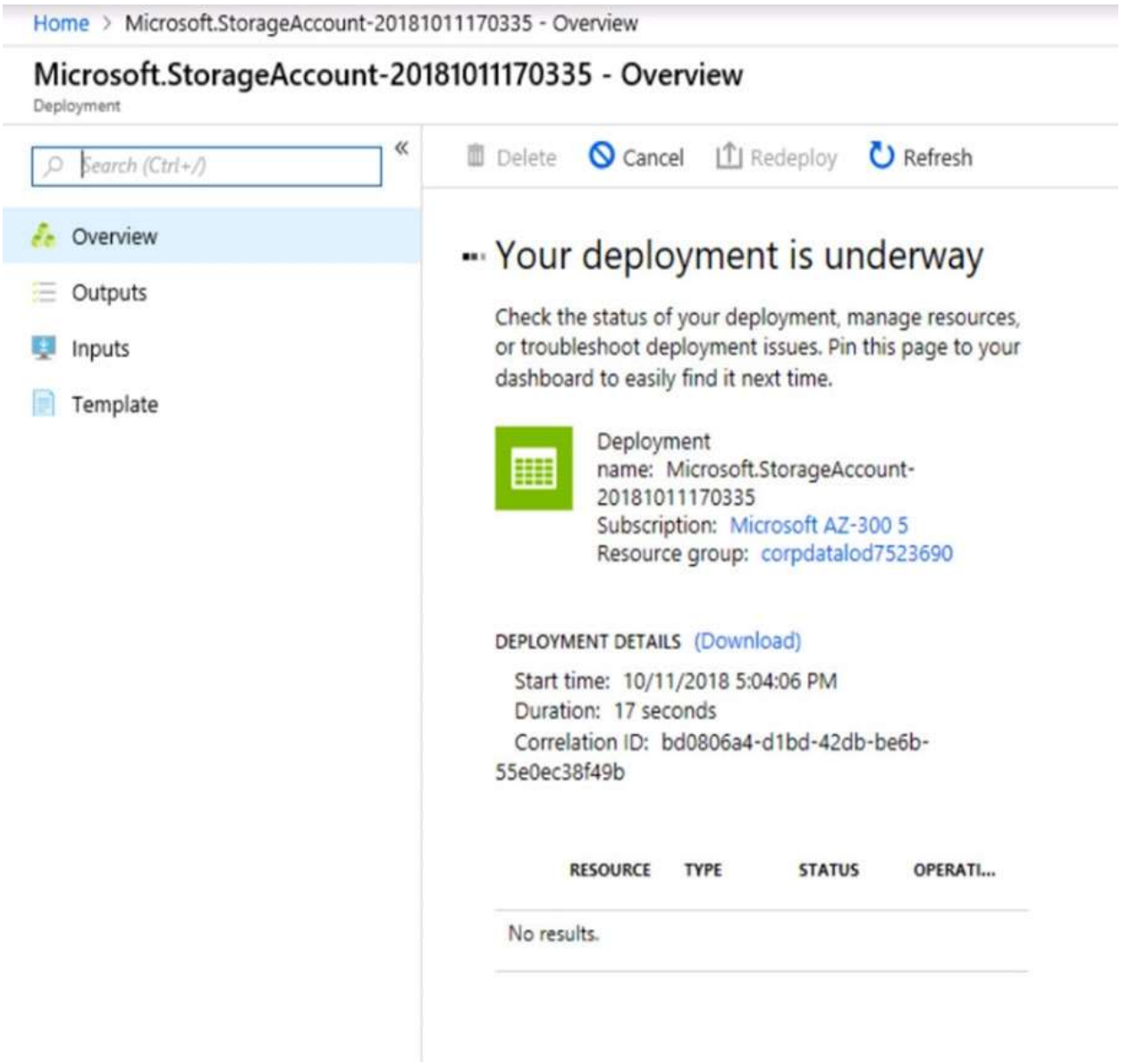

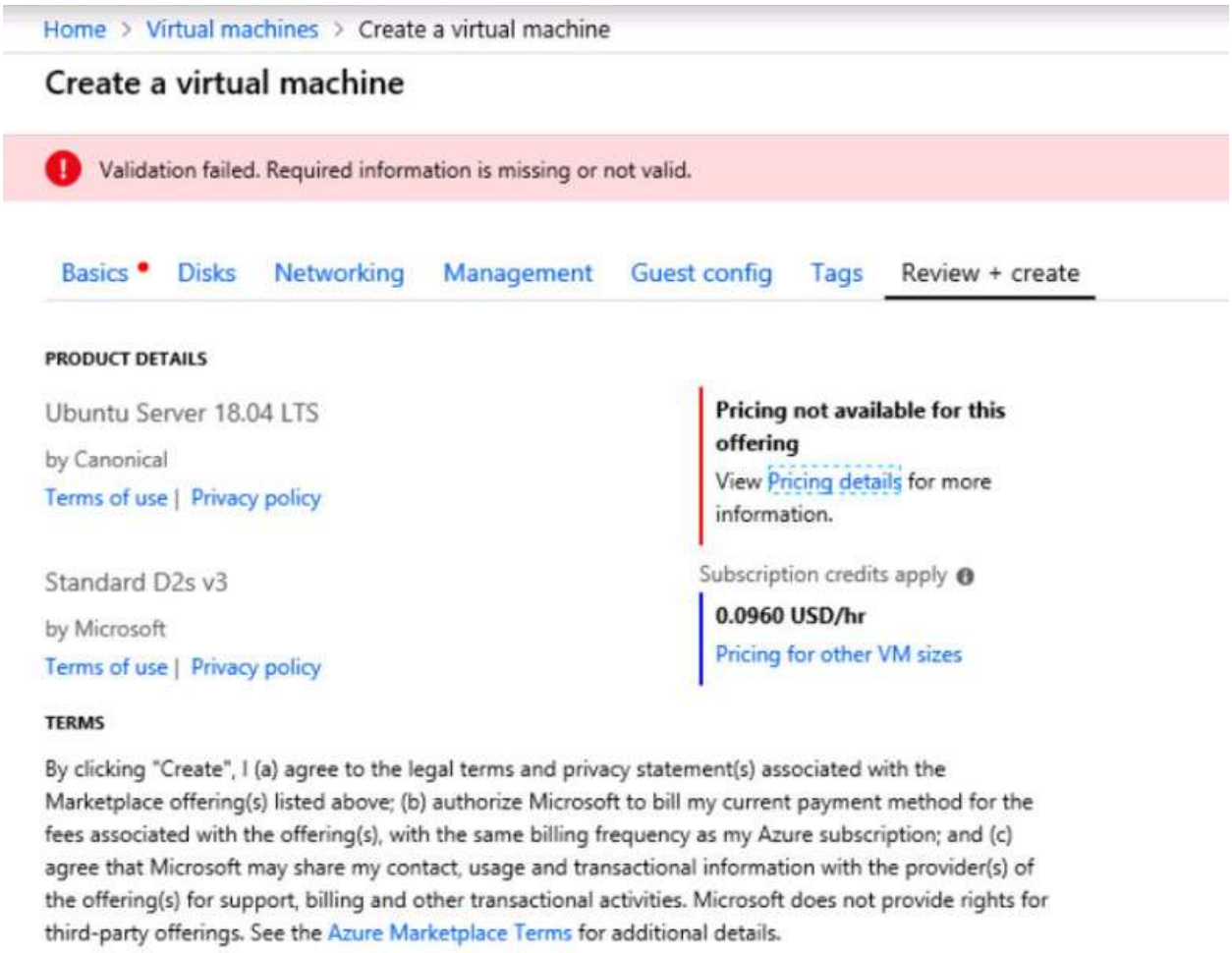

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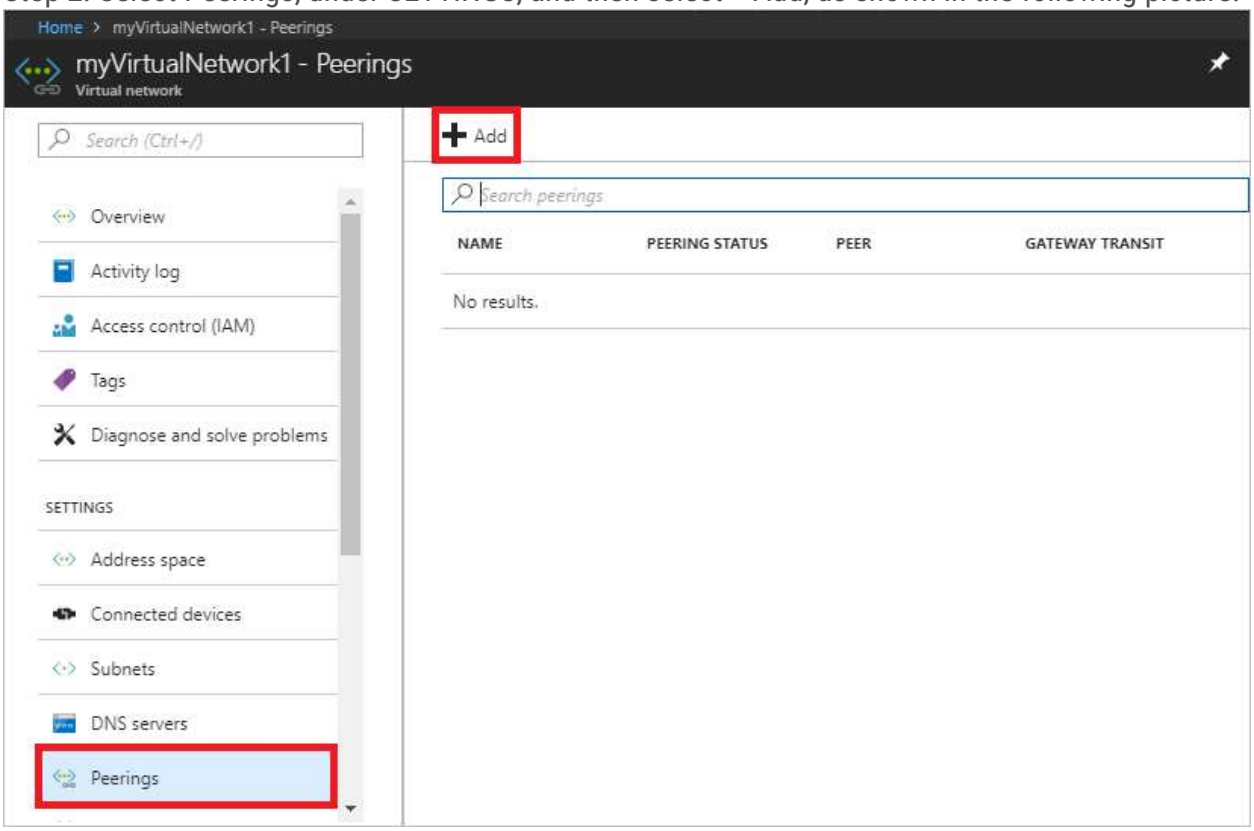
Please note that once you submit your work by clicking the Next button within a lab, you will NOT be able to return to the lab.

To start the lab -
You may start the lab by clicking the Next button.
You plan to allow connections between the VNET01-USEA2 and VNET01-USWE2 virtual networks.
You need to ensure that virtual machines can communicate across both virtual networks by using their private IP address.
The solution must NOT require any virtual network gateways.
What should you do from the Azure portal?

Hide Solution Discussion 6

Correct Answer: *See explanation below.*
Virtual network peering enables you to seamlessly connect two Azure virtual networks. Once peered, the virtual networks appear as one, for connectivity purposes.

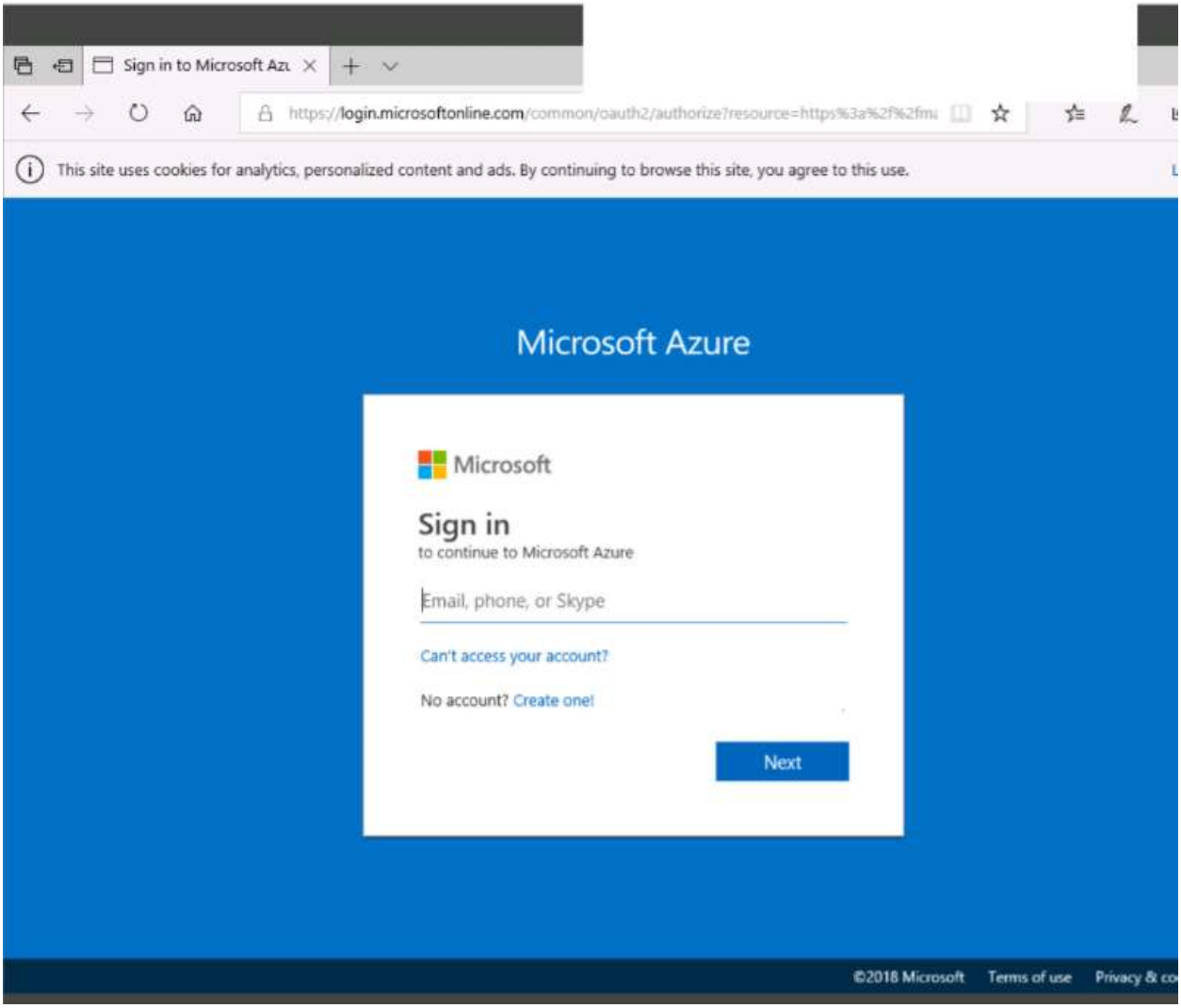
Peer virtual networks -
Step 1. In the Search box at the top of the Azure portal, begin typing VNET01-USEA2. When VNET01-USEA2 appears in the search results, select it.
Step 2. Select Peerings, under SETTINGS, and then select + Add, as shown in the following picture:

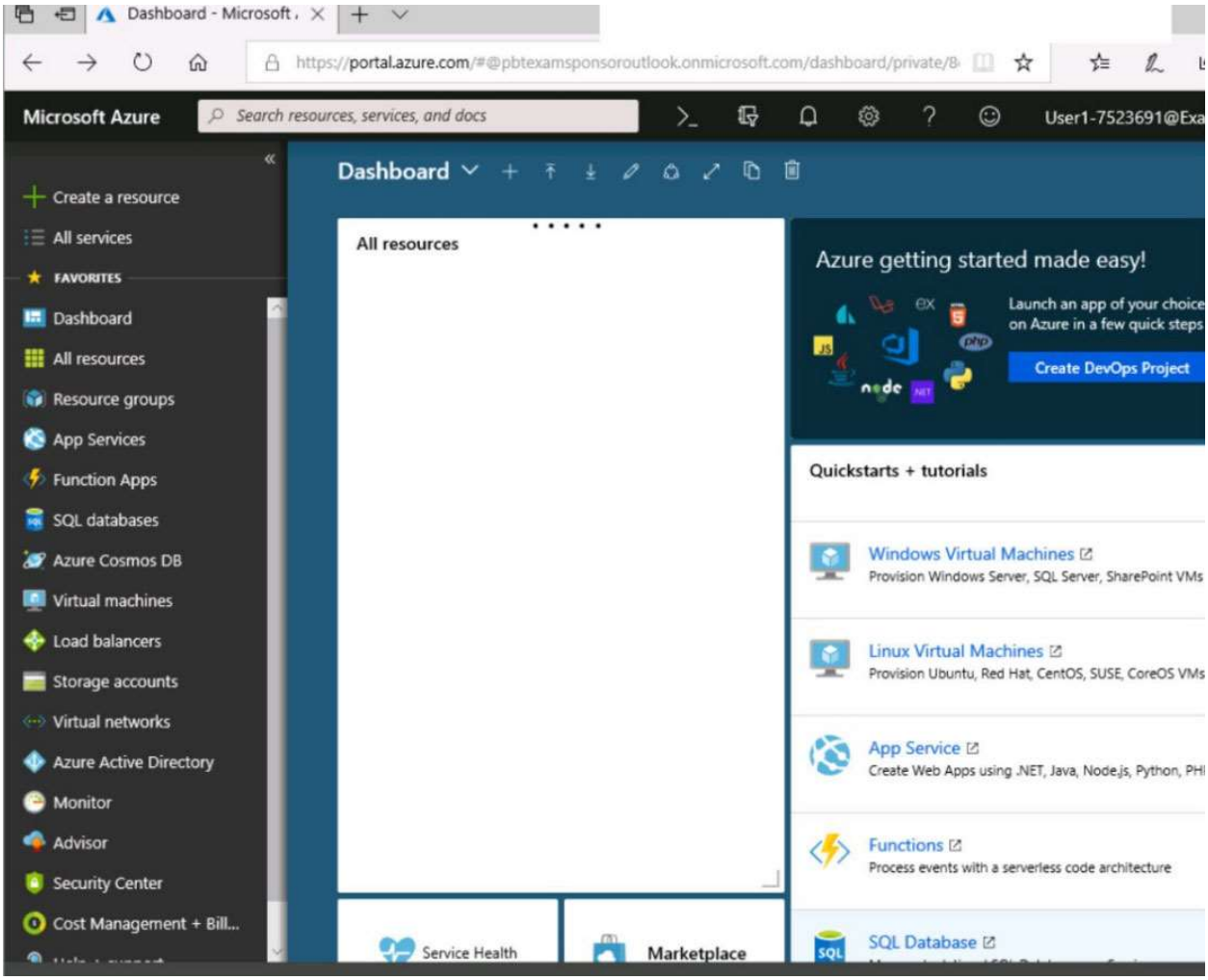


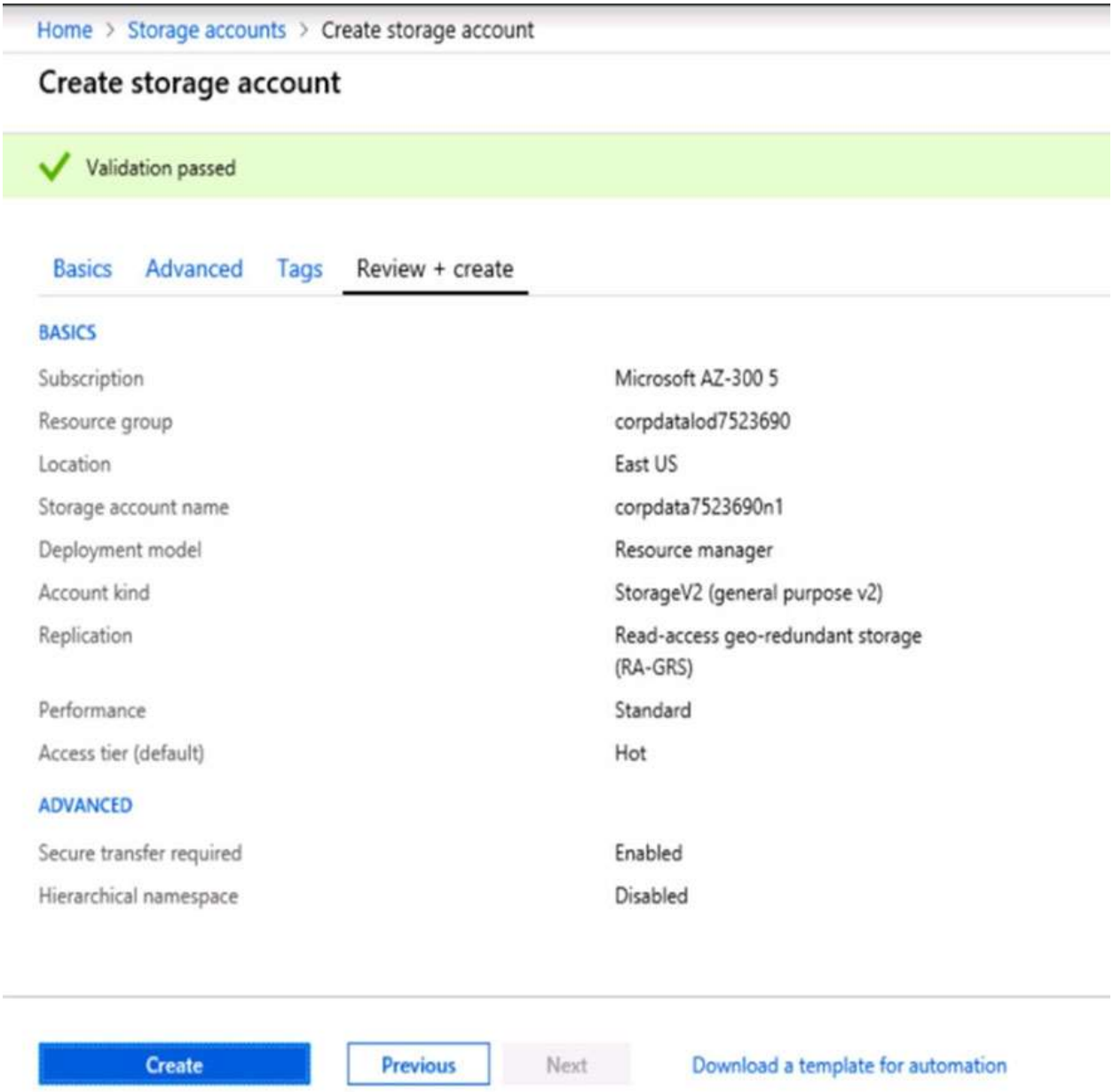
Step 3. Enter, or select, the following information, accept the defaults for the remaining settings, and then select OK.
Name: myVirtualNetwork1-myVirtualNetwork2 (for example)
Subscription: elect your subscription.
Virtual network: VNET01-USWE2 - To select the VNET01-USWE2 virtual network, select Virtual network, then select VNET01-USWE2. You can select a virtual network in the same region or in a

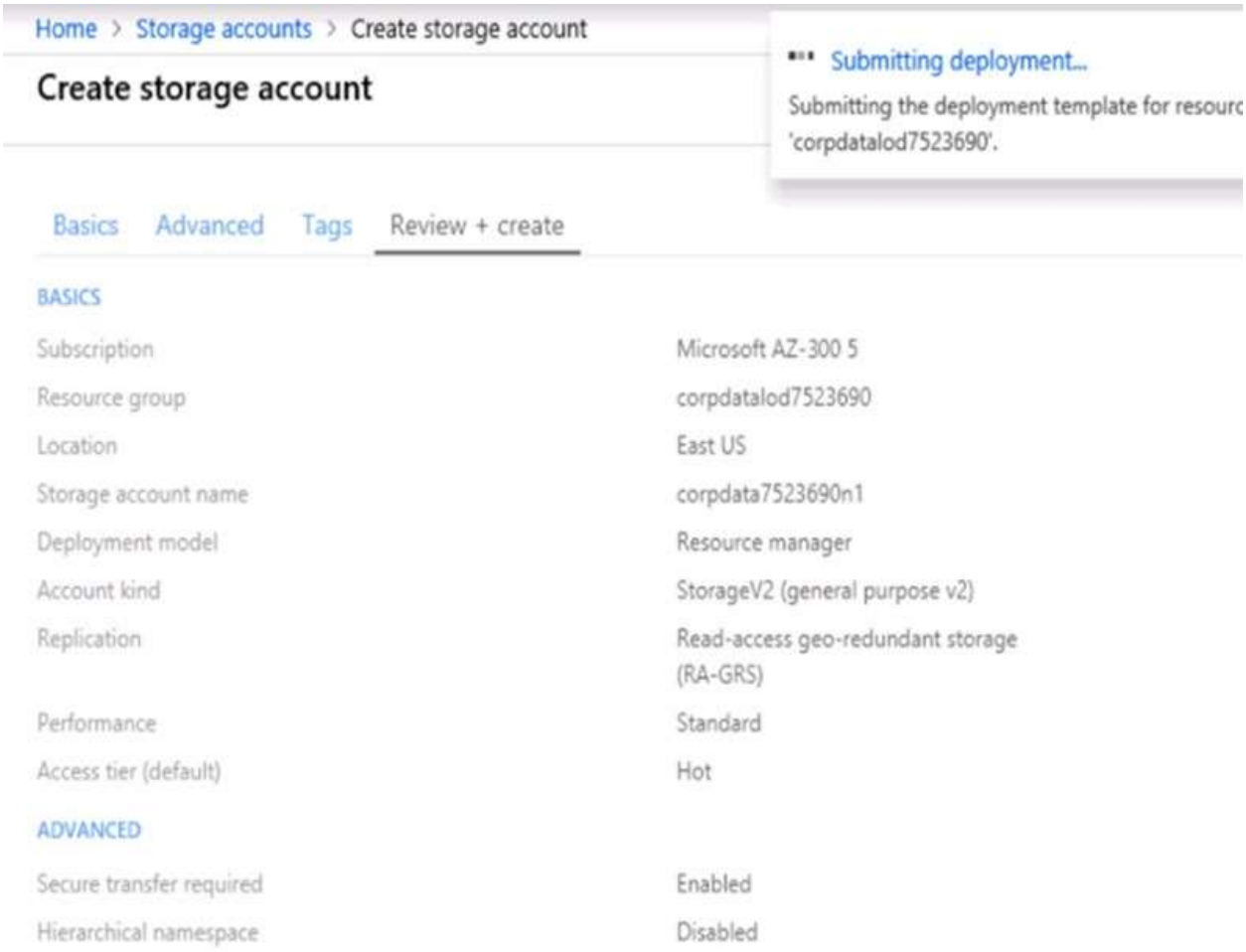
different region.
Now we need to repeat steps 1-3 for the other network VNET01-USWE2:
Step 4. In the Search box at the top of the Azure portal, begin typing VNET01- USEA2. When VNET01- USEA2 appears in the search results, select it.
Step 5. Select Peerings, under SETTINGS, and then select + Add.
References:
https://docs.microsoft.com/en-us/azure/virtual-network/tutorial-connect-virtual-networks-portal

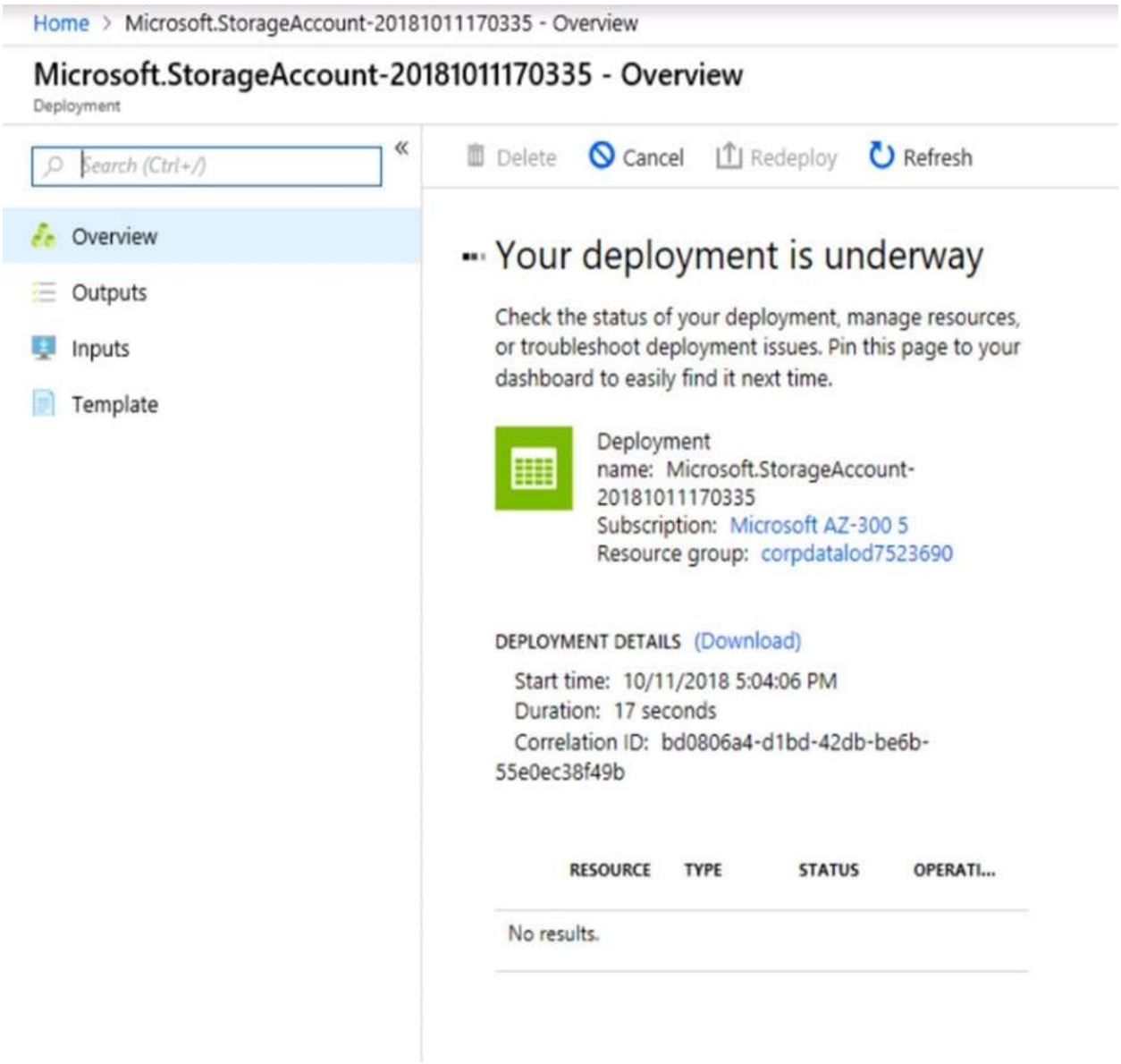
Question #40*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

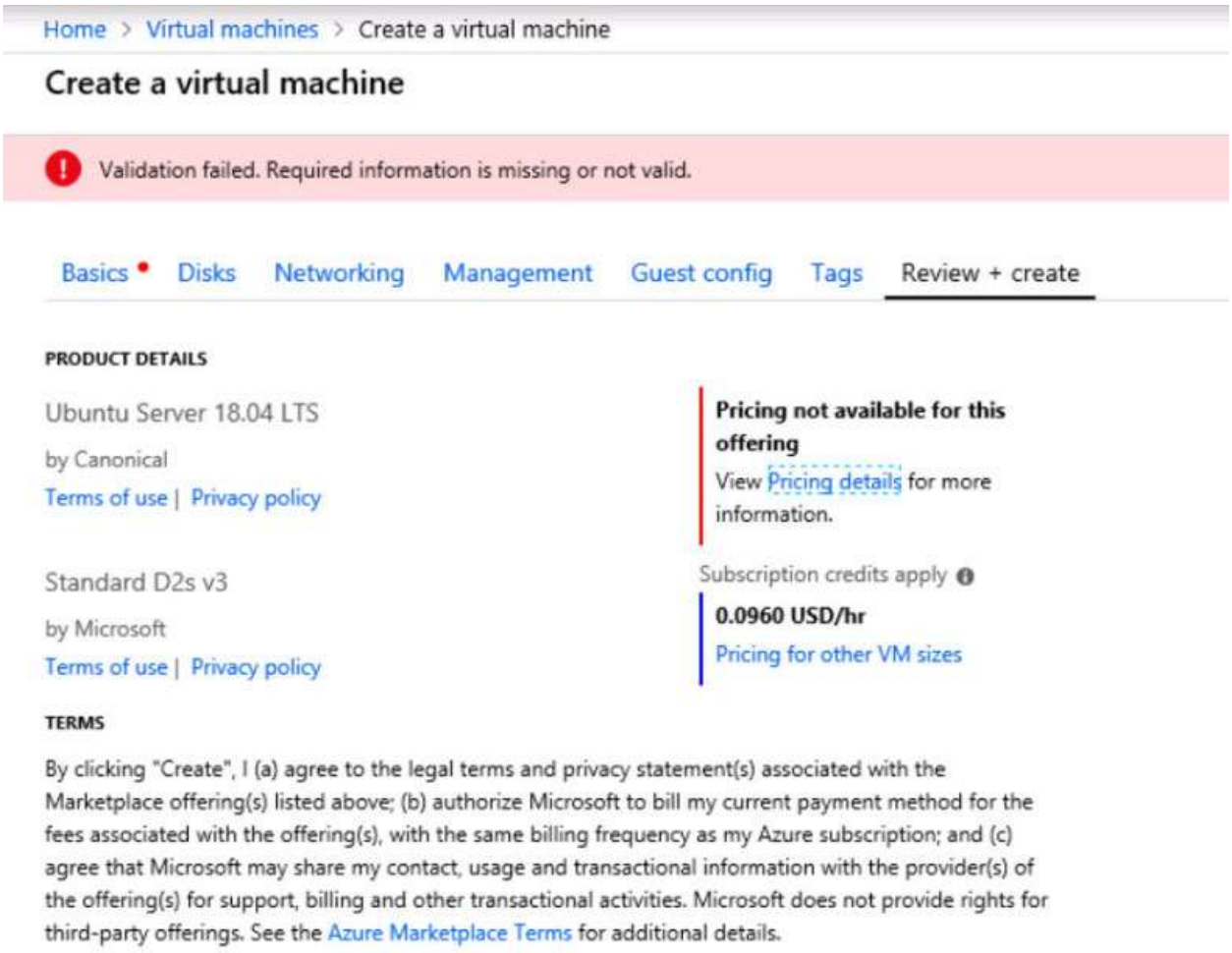












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
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Overview -
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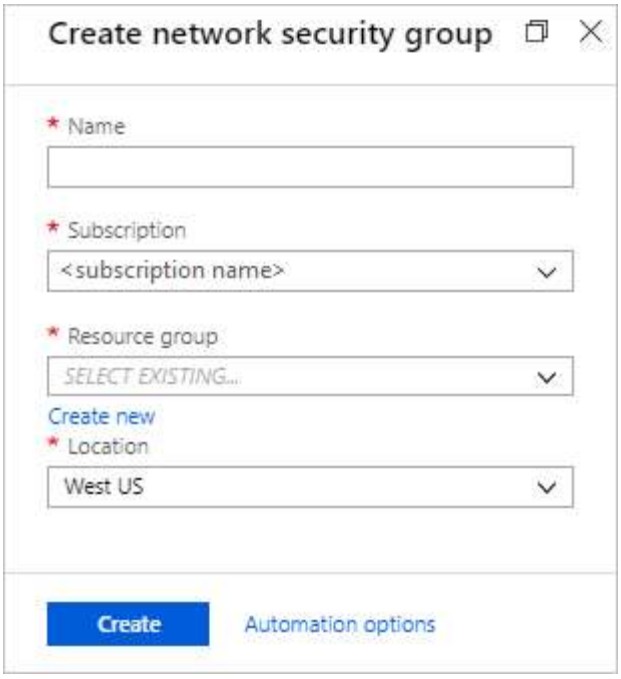
To start the lab -
You may start the lab by clicking the Next button.
You plan to host several secured websites on Web01.
You need to allow HTTPS over TCP port 443 to Web01 and to prevent HTTP over TCP port 80 to Web01.
What should you do from the Azure portal?

Hide Solution Discussion 8

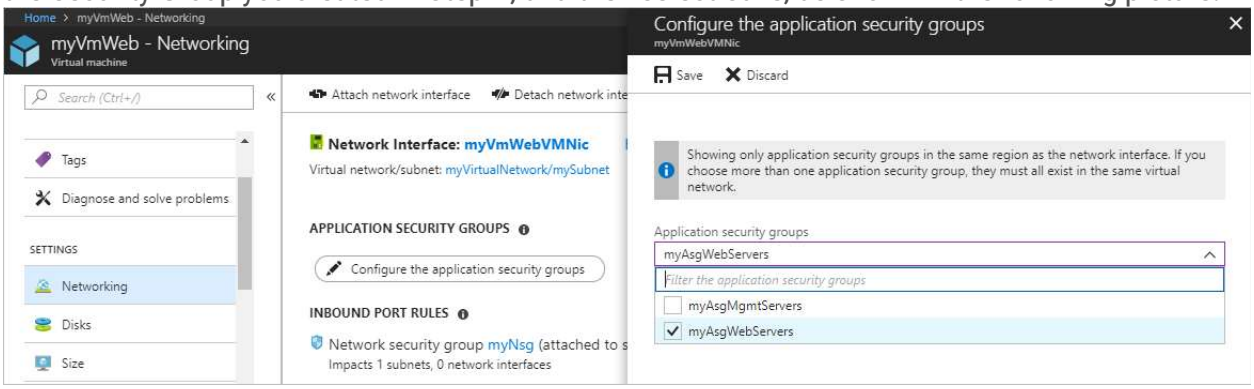
Correct Answer: *See explanation below.*
You can filter network traffic to and from Azure resources in an Azure virtual network with a network security group. A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources.
A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources.
Step A: Create a network security group
A1. Search for and select the resource group for the VM, choose Add, then search for and select Network security group.
A2. Select Create.



The Create network security group window opens.
A3. Create a network security group
Enter a name for your network security group.
Select or create a resource group, then select a location.
A4. Select Create to create the network security group.
Step B: Create an inbound security rule to allows HTTPS over TCP port 443
B1. Select your new network security group.
B2. Select Inbound security rules, then select Add.

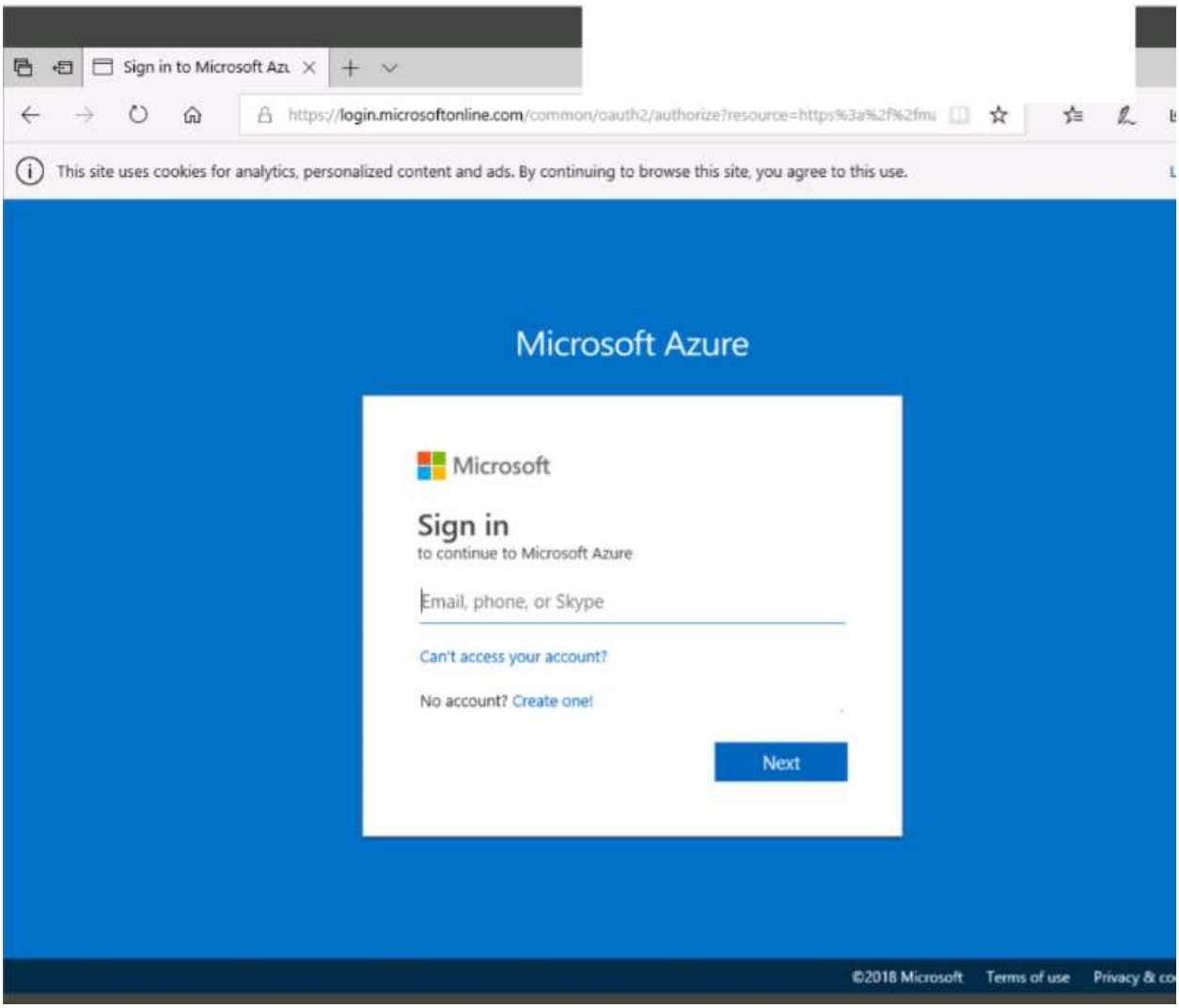
B3. Add inbound rule -
B4. Select Advanced.
From the drop-down menu, select HTTPS.
You can also verify by clicking Custom and selecting TCP port, and 443.
B5. Select Add to create the rule.
Repeat step B2-B5 to deny TCP port 80
B6. Select Inbound security rules, then select Add.

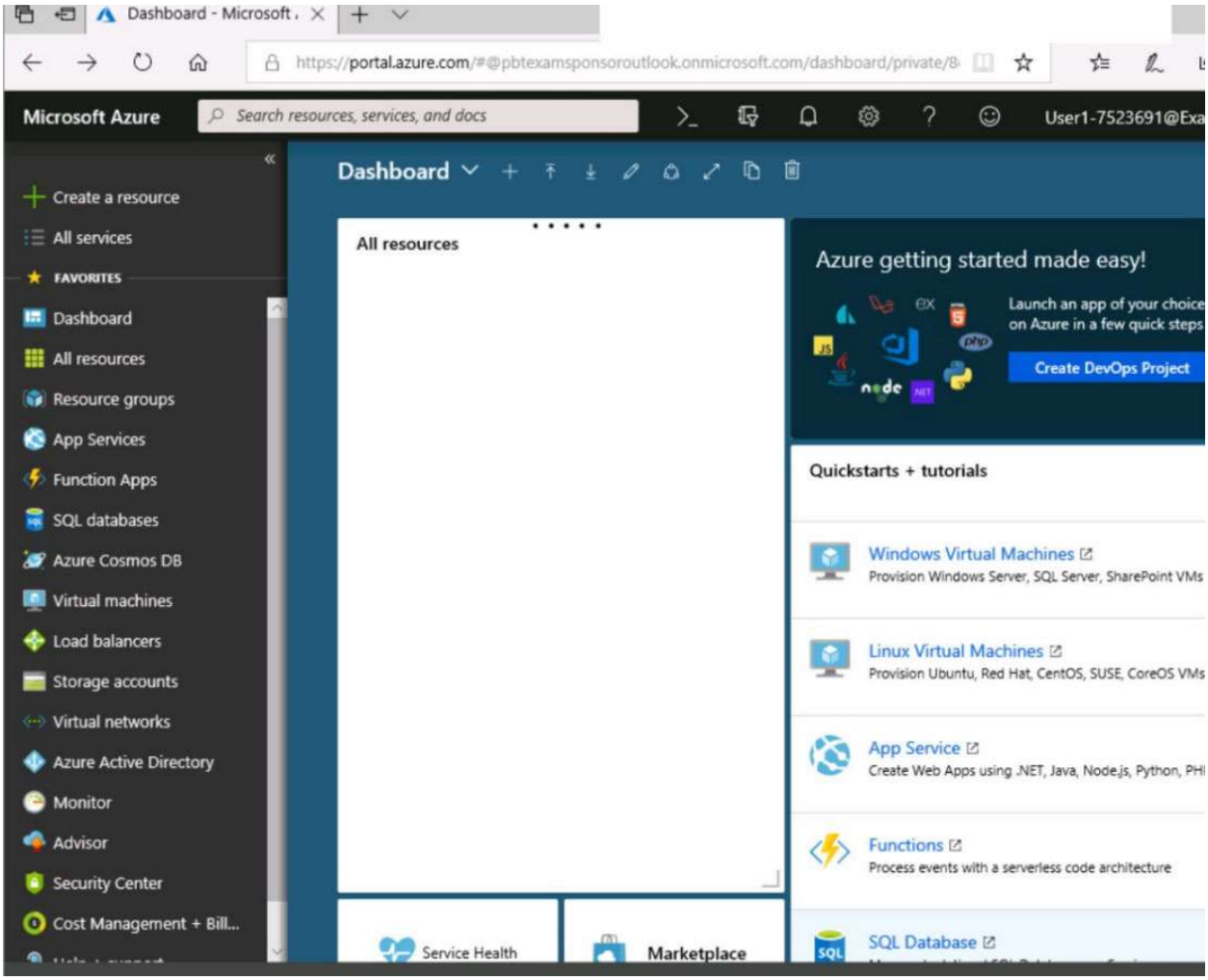
B7. Add inbound rule -
B8. Select Advanced.
Clicking Custom and selecting TCP port, and 80.
B9. Select Deny.
Step C: Associate your network security group with a subnet
Your final step is to associate your network security group with a subnet or a specific network interface.
C1. In the Search resources, services, and docs box at the top of the portal, begin typing Web01. When the Web01 VM appears in the search results, select it.
C2. Under SETTINGS, select Networking. Select Configure the application security groups, select the Security Group you created in Step A, and then select Save, as shown in the following picture:

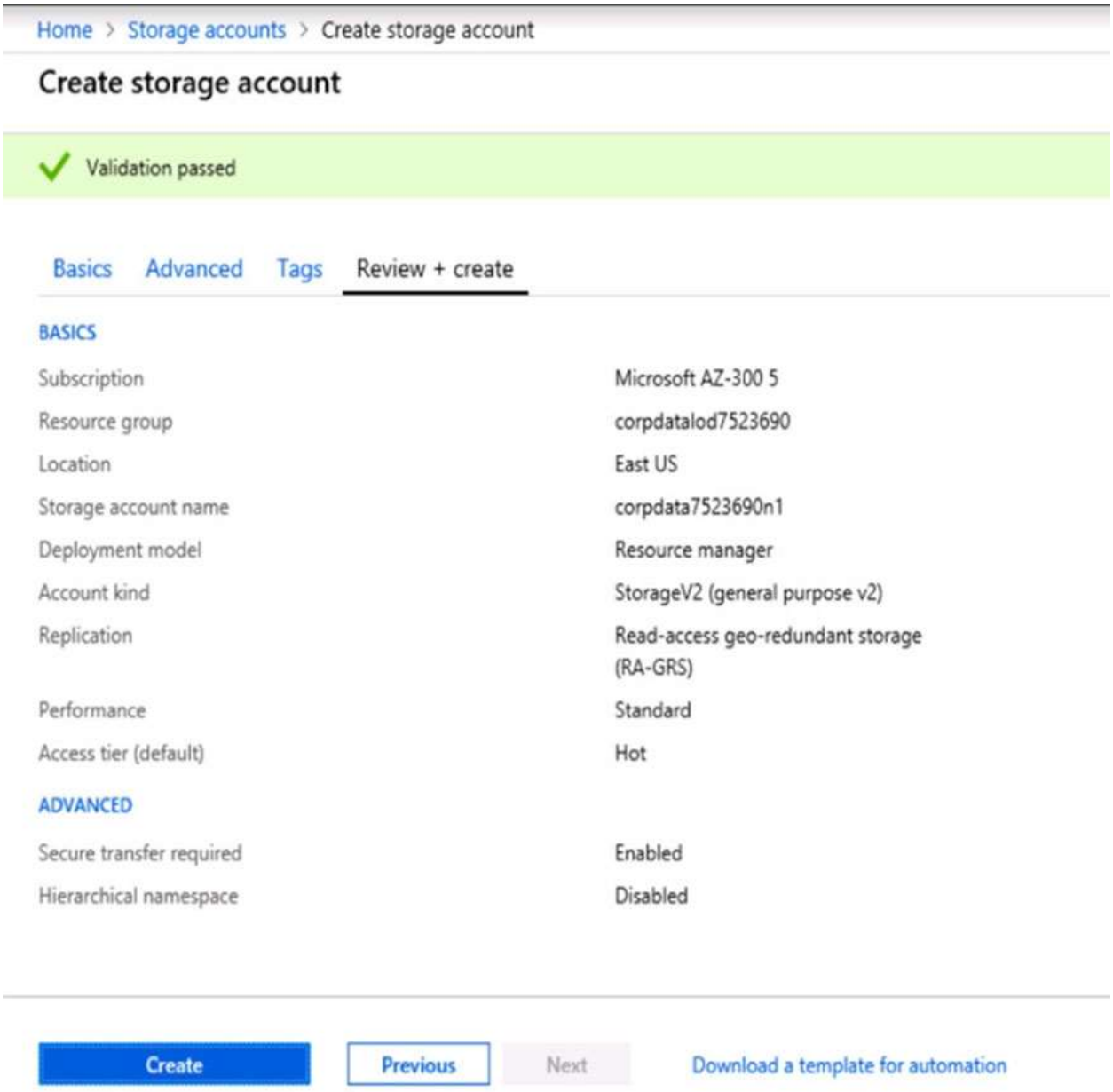


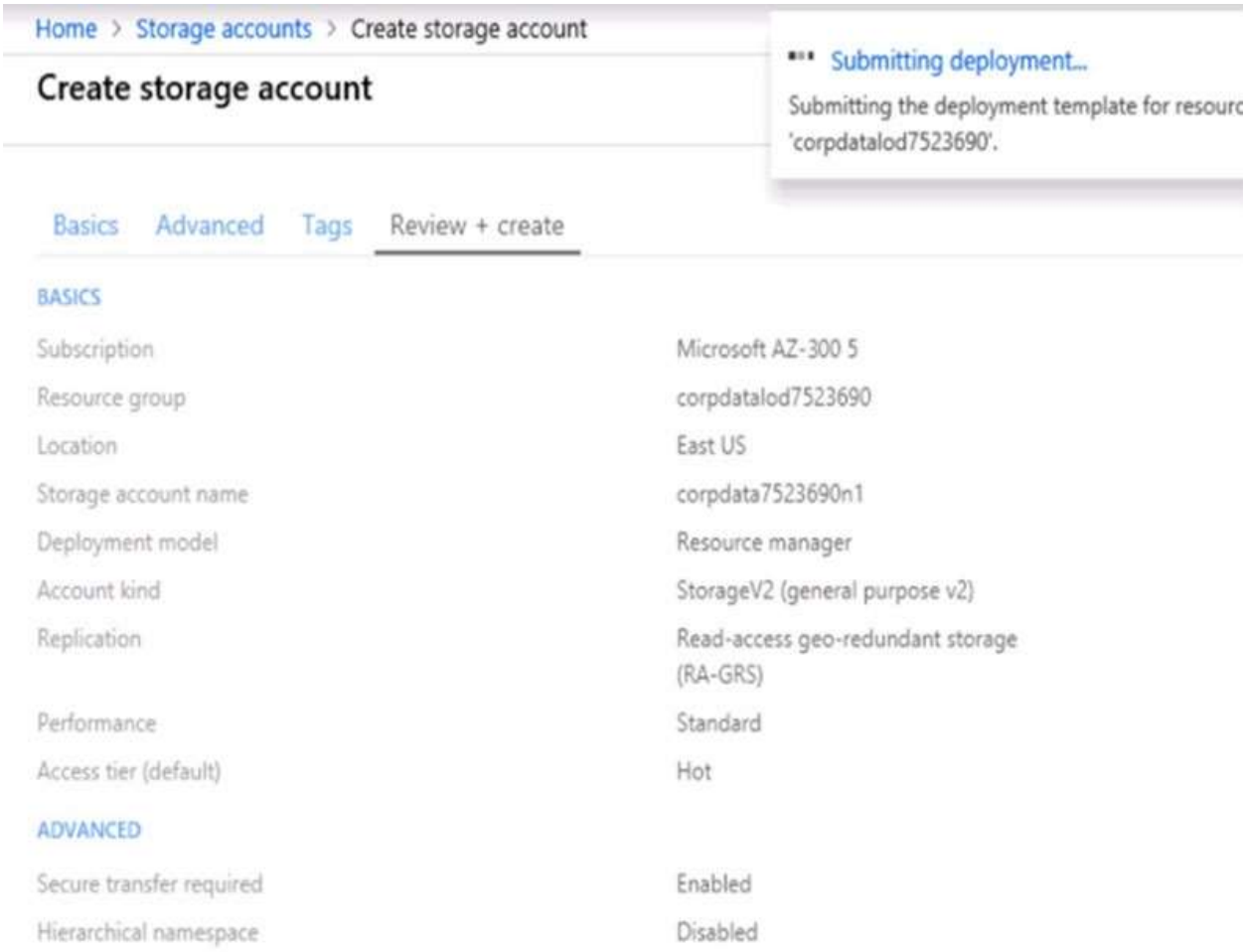
References:
https://docs.microsoft.com/en-us/azure/virtual-network/tutorial-filter-network-traffic

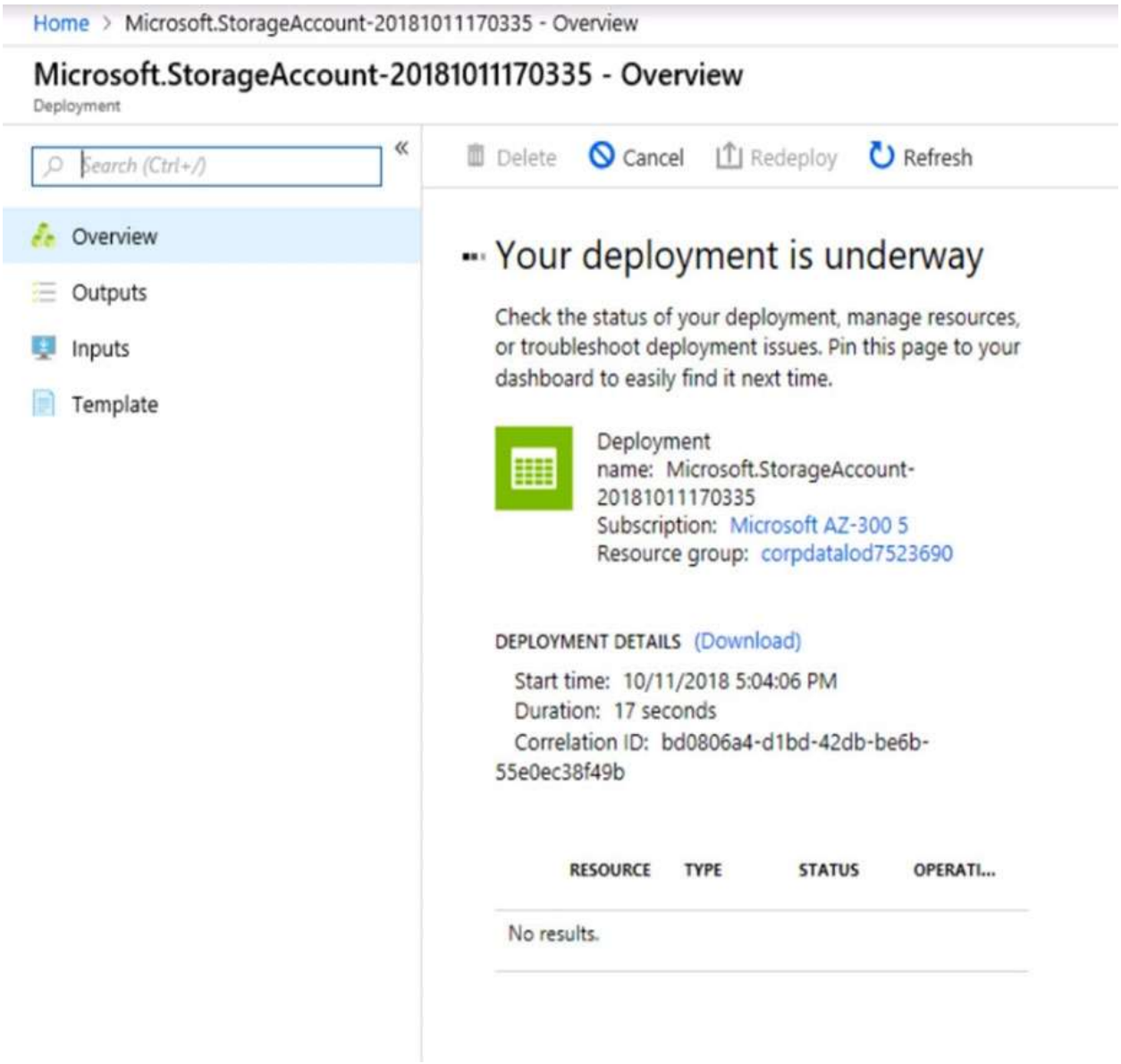
Question #41*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

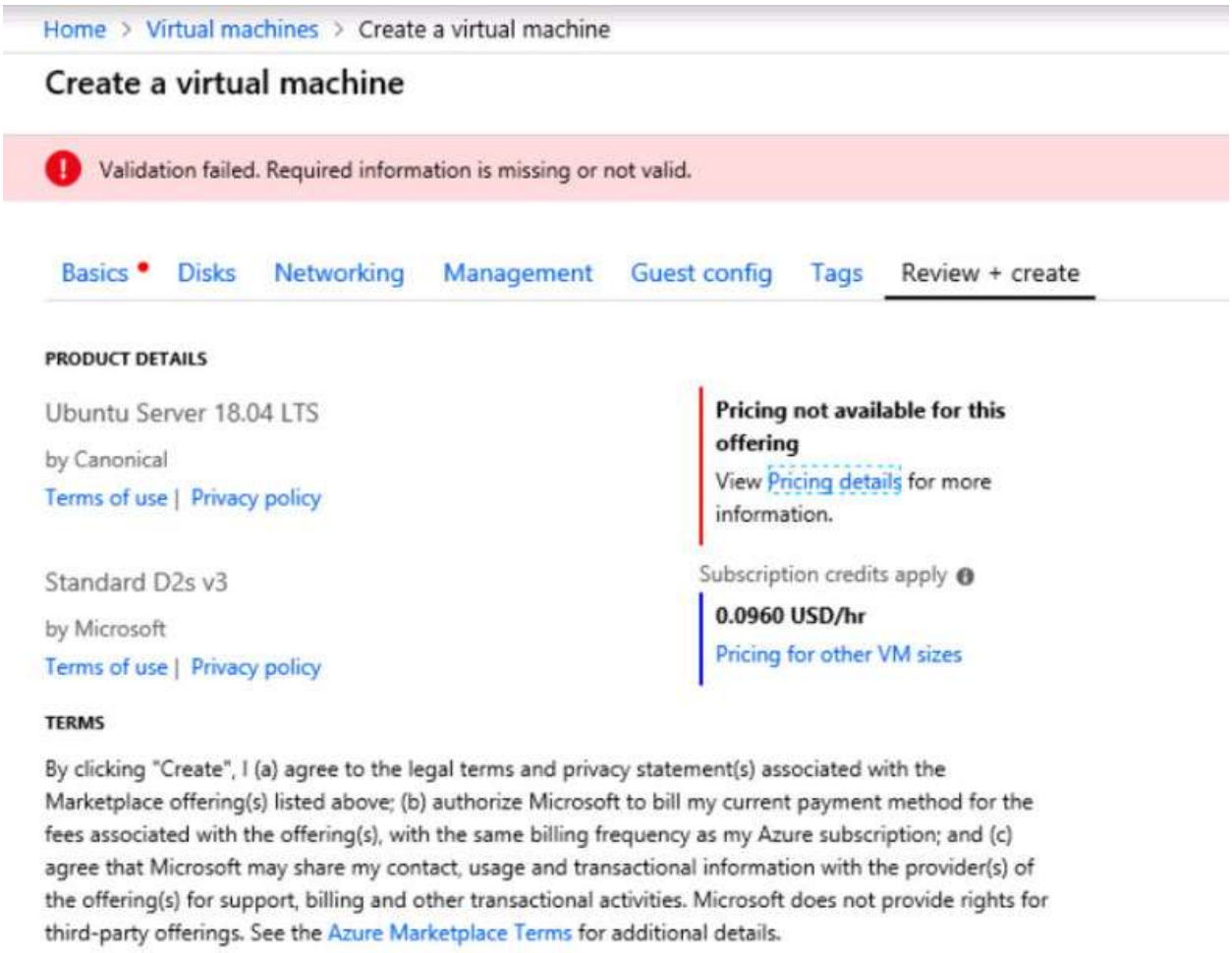












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
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Overview -
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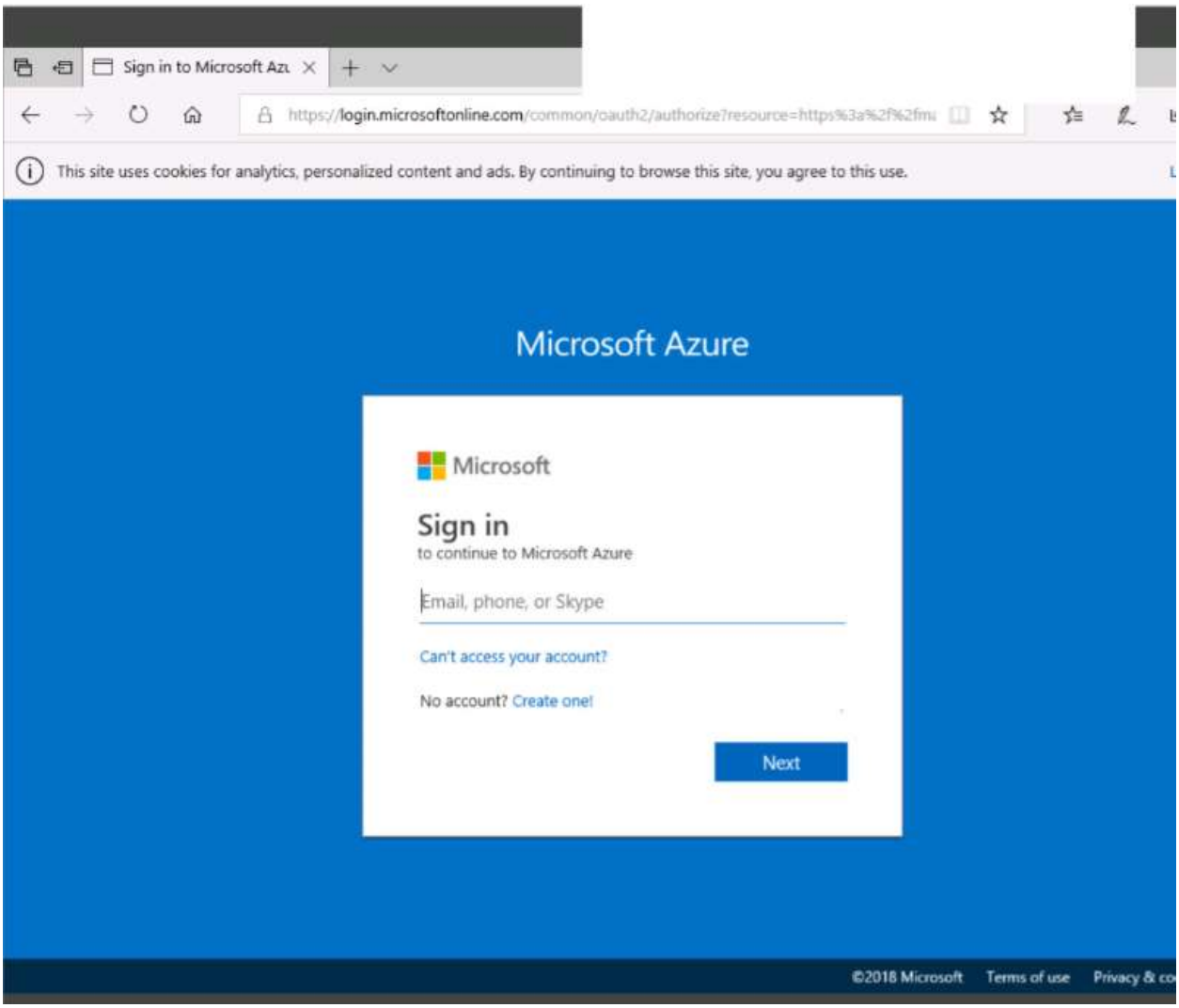
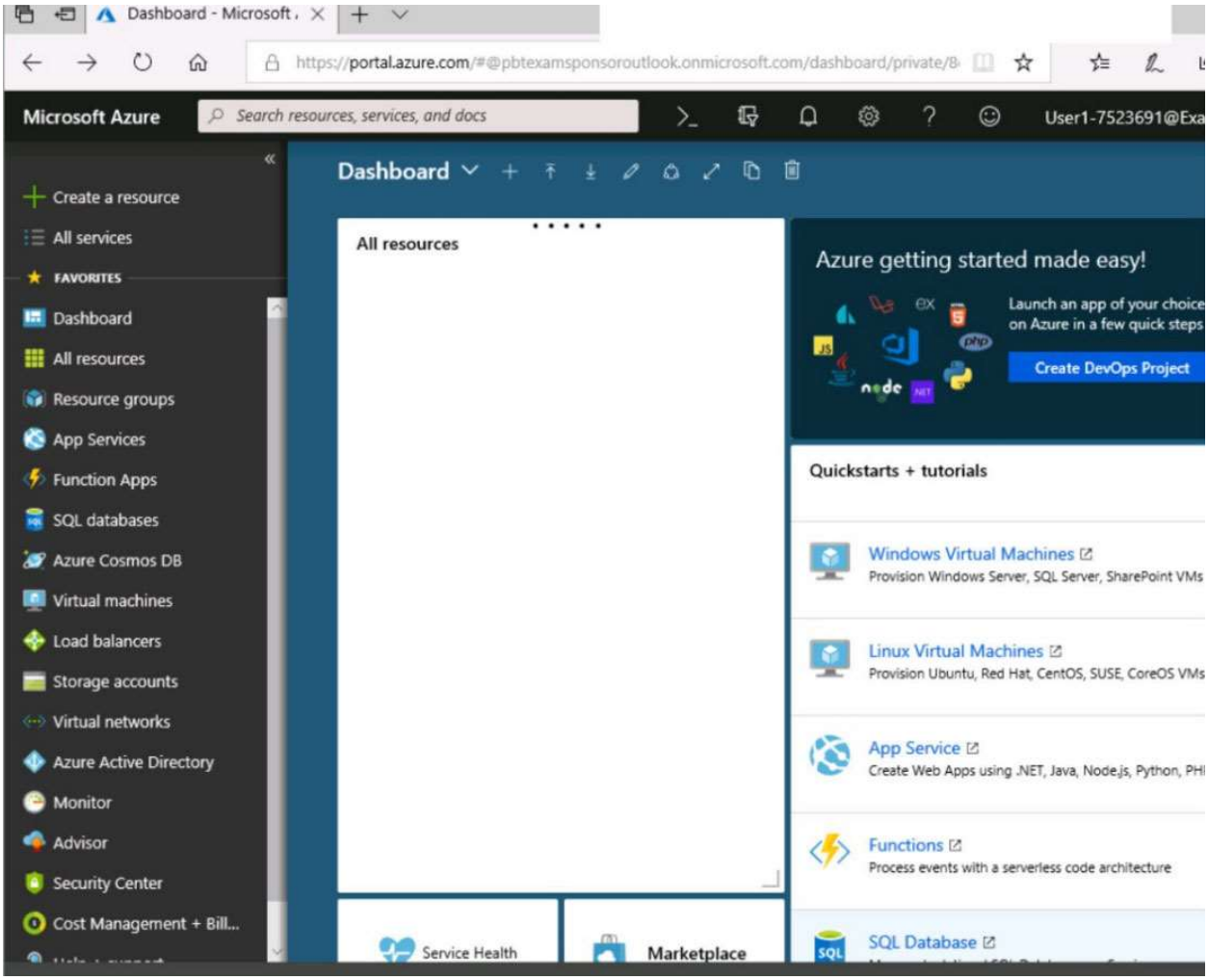
To start the lab -
You may start the lab by clicking the Next button.
Your on-premises network uses an IP address range of 131.107.2.0 to 131.107.2.255.
You need to ensure that only devices from the on-premises network can connect to the rg1lod8322490n1 storage account.
What should you do from the Azure portal?

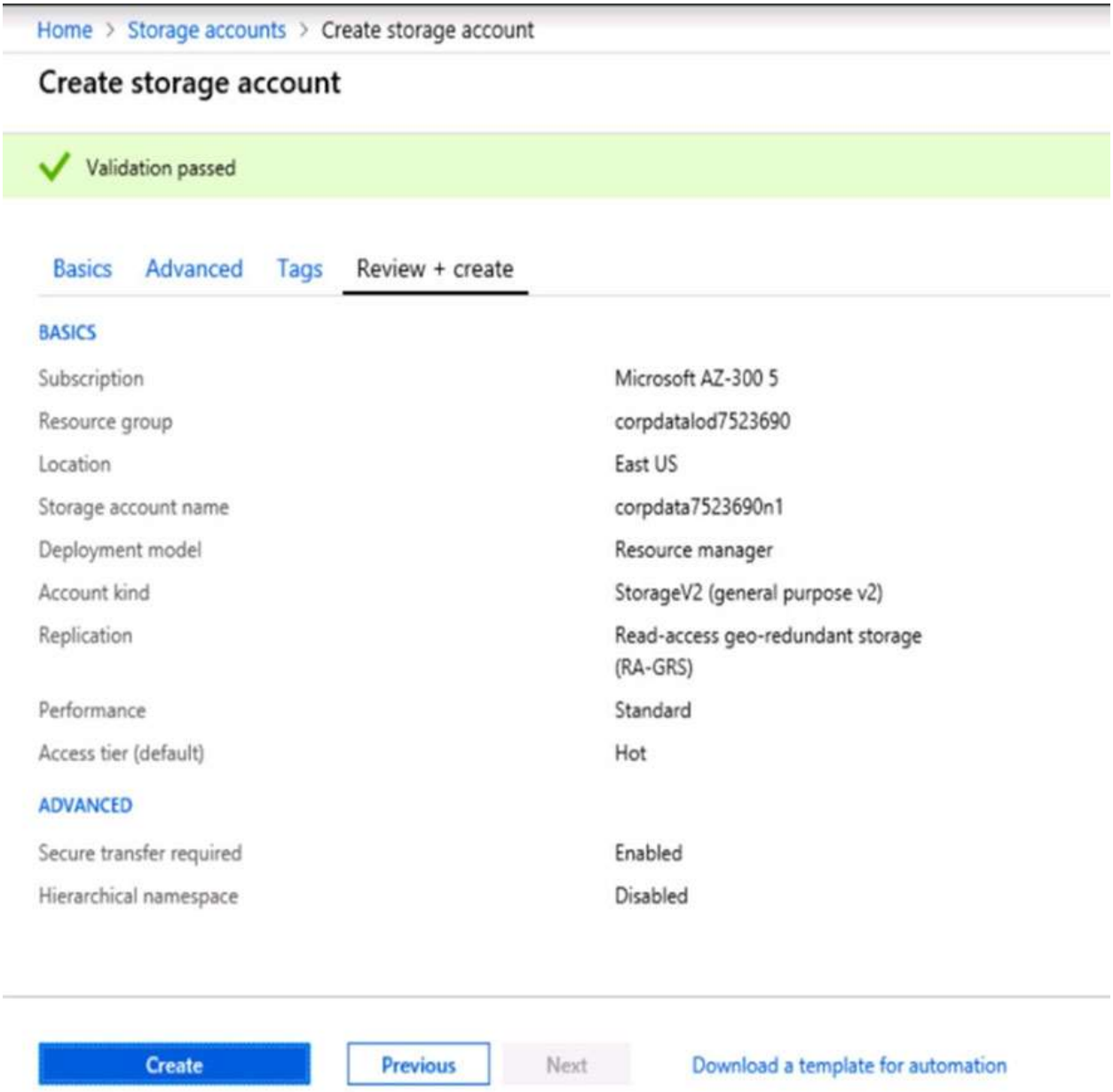
Hide Solution Discussion 4

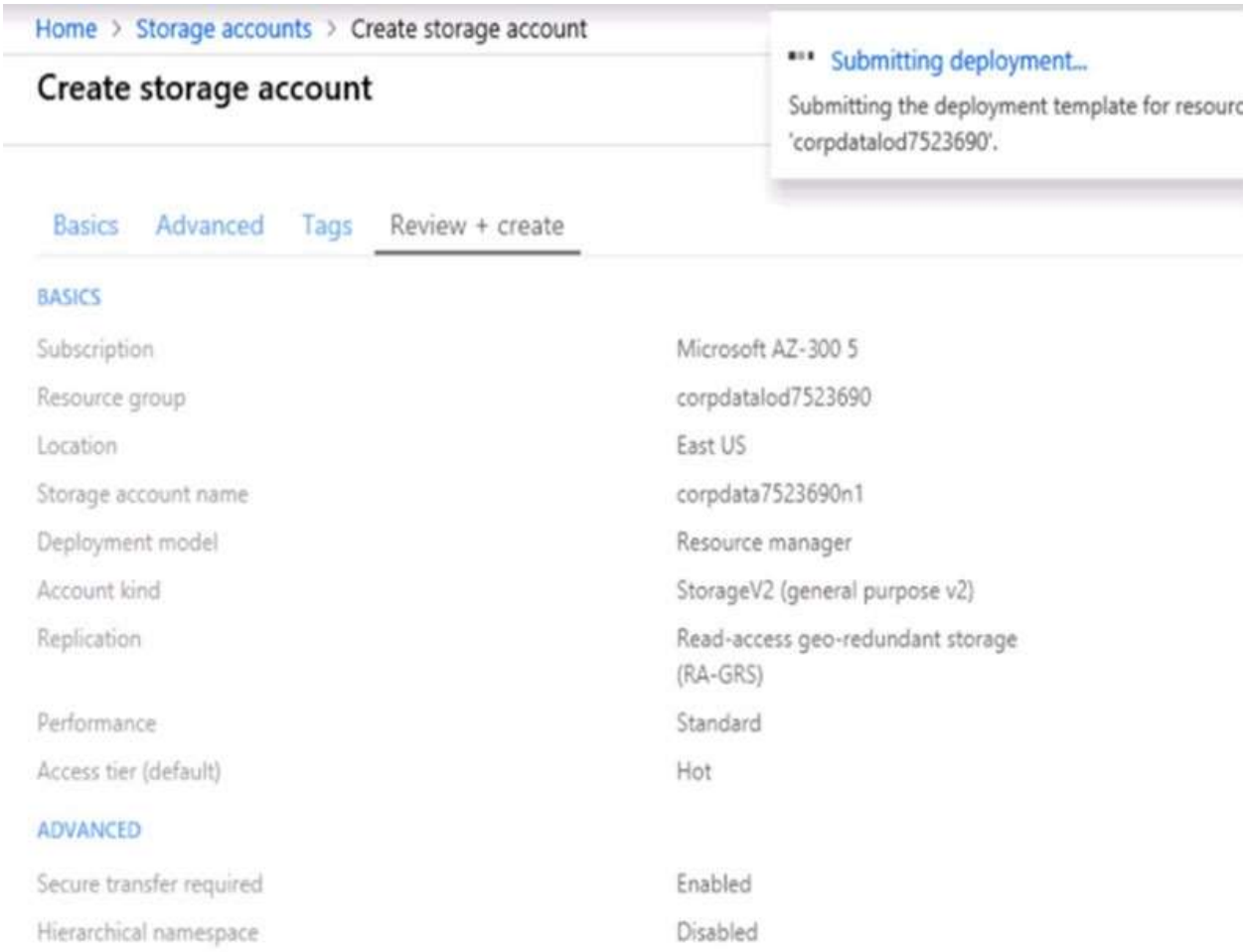
Correct Answer: *See solution below.*
Step 1: Navigate to the rg1lod8322490n1 storage account.
Step 2: Click on the settings menu called Firewalls and virtual networks.
Step 3: Ensure that you have elected to allow access from 'Selected networks'.
Step 4: To grant access to an internet IP range, enter the address range of 131.107.2.0 to 131.107.2.255 (in CIDR format) under Firewall, Address Ranges.
References:
https://docs.microsoft.com/en-us/azure/storage/common/storage-network-security

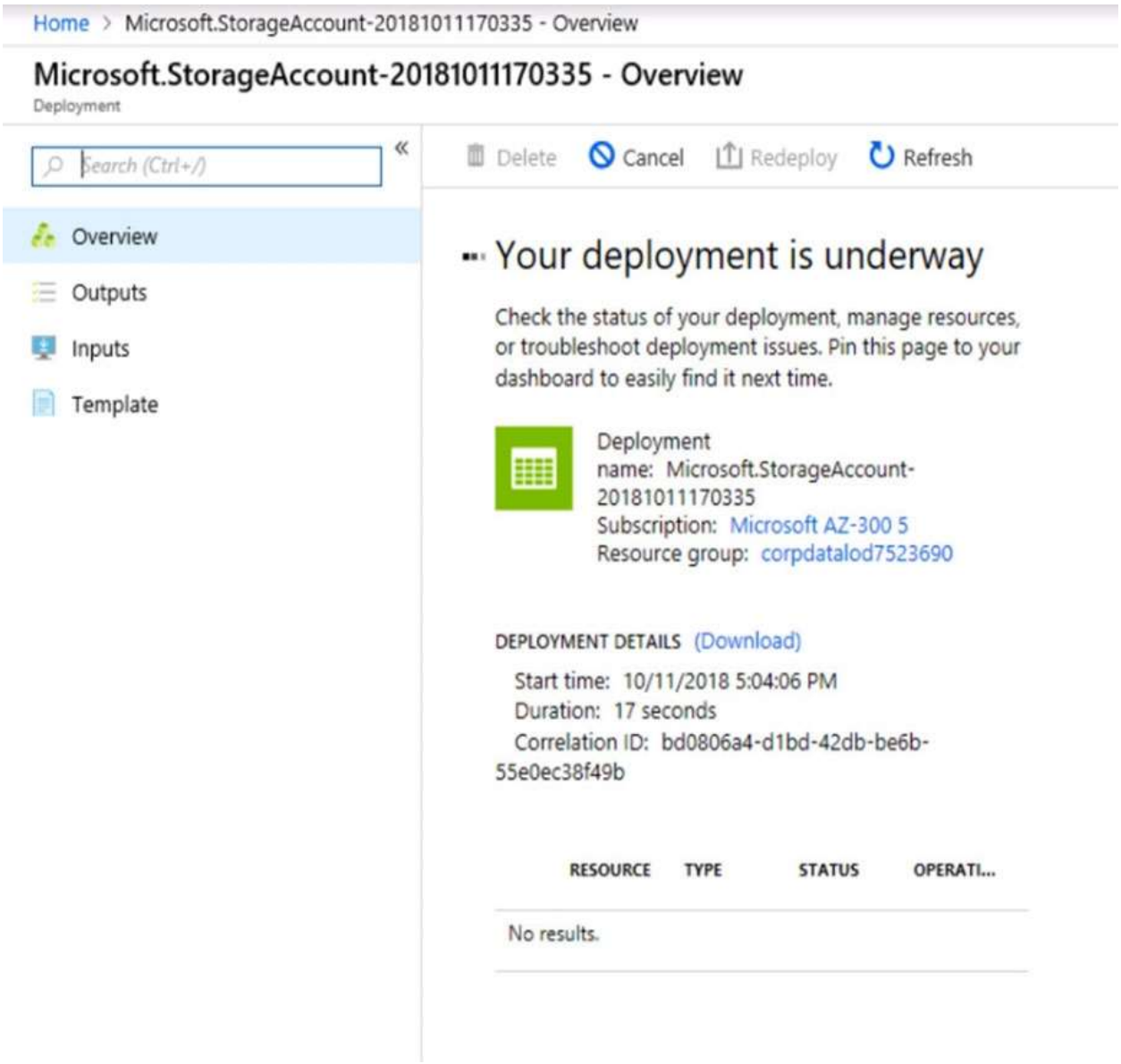
Question #42*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

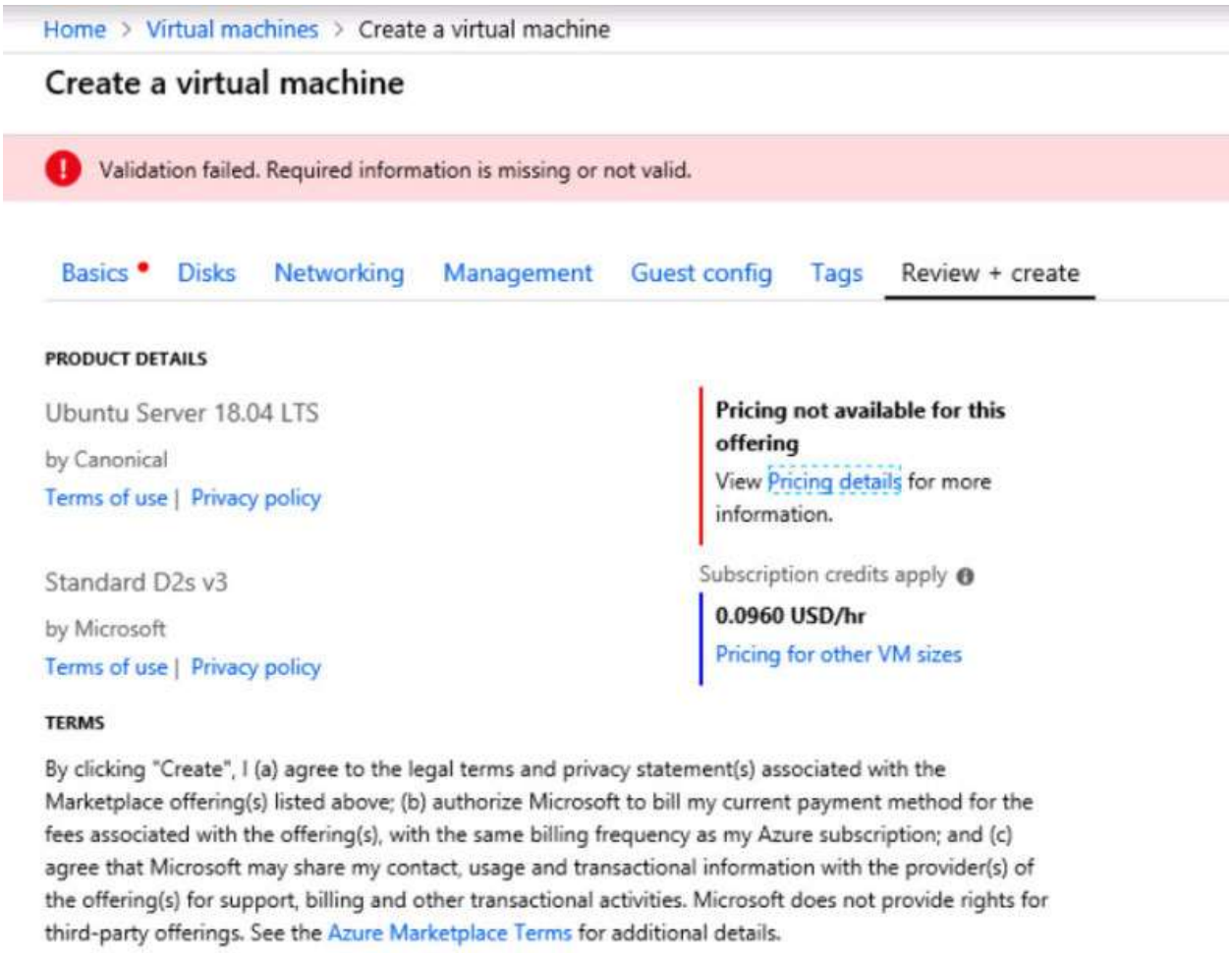












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
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Overview -
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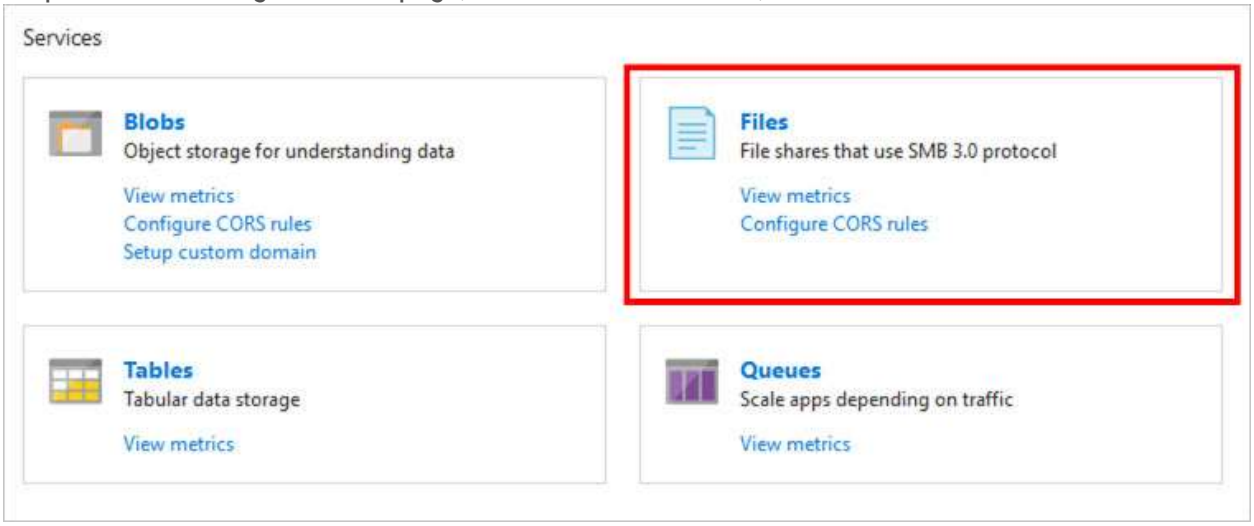
To start the lab -
You may start the lab by clicking the Next button.
You plan to store media files in the corpdata7523690n1 storage account.
You need to configure the storage account to store the media files. The solution must ensure that only users who have access keys can download the media files and that the files are accessible only over HTTPS.
What should you do from the Azure portal?

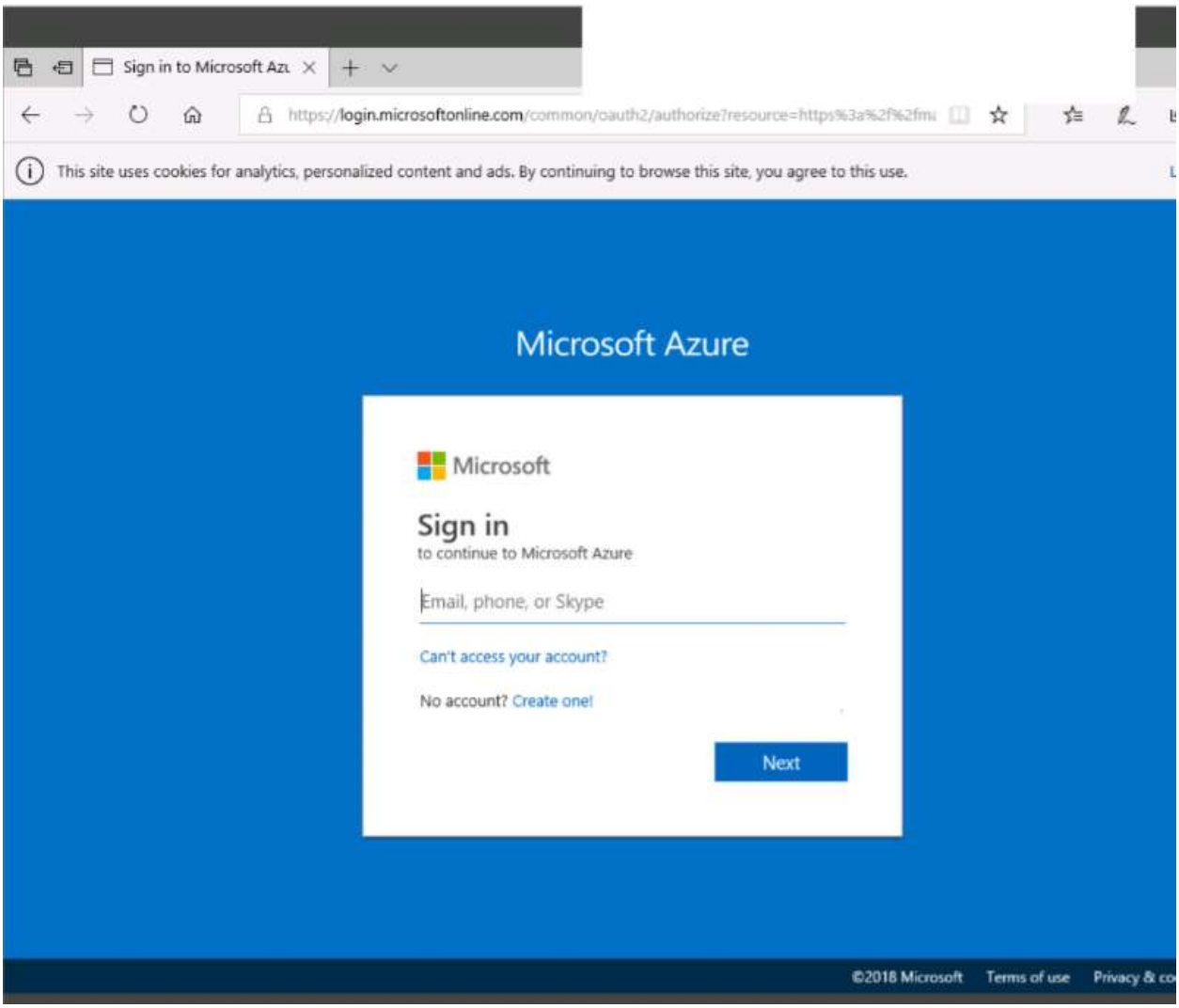
Hide Solution Discussion 10

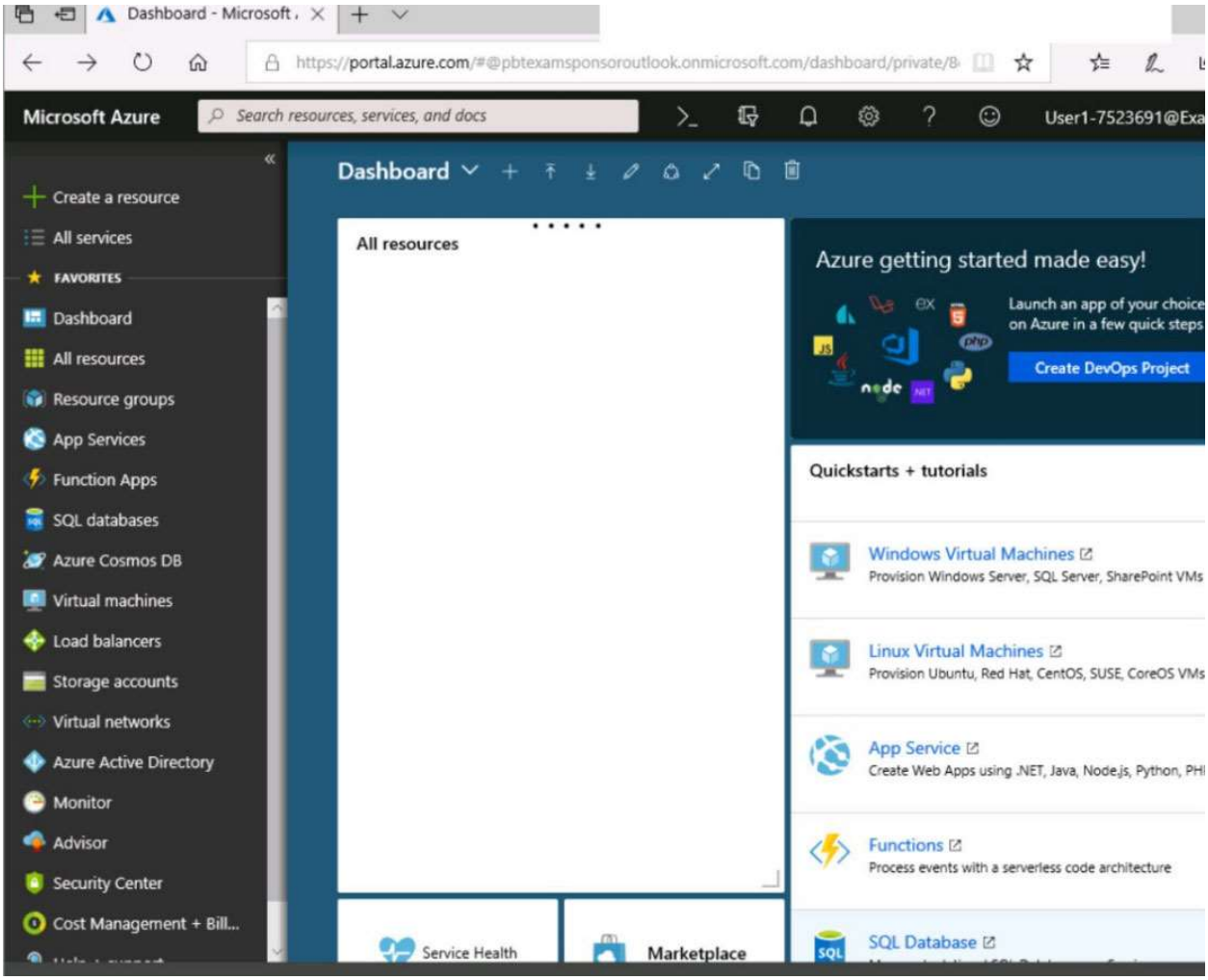
Correct Answer: *See solution below.*
We should create an Azure file share.
Step 1: In the Azure portal, select All services. In the list of resources, type Storage Accounts. As you begin typing, the list filters based on your input. Select
Storage Accounts.
On the Storage Accounts window that appears.
Step 2: Locate the corpdata7523690n1 storage account.
Step 3: On the storage account page, in the Services section, select Files.

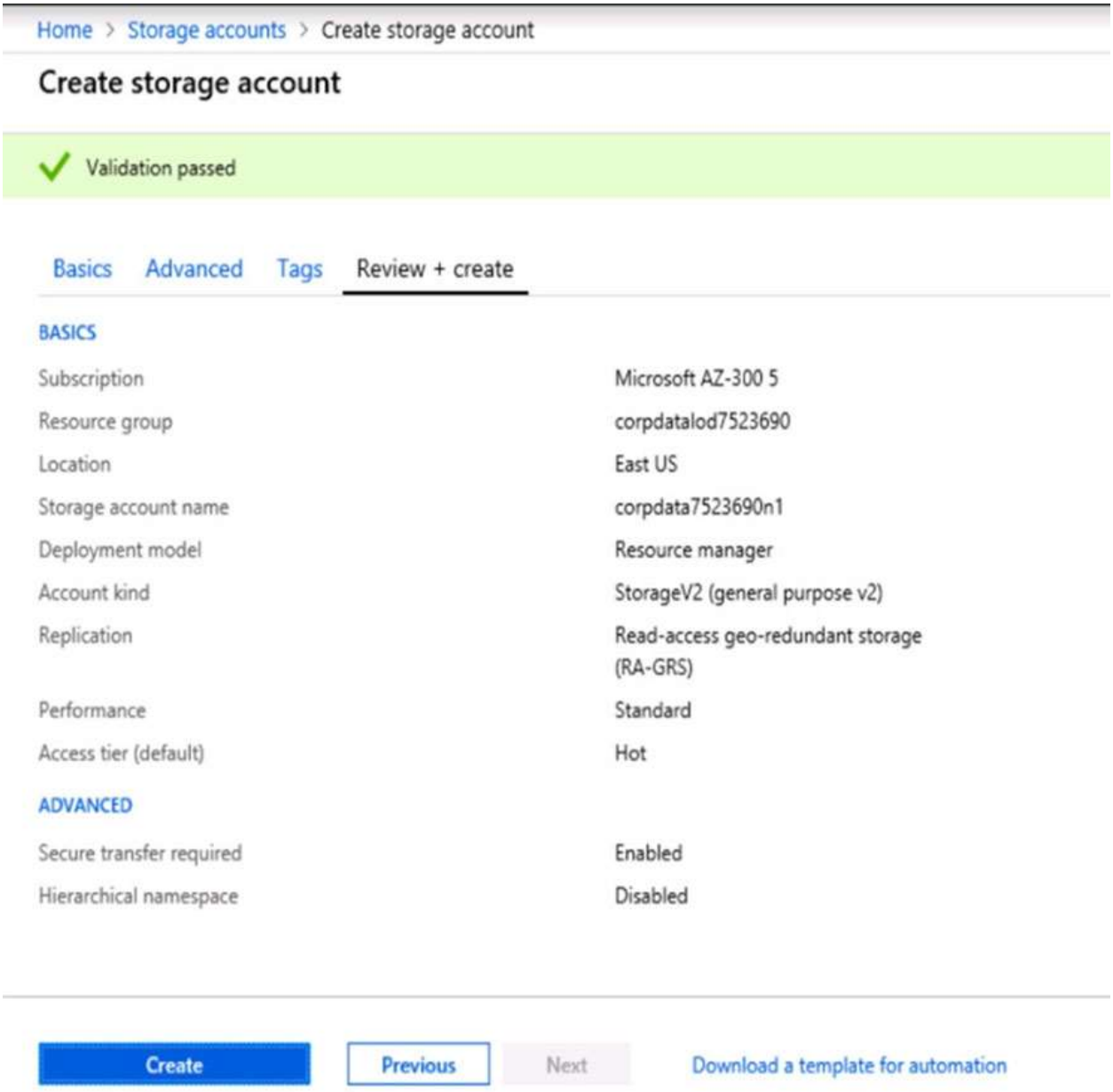


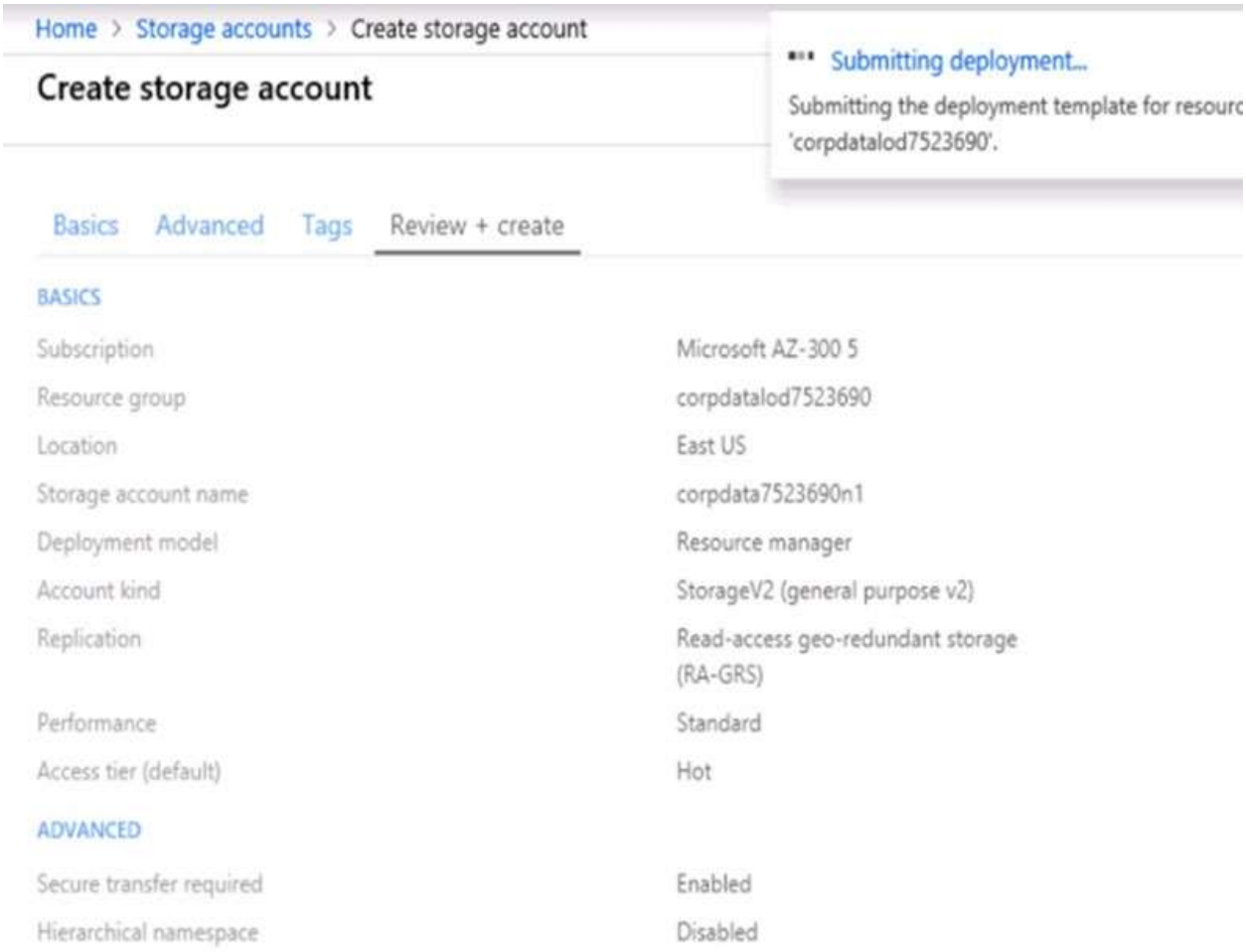
Step 4: On the menu at the top of the File service page, click + File share. The New file share page drops down.
Step 5: In Name type myshare. Click OK to create the Azure file share.
References:
https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-portal

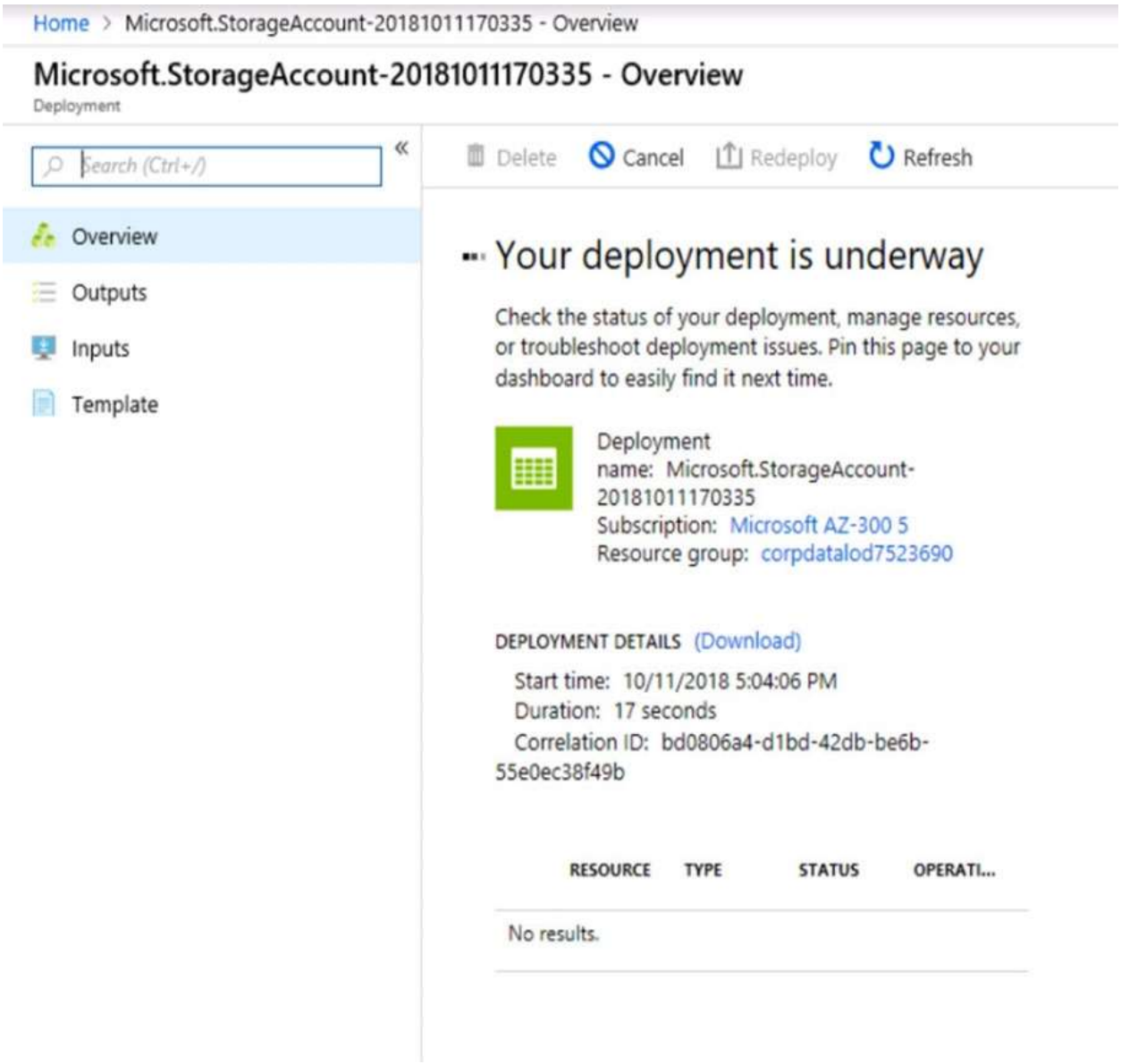
Question #43*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

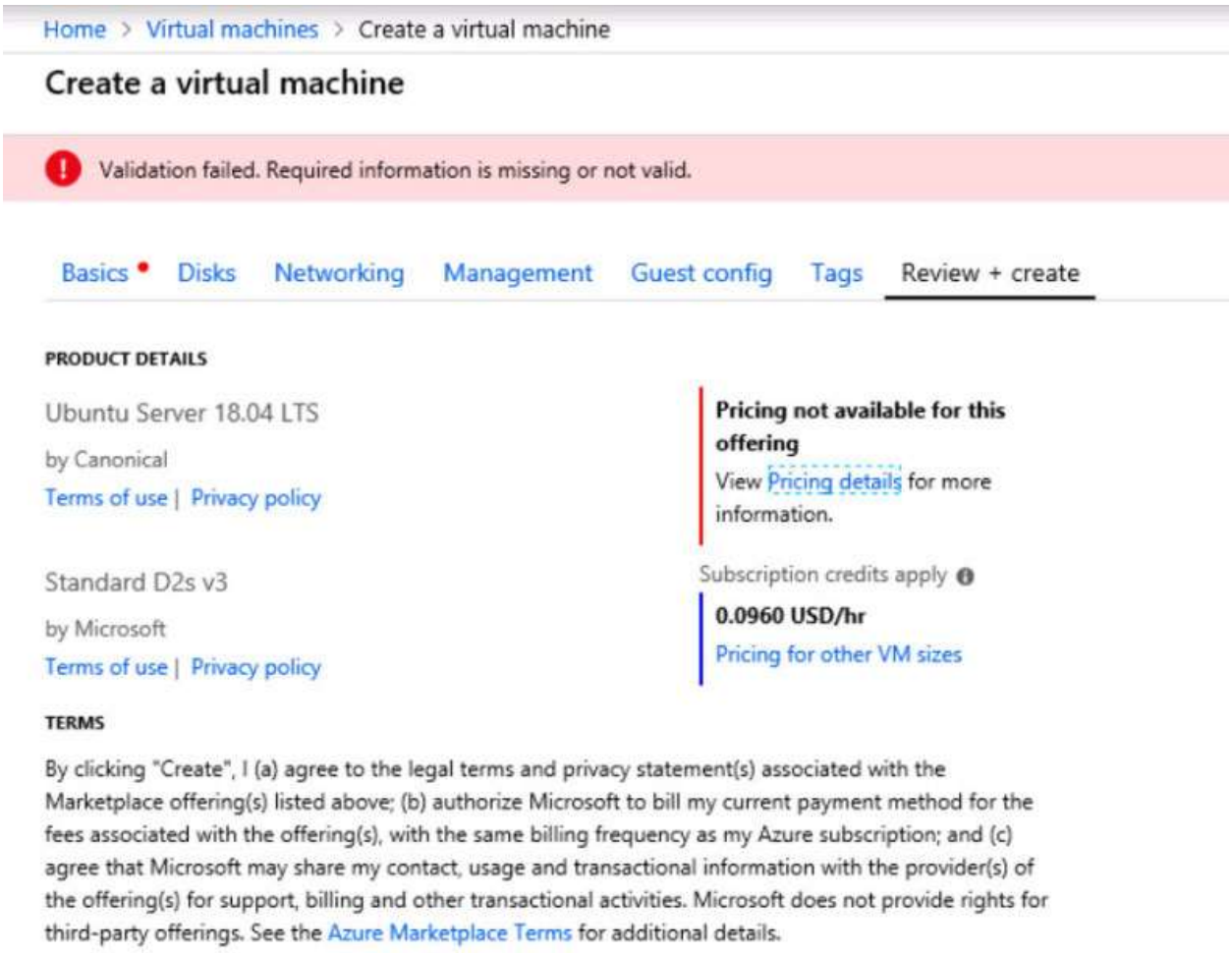












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
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Overview -
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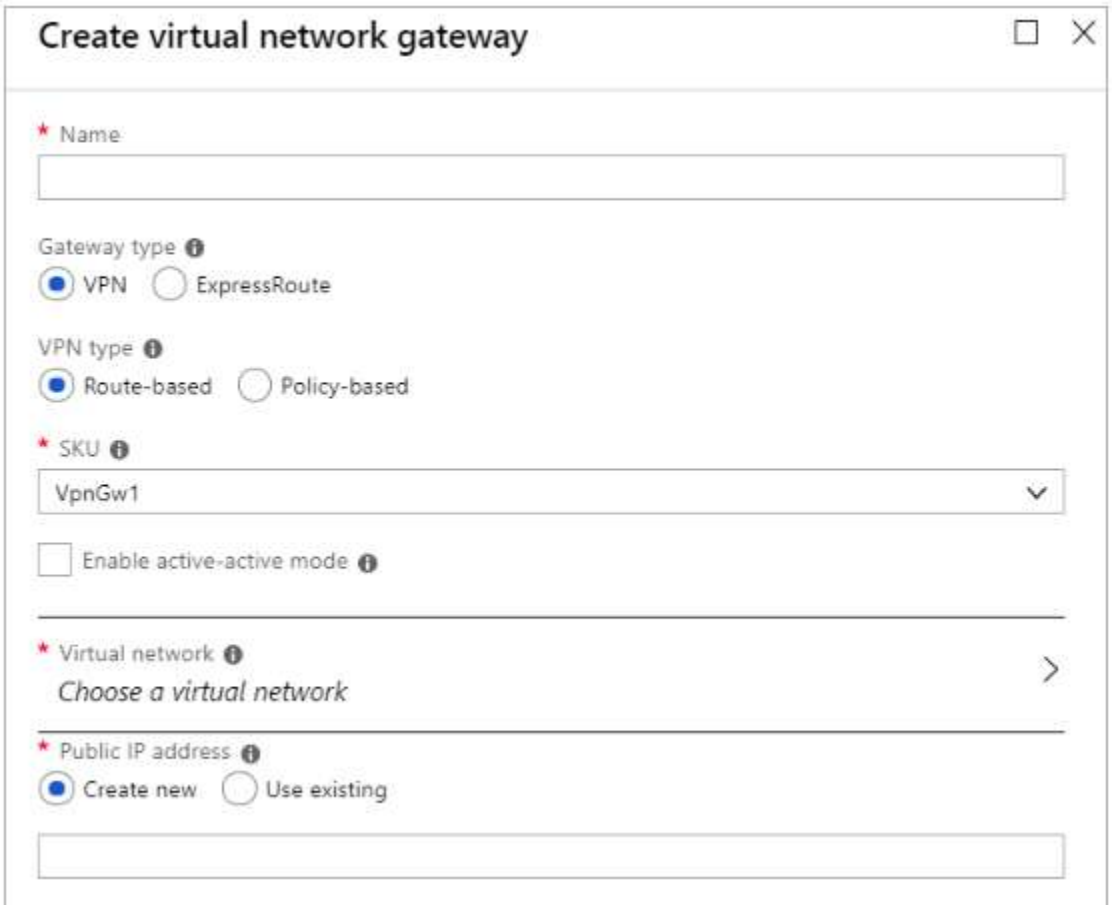
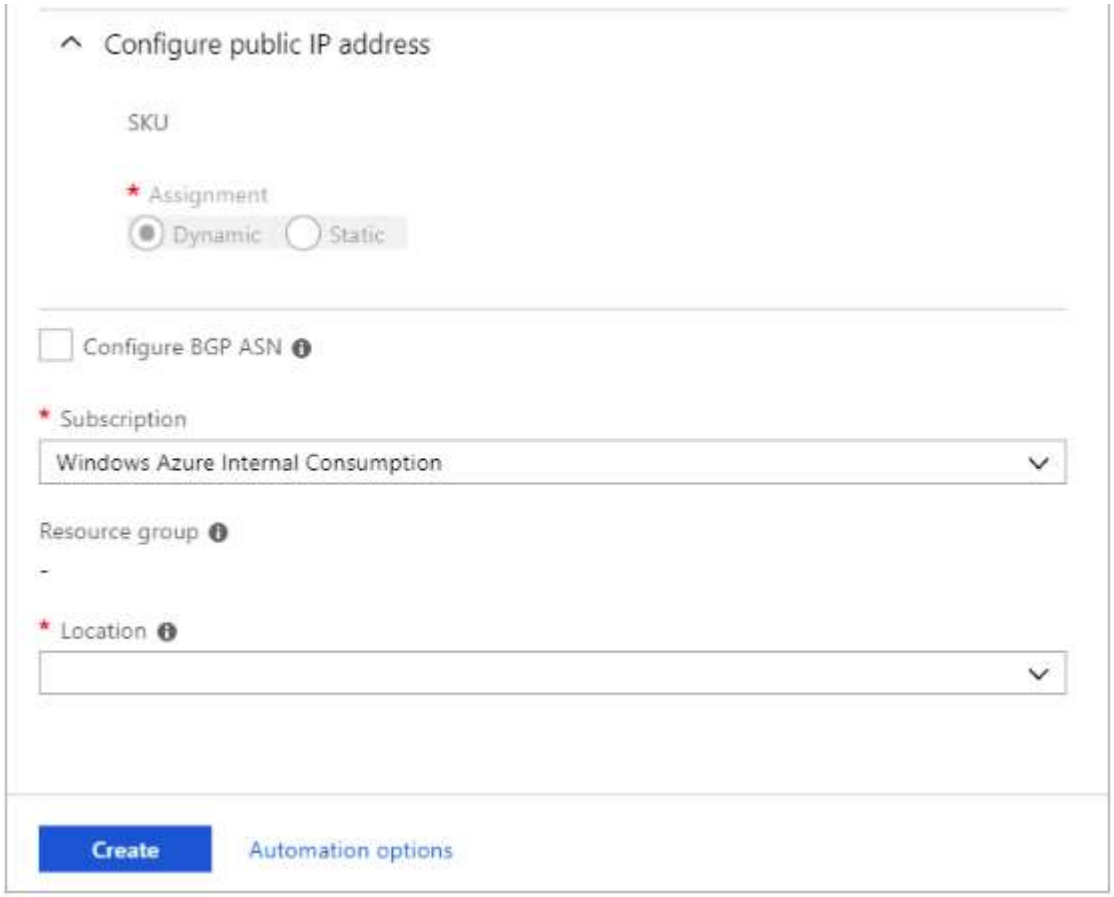
To start the lab -
You may start the lab by clicking the Next button.
Another administrator attempts to establish connectivity between two virtual networks named VNET1 and VNET2. The administrator reports that connections across the virtual networks fail.
You need to ensure that network connections can be established successfully between VNET1 and VNET2 as quickly as possible.
What should you do from the Azure portal?

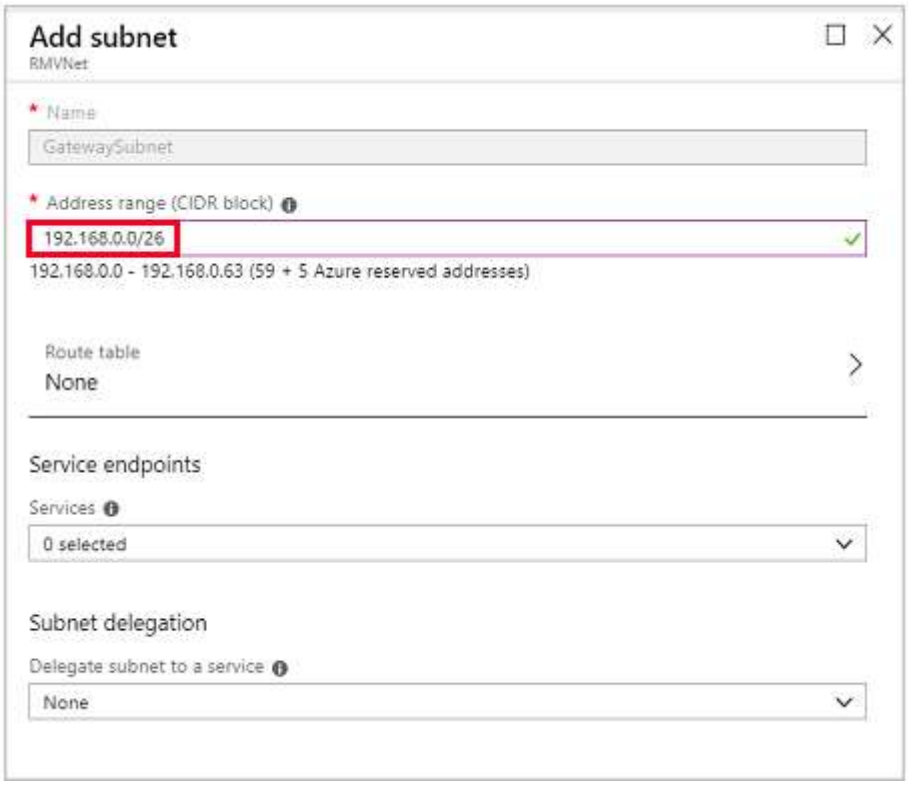
Hide Solution | Discussion 7

Correct Answer: *See solution below.*
You can connect one VNet to another VNet using either a Virtual network peering, or an Azure VPN Gateway.
To create a virtual network gateway
Step 1: In the portal, on the left side, click +Create a resource and type 'virtual network gateway' in search. Locate Virtual network gateway in the search return and click the entry. On the Virtual network gateway page, click Create at the bottom of the page to open the Create virtual network gateway page.
Step 2: On the Create virtual network gateway page, fill in the values for your virtual network gateway.



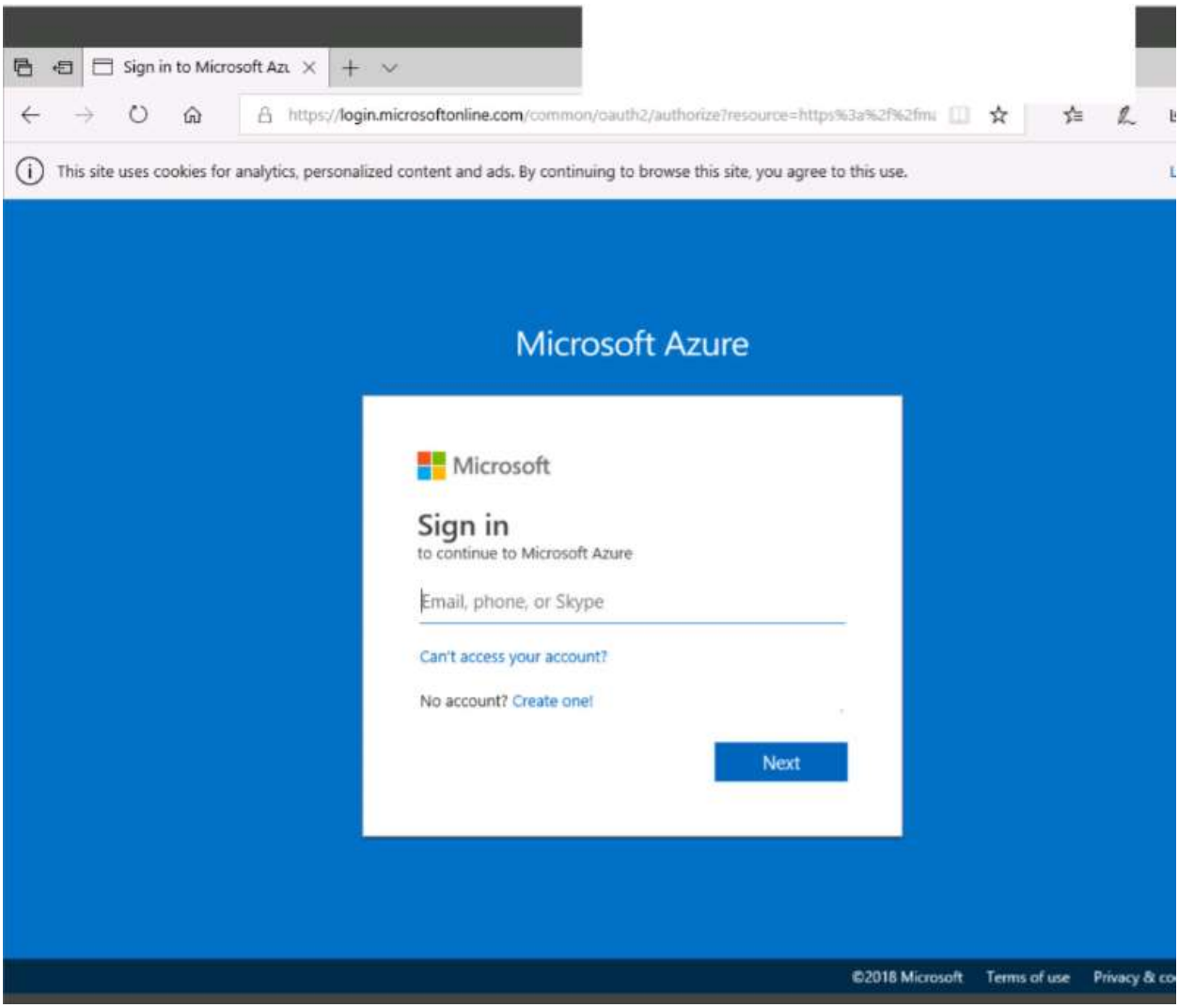


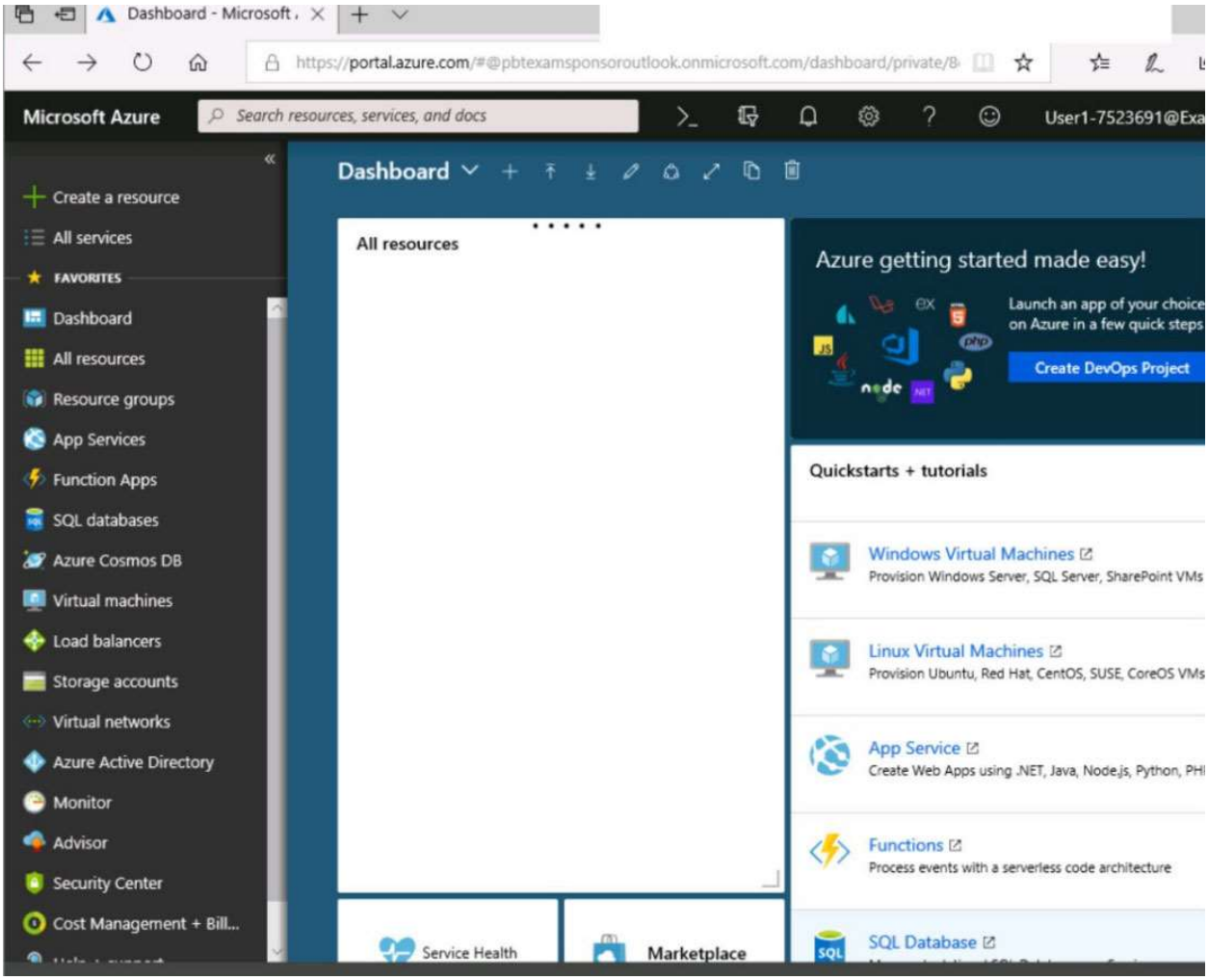
Name: Name your gateway. This is not the same as naming a gateway subnet. It's the name of the gateway object you are creating.
Gateway type: Select VPN. VPN gateways use the virtual network gateway type VPN.
Virtual network: Choose the virtual network to which you want to add this gateway. Click Virtual network to open the 'Choose a virtual network' page. Select the
VNet. If you don't see your VNet, make sure the Location field is pointing to the region in which your virtual network is located.
Gateway subnet address range: You will only see this setting if you did not previously create a gateway subnet for your virtual network. If you previously created a valid gateway subnet, this setting will not appear.
Step 4: Select Create New to create a Gateway subnet.

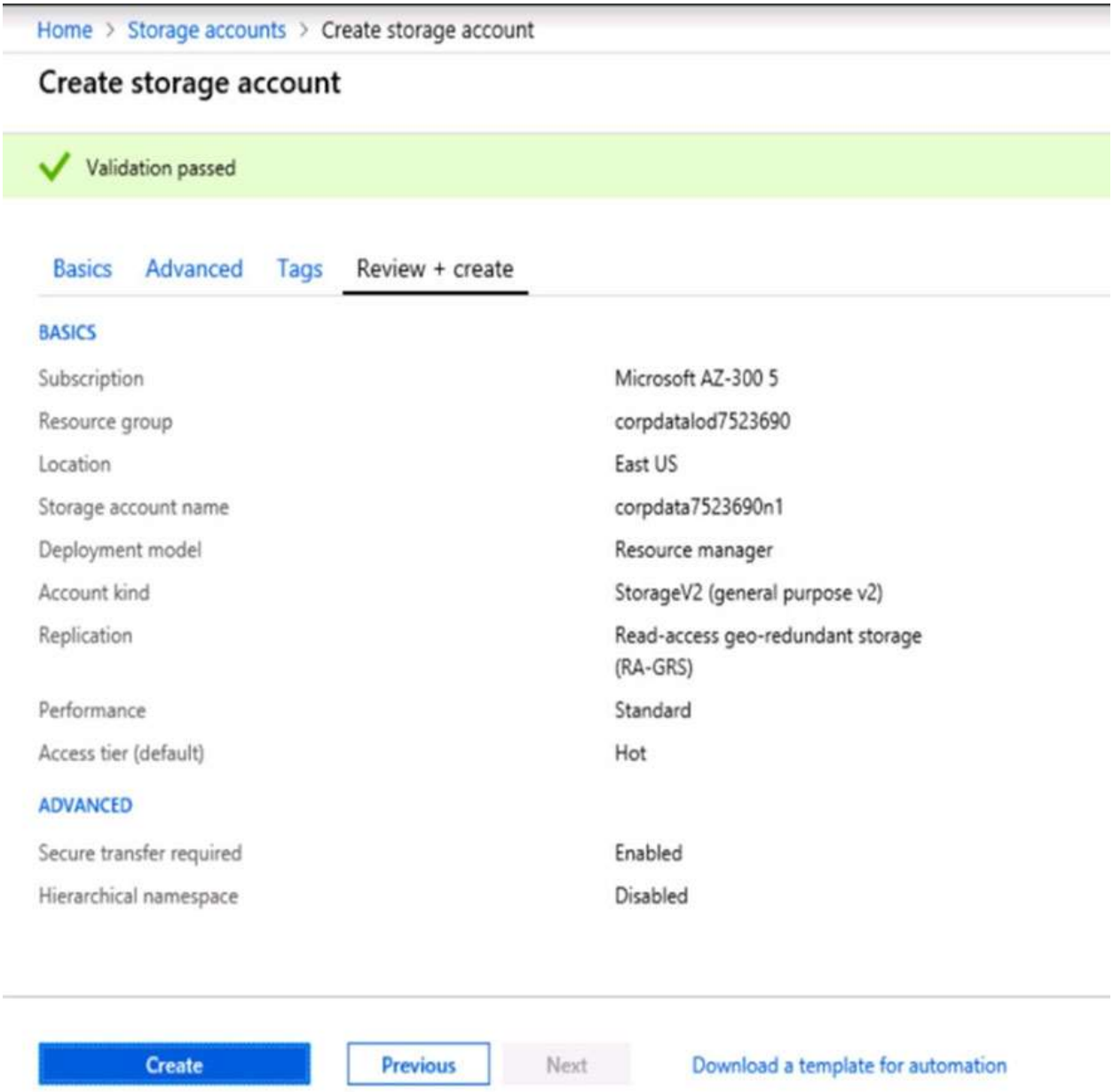


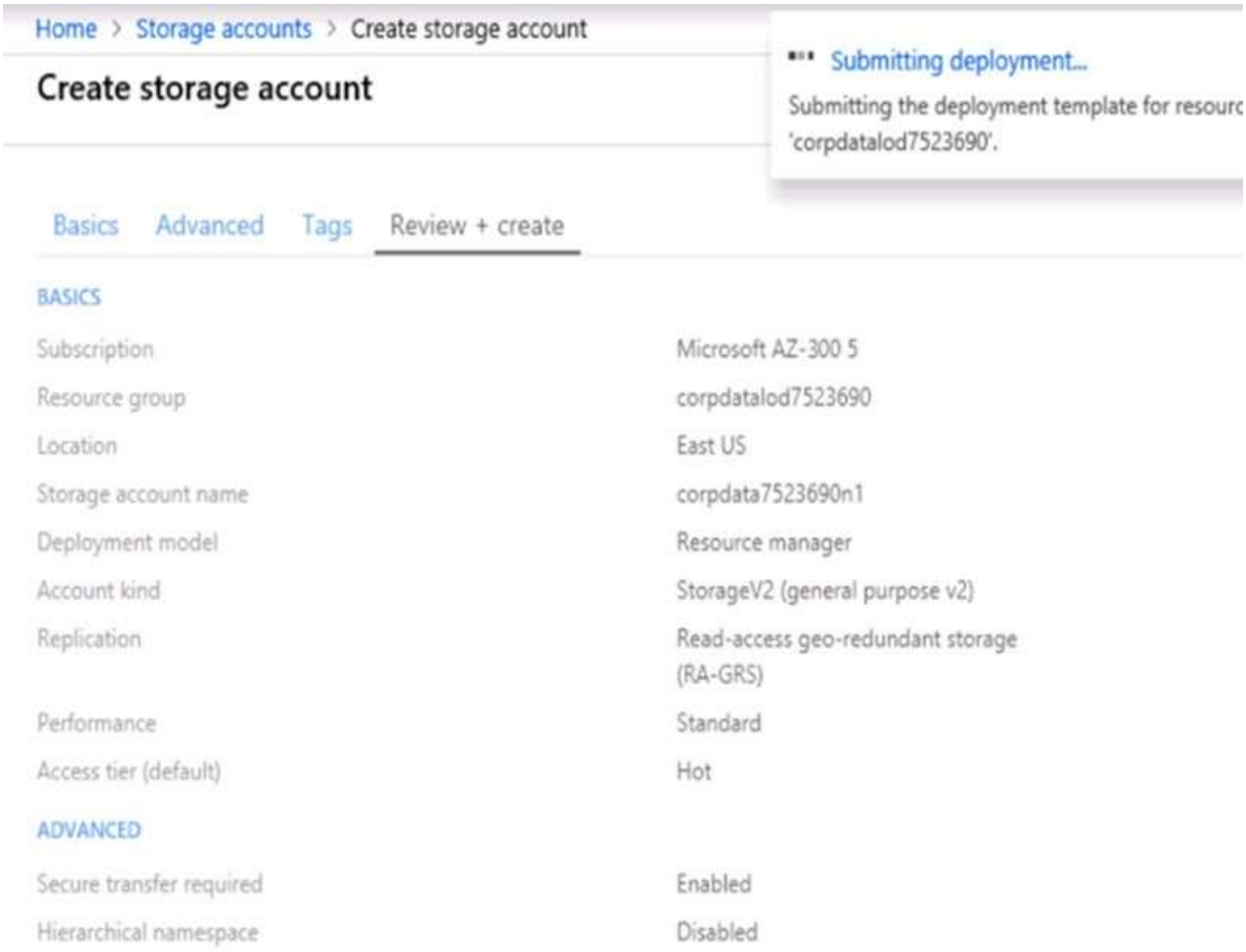
Step 5: Click Create to begin creating the VPN gateway. The settings are validated and you'll see the "Deploying Virtual network gateway" tile on the dashboard.
Creating a gateway can take up to 45 minutes. You may need to refresh your portal page to see the completed status.
References:
https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-vnet-vnet-resource-manager-portal?

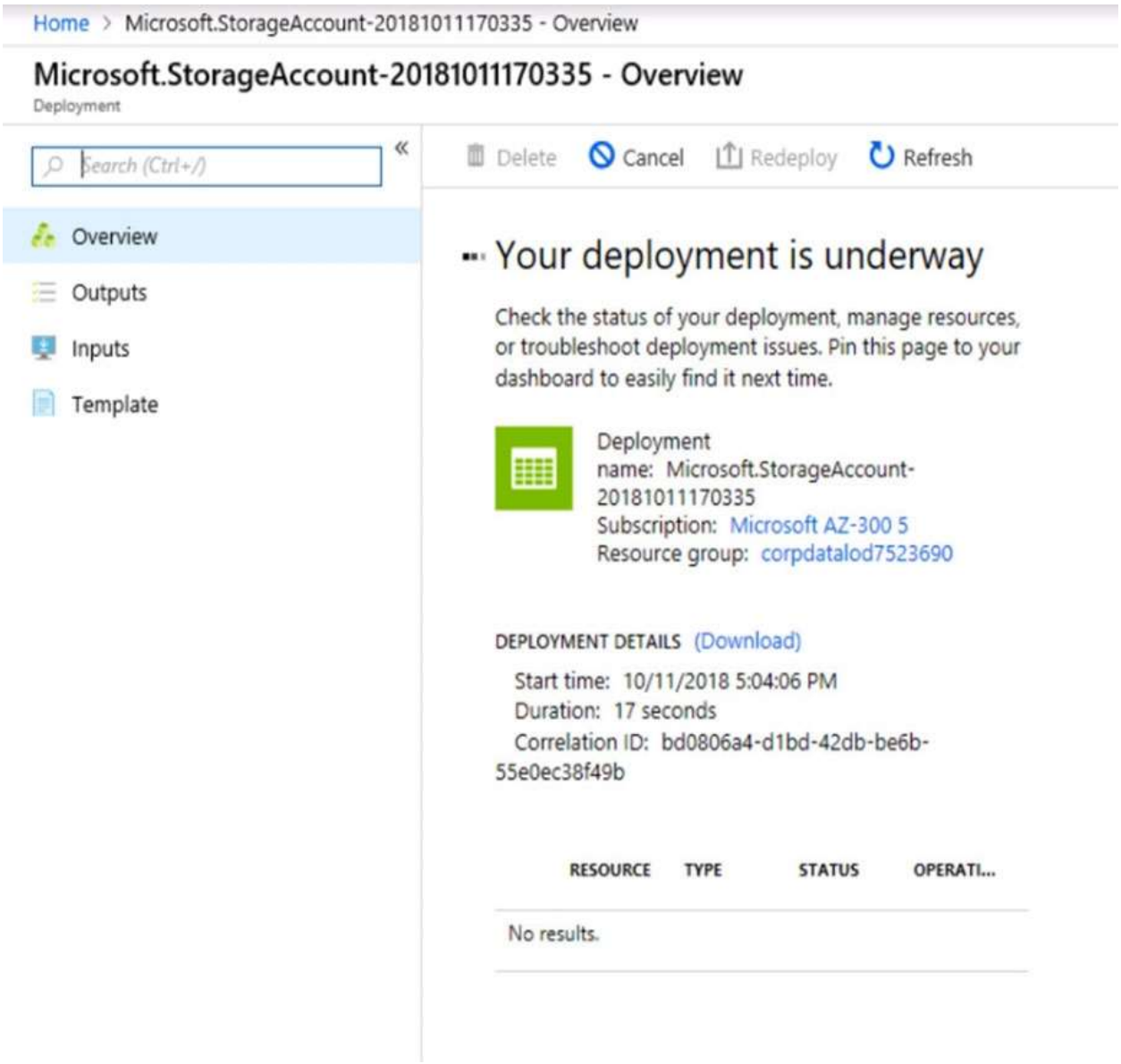
Question #44*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

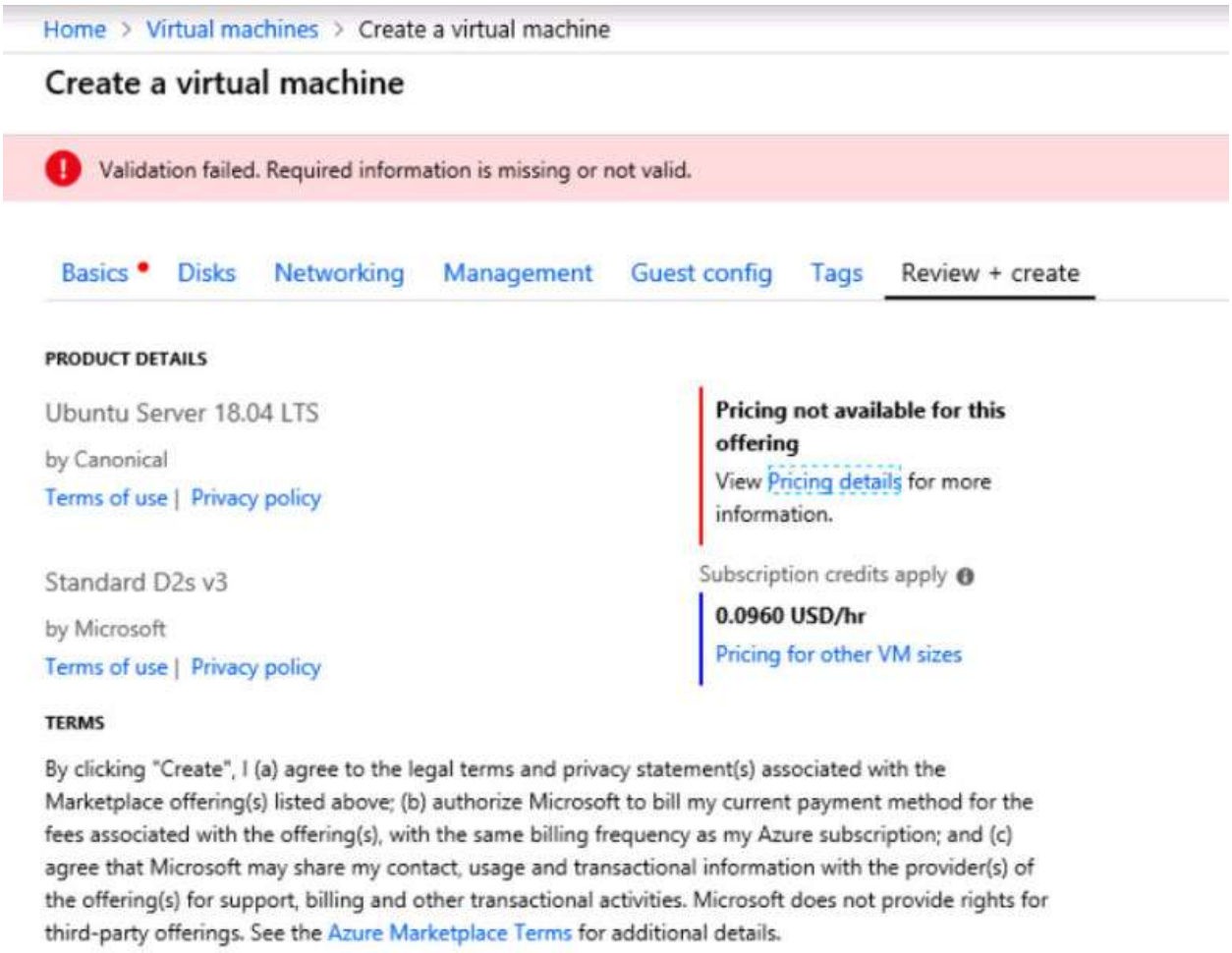












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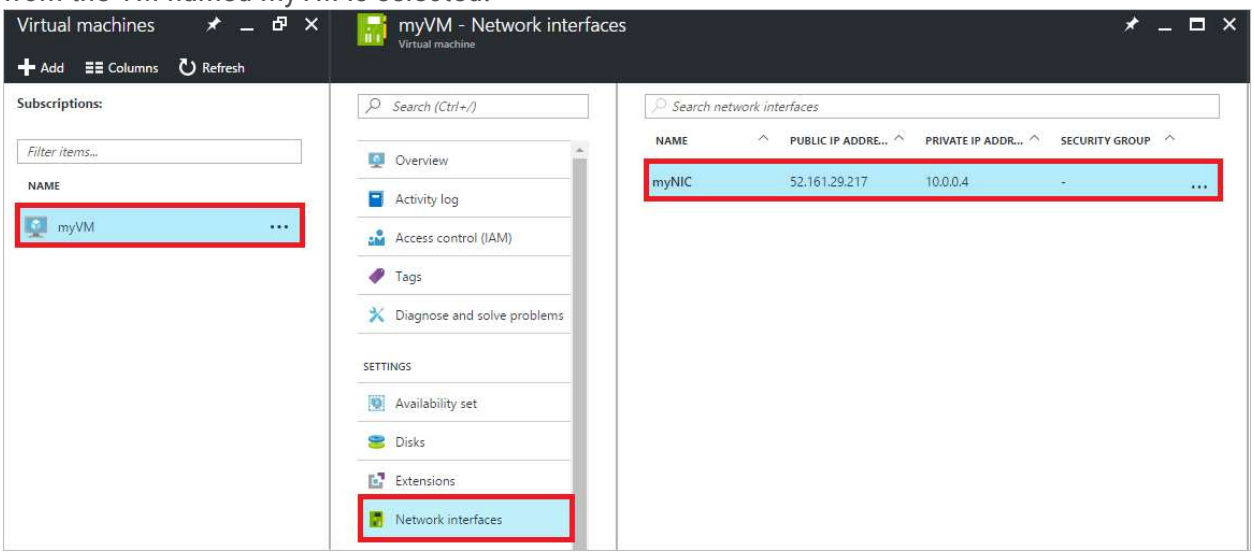
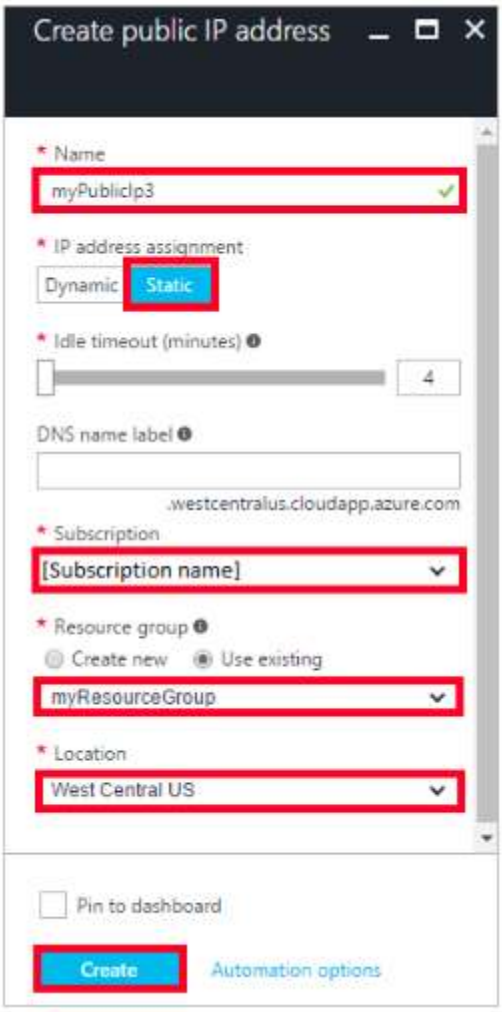
To start the lab -
You may start the lab by clicking the Next button.
You plan to configure VM1 to be accessible from the internet.
You need to add a public IP address to the network interface used by VM1.
What should you do from the Azure portal?

Hide Solution | Discussion 4

Correct Answer: *See solution below.*
You can add private and public IP addresses to an Azure network interface by completing the steps that follow.
Step 1: In Azure portal, click More services > type virtual machines in the filter box, and then click Virtual machines.
Step 2: In the Virtual machines pane, click the VM you want to add IP addresses to. Click Network interfaces in the virtual machine pane that appears, and then select the network interface you want to add the IP addresses to. In the example shown in the following picture, the NIC named myNIC from the VM named myVM is selected:

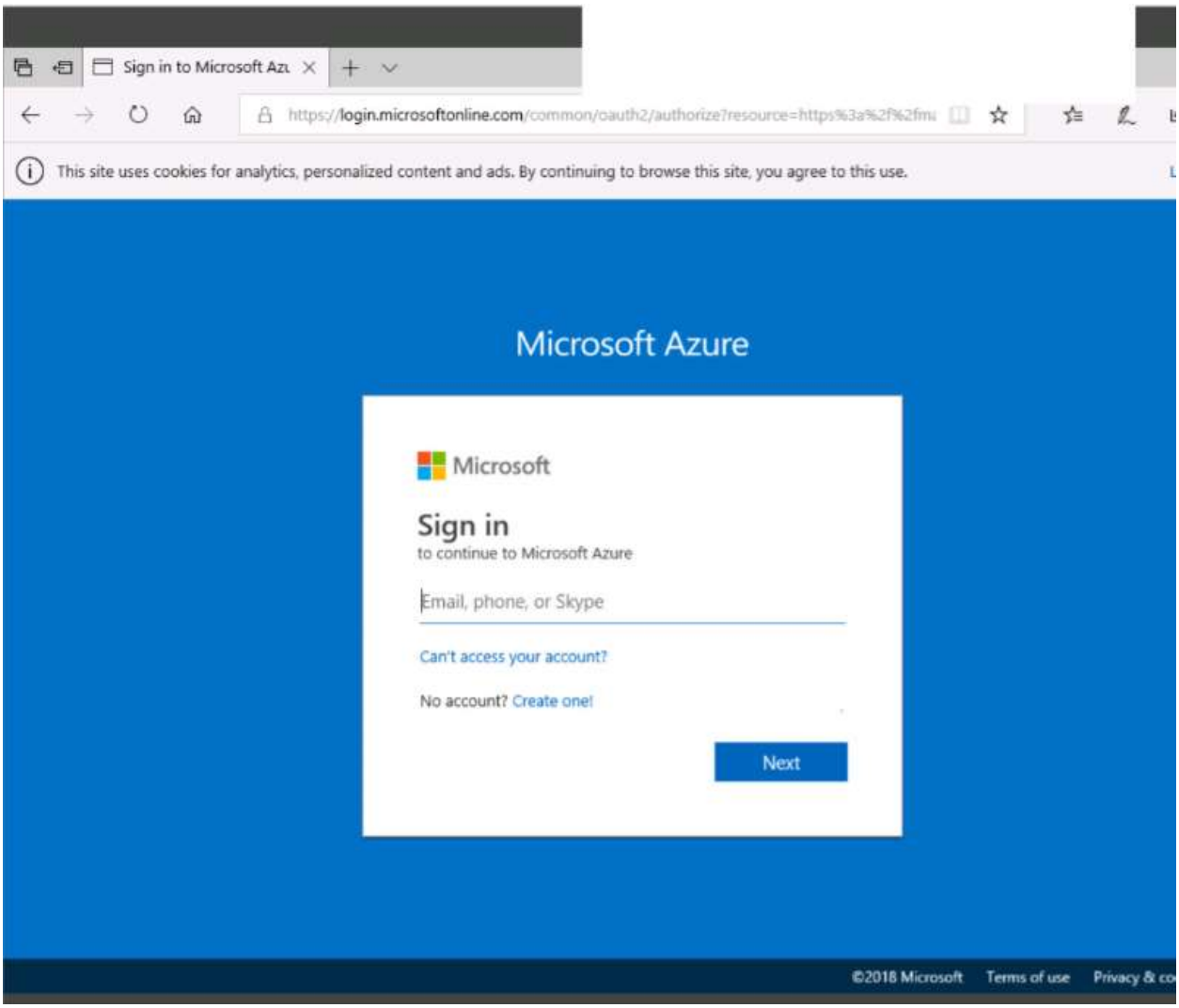


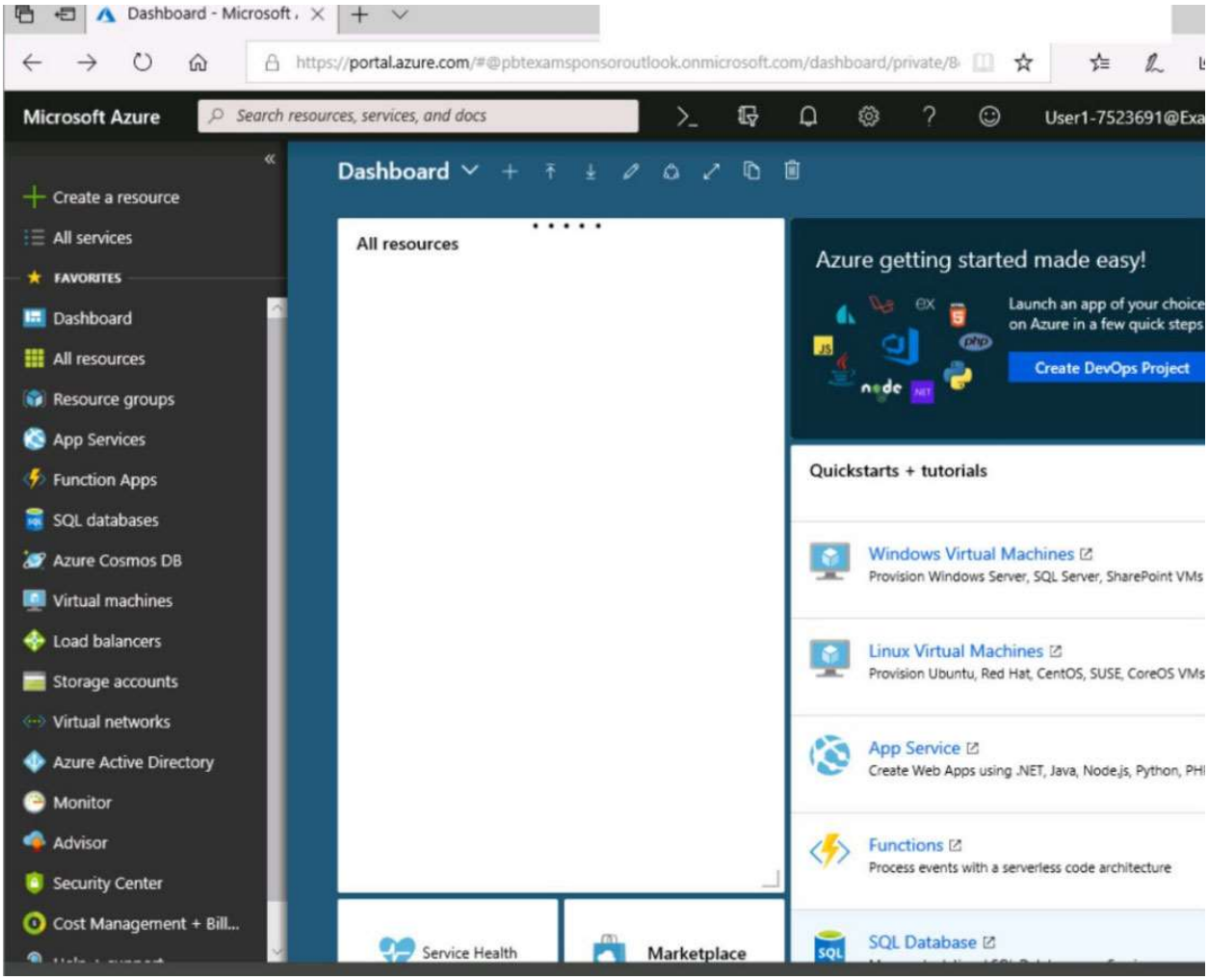
Step 3: In the pane that appears for the NIC you selected, click IP configurations.
Step 4: Click Create public IP address.

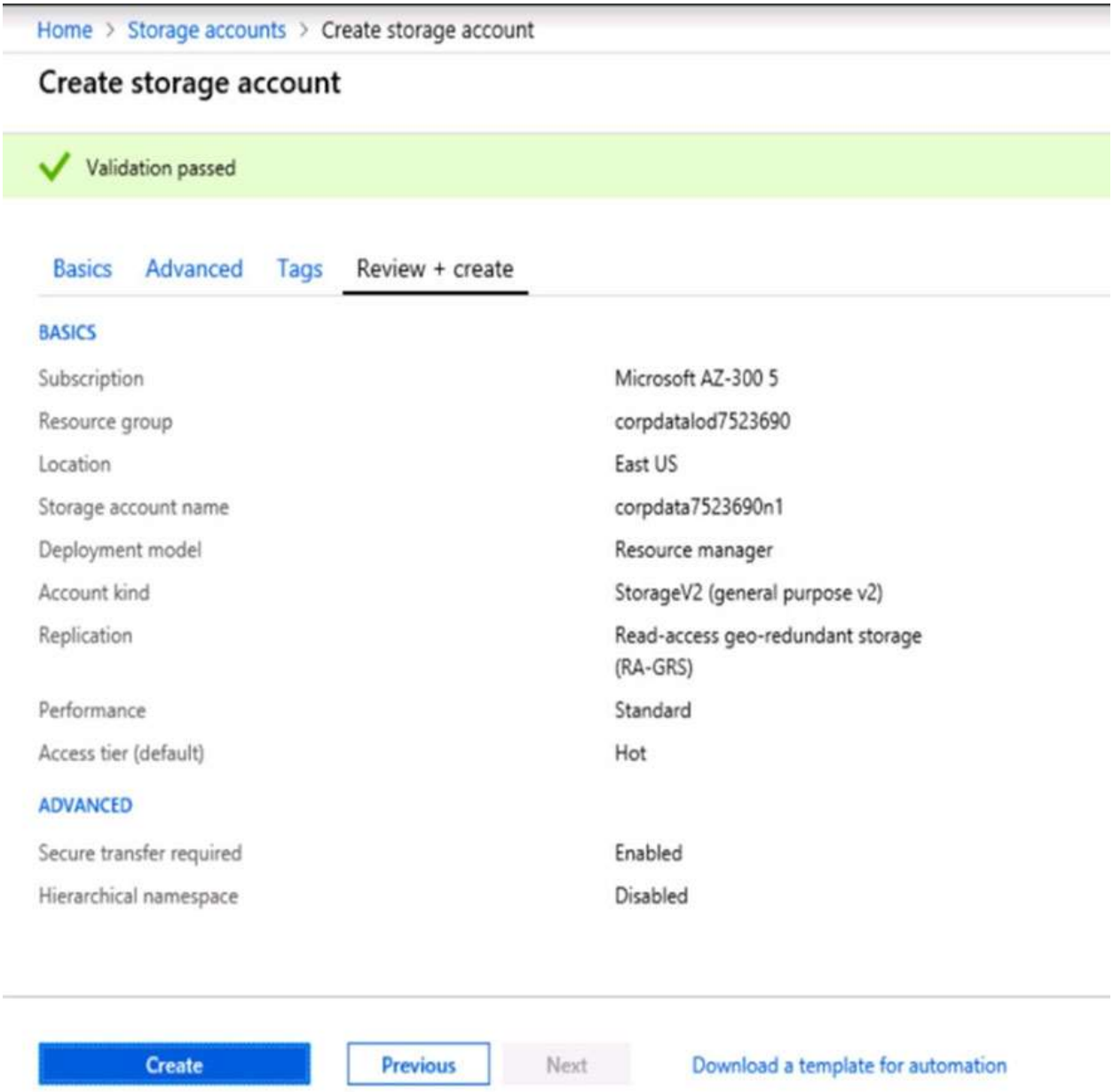


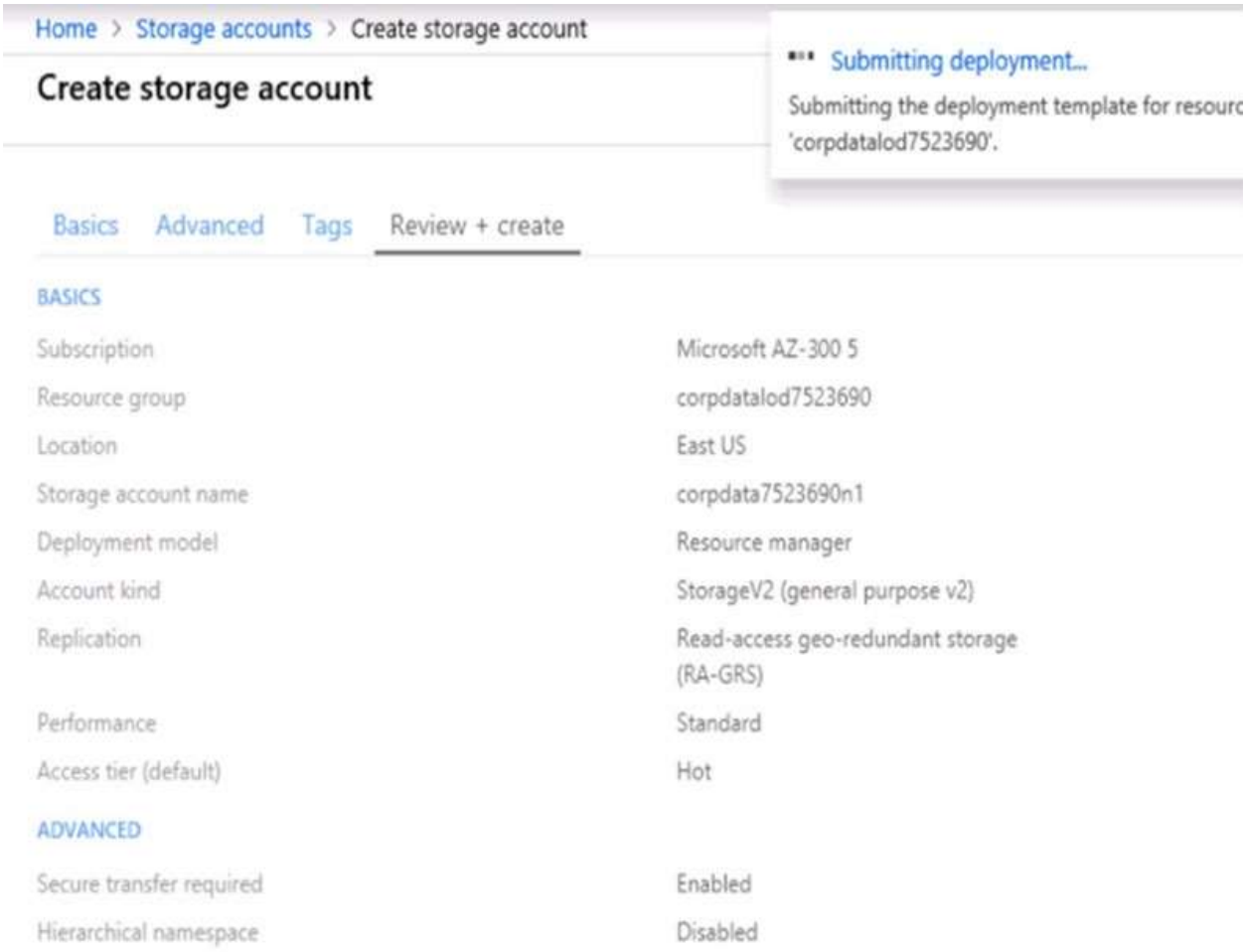
Step 5: In the Create public IP address pane that appears, enter a Name, select an IP address assignment type, a Subscription, a Resource group, and a
Location, then click Create, as shown in the following picture:
References:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-multiple-ip-addresses-portal

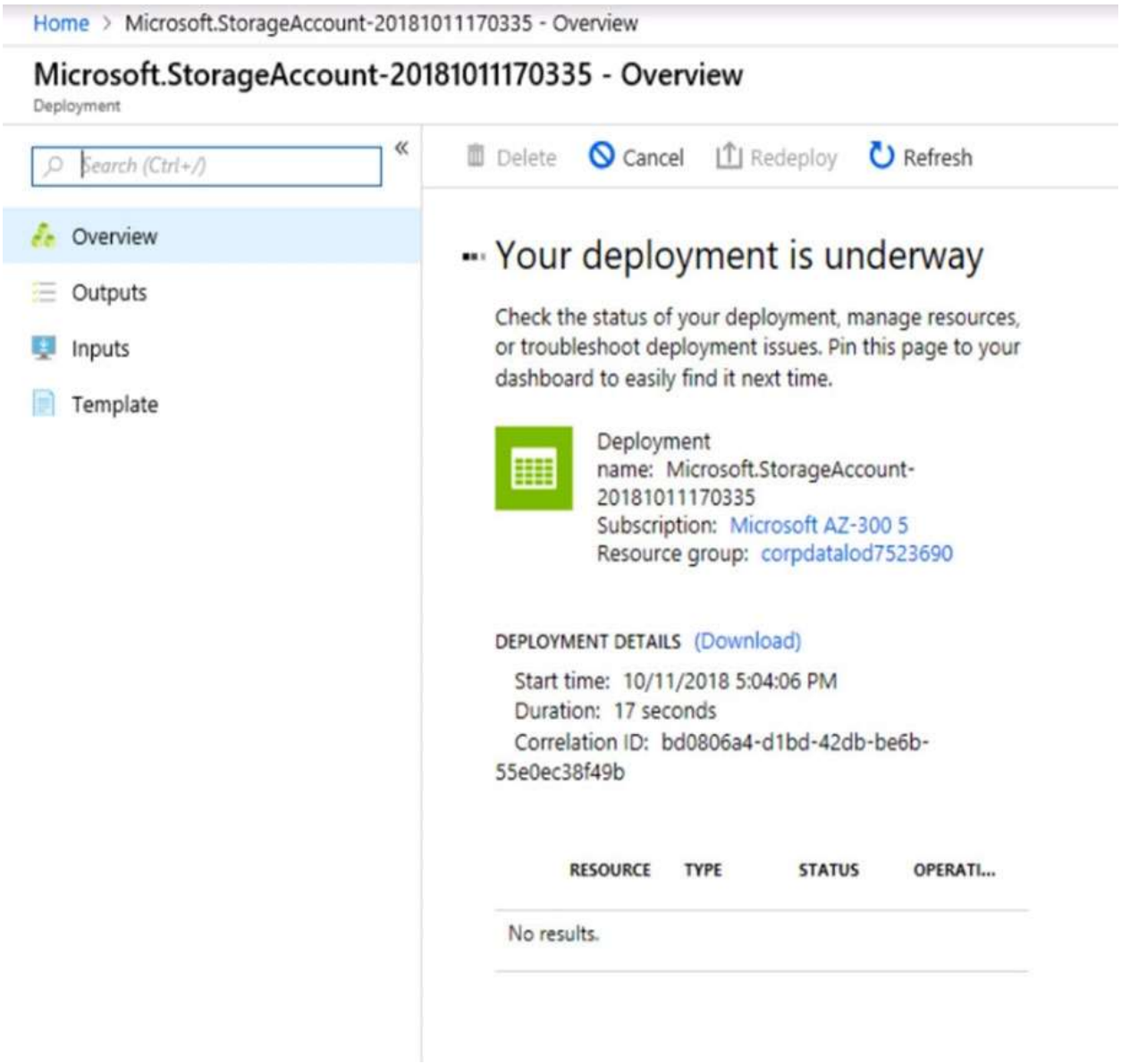
Question #45*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

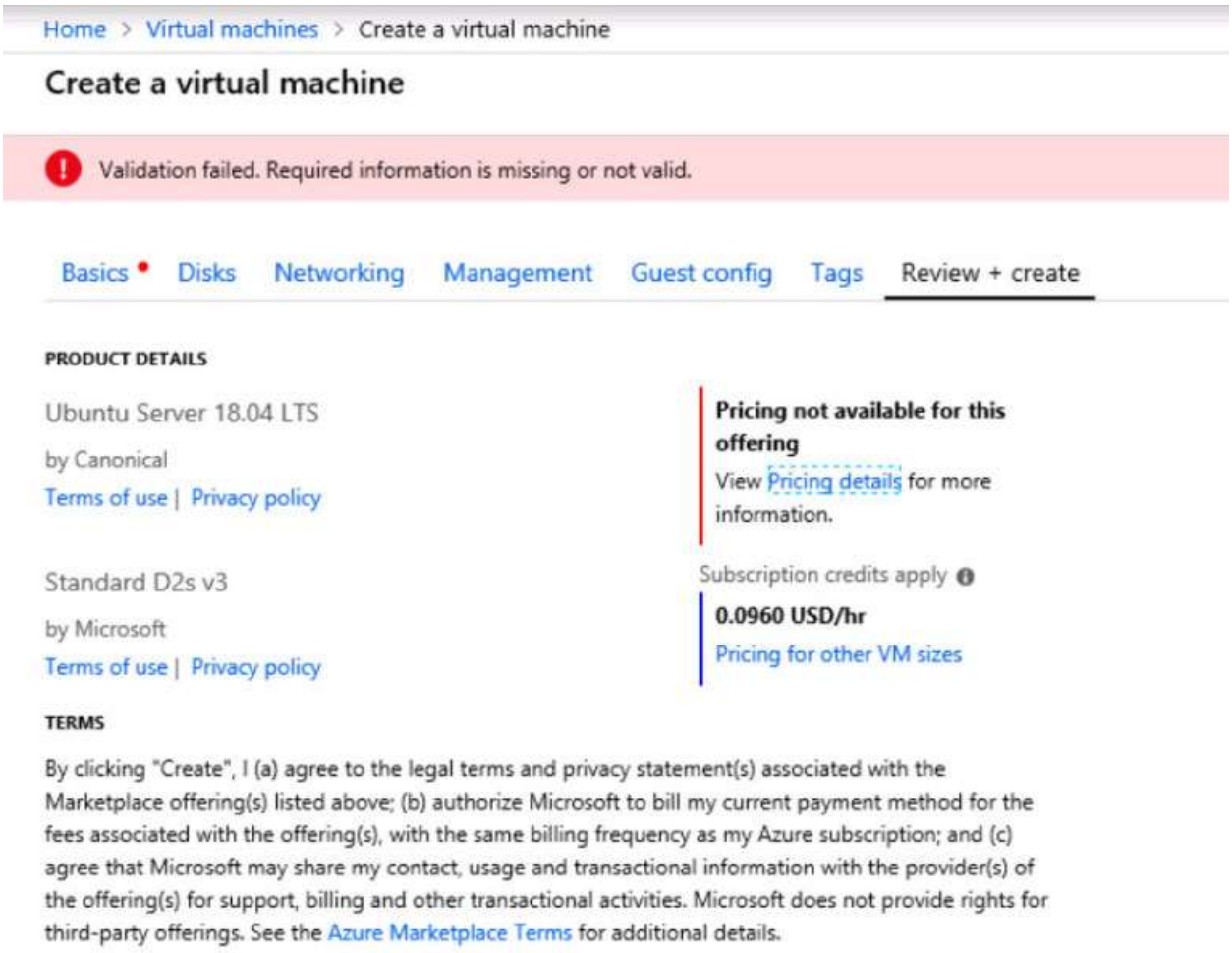












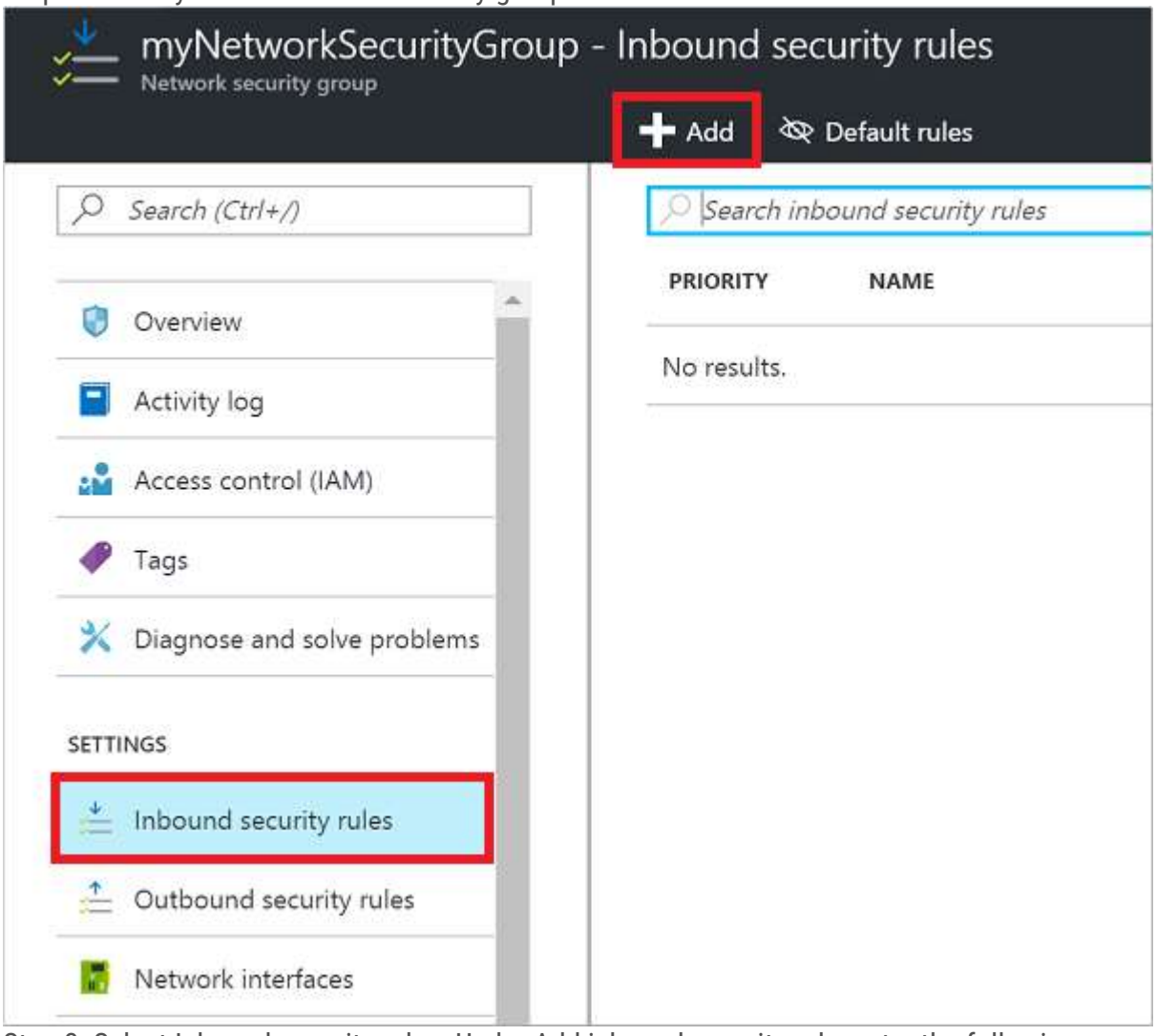
When you are finished performing all the tasks, click the ›€˜Next›€™ button.
Note that you cannot return to the lab once you click the ›€˜Next›€™ button. Scoring occur in the background while you complete the rest of the exam.

Overview -
The following section of the exam is a lab. In this section, you will perform a set of tasks in a live environment. While most functionality will be available to you as it would be in a live environment, some functionality (e.g., copy and paste, ability to navigate to external websites) will not be possible by design.
Scoring is based on the outcome of performing the tasks stated in the lab. In other words, it doesn›€™t matter how you accomplish the task, if you successfully perform it, you will earn credit for that task.
Labs are not timed separately, and this exam may have more than one lab that you must complete. You can use as much time as you would like to complete each lab. But, you should manage your time appropriately to ensure that you are able to complete the lab(s) and all other sections of the exam in the time provided.
Please note that once you submit your work by clicking the Next button within a lab, you will NOT be able to return to the lab.

To start the lab -
You may start the lab by clicking the Next button.
You need to allow RDP connections over TCP port 3389 to VM1 from the Internet. The solutions must prevent connections from the Internet over all other TCP ports.
What should you do from the Azure portal?

Hide Solution | Discussion 4

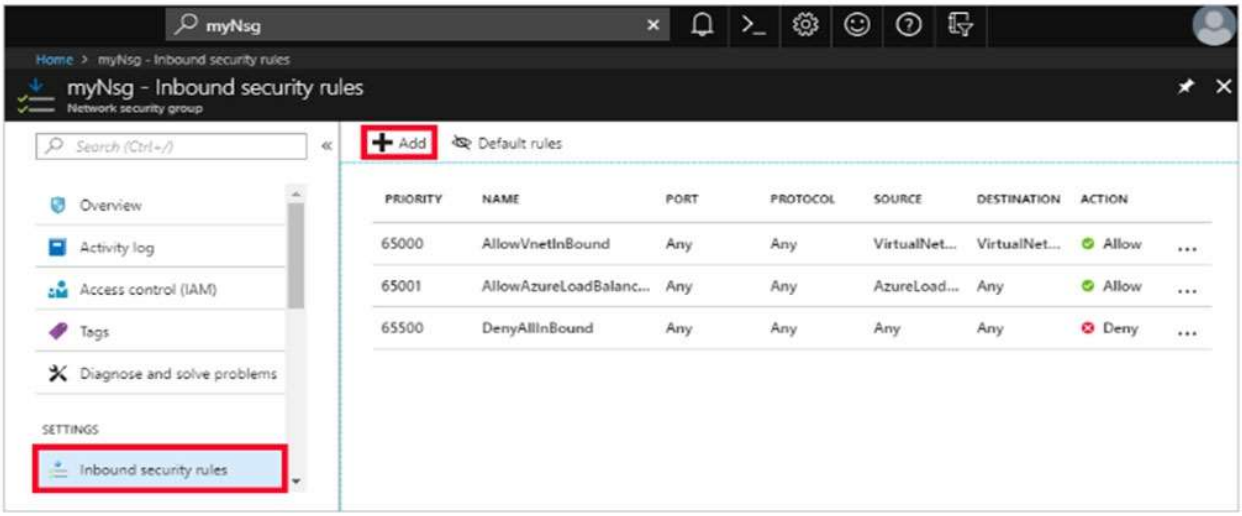
Correct Answer: *See solution below.*
Step 1: Create a new network security group
Step 2: Select your new network security group.



Step 3: Select Inbound security rules. Under Add inbound security rule, enter the following
Destination: Select Network security group, and then select the security group you created previously.

Destination port ranges: 3389 -

Protocol: Select TCP -

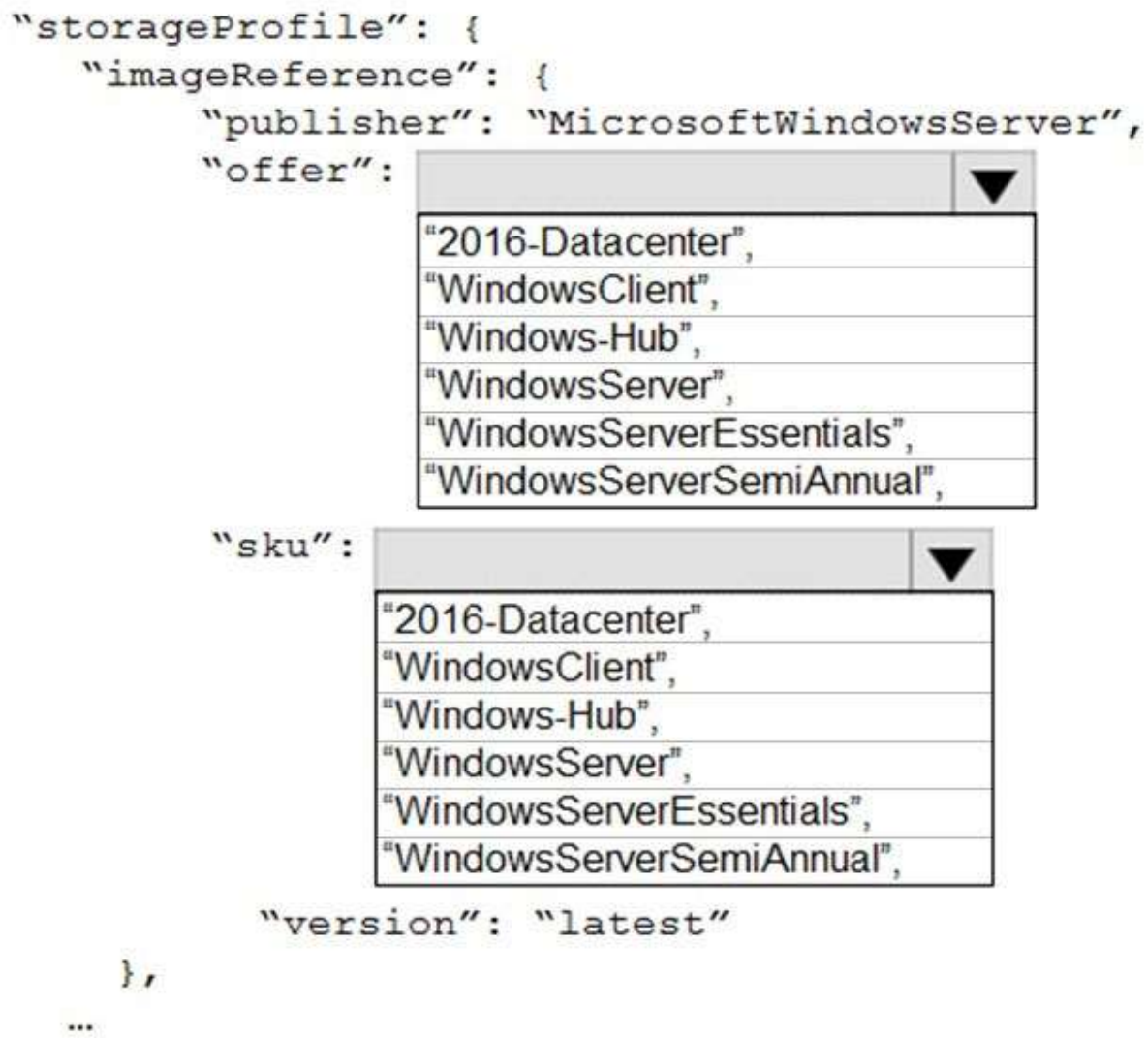


References:
https://docs.microsoft.com/en-us/azure/virtual-network/tutorial-filter-network-traffic

Question #46*Topic 5*
HOTSPOT -
You plan to deploy 20 Azure virtual machines by using an Azure Resource Manager template. The virtual machines will run the latest version of Windows Server
2016 Datacenter by using an Azure Marketplace image.
You need to complete the storageProfile section of the template.
How should you complete the storageProfile section? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

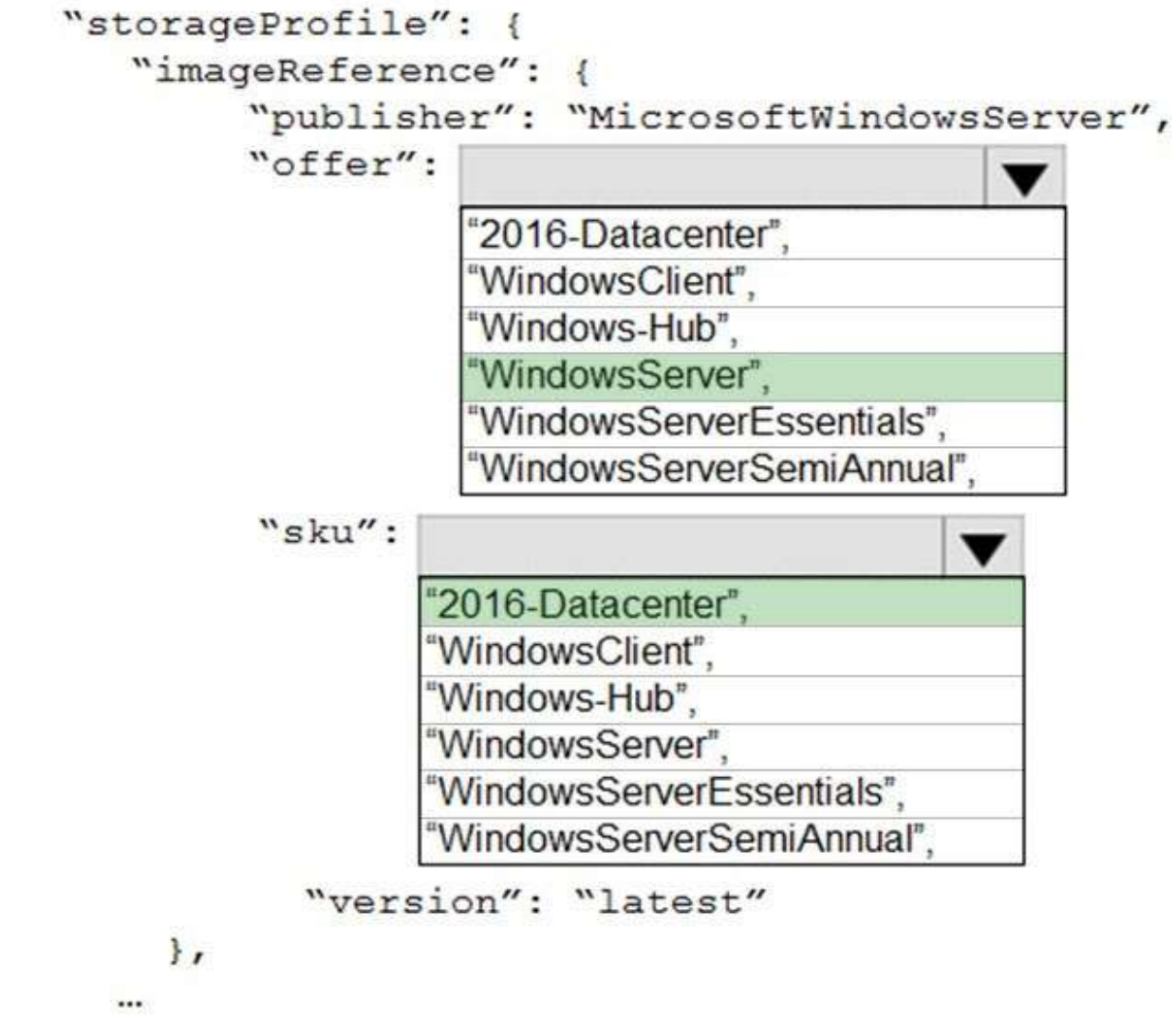
Answer Area



Hide Solution | Discussion 3

Correct Answer:

Answer Area



:€¦
"storageProfile": {
"imageReference": {
"publisher": "MicrosoftWindowsServer",
"offer": "WindowsServer",
"sku": "2016-Datacenter",
"version": "latest"
},
:€¦
References:
https://docs.microsoft.com/en-us/rest/api/compute/virtualmachines/createorupdate

Question #47*Topic 5*

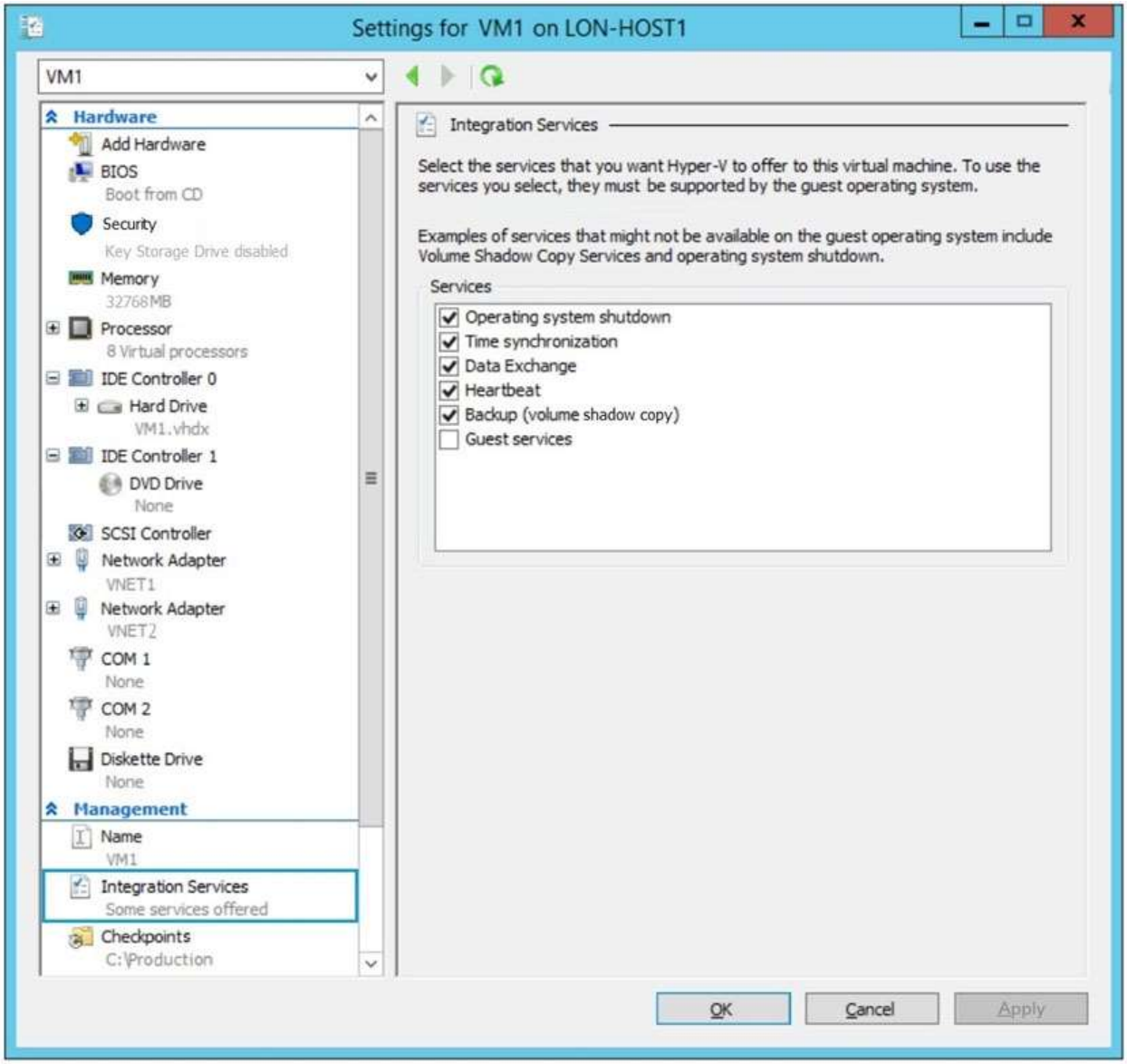
You have an Azure tenant that contains two subscriptions named Subscription1 and Subscription2.
In Subscription1, you deploy a virtual machine named Server1 that runs Windows Server 2016.
Server1 uses managed disks.
You need to move Server1 to Subscription2. The solution must minimize administration effort.
What should you do first?

- A. Create a new virtual machine in Subscription2
- B. In Subscription2, create a copy of the virtual disk
- C. Create a snapshot of the virtual disk
- D. From Azure PowerShell, run the Move-AzureRmResource cmdlet

Hide Solution Discussion 8

Correct Answer: *D*
To move existing resources to another resource group or subscription, use the Move-AzureRmResource cmdlet.
References:
https://docs.microsoft.com/en-in/azure/azure-resource-manager/resource-group-move-resources#move-resources

Question #48*Topic 5*
You have an Azure subscription.
You have an on-premises virtual machine named VM1. The settings for VM1 are shown in the exhibit. (Click the Exhibit tab.)



You need to ensure that you can use the disks attached to VM1 as a template for Azure virtual machines.
What should you modify on VM1?

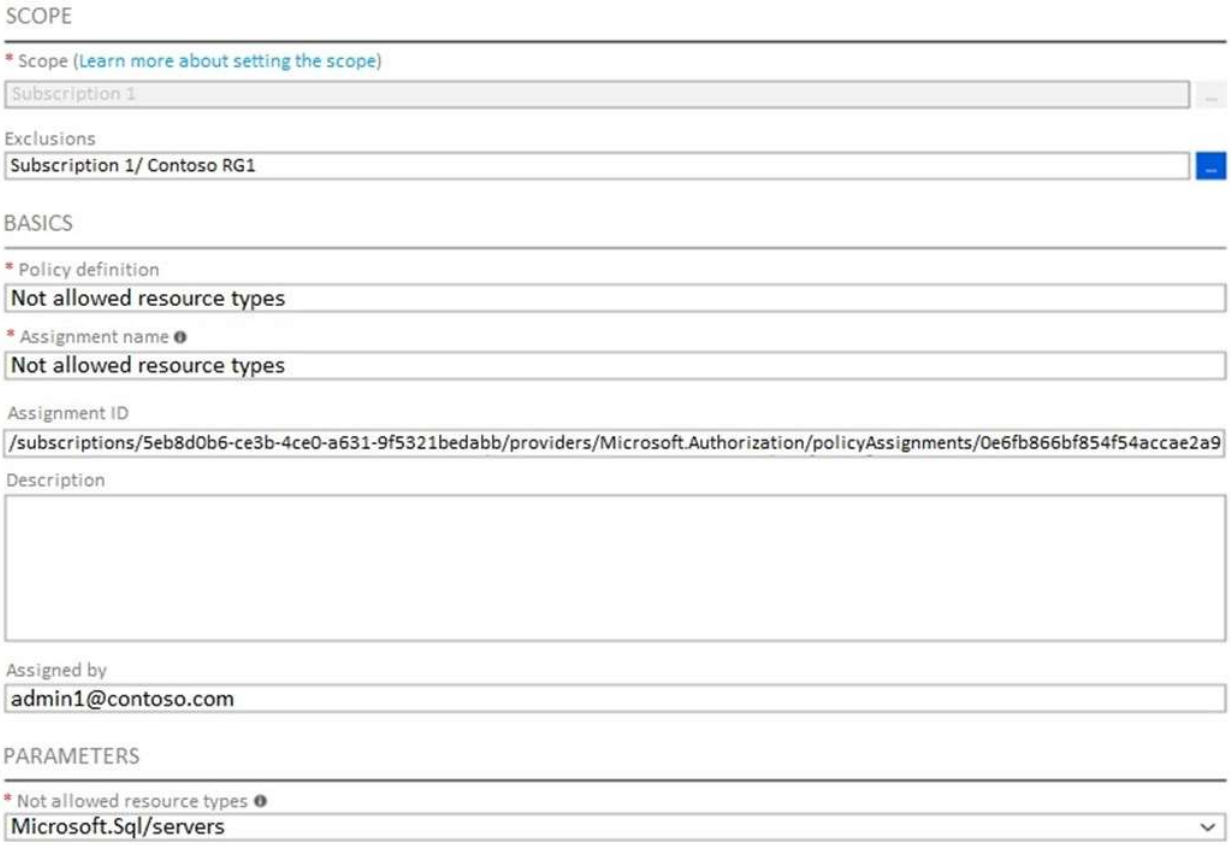
- A. the processor
- B. the memory
- C. Integration Services
- D. the hard drive
- E. the network adapters

Hide Solution | Discussion 7

Correct Answer: *D*
From the exhibit we see that the disk is in the VHDX format.

Before you upload a Windows virtual machines (VM) from on-premises to Microsoft Azure, you must prepare the virtual hard disk (VHD or VHDX). Azure supports only generation 1 VMs that are in the VHD file format and have a fixed sized disk. The maximum size allowed for the VHD is 1,023 GB. You can convert a generation 1 VM from the VHDX file system to VHD and from a dynamically expanding disk to fixed-sized.
References:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/prepare-for-upload-vhd-image?toc=azure virtual-machines windows toc.json

Question #49*Topic 5*
You have an Azure policy as shown in the following exhibit.



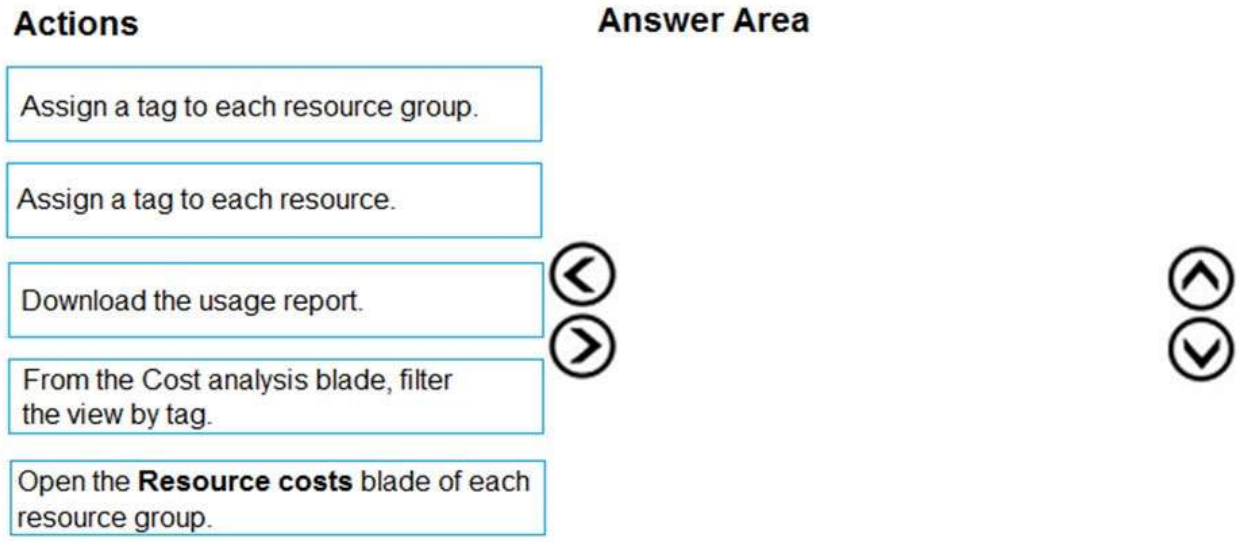
What is the effect of the policy?

- A. You can create Azure SQL servers in any resource group within Subscription 1.
- B. You can create Azure SQL servers in ContosoRG1 only.
- C. You are prevented from creating Azure SQL Servers in ContosoRG1 only.
- D. You are prevented from creating Azure SQL servers anywhere in Subscription 1.

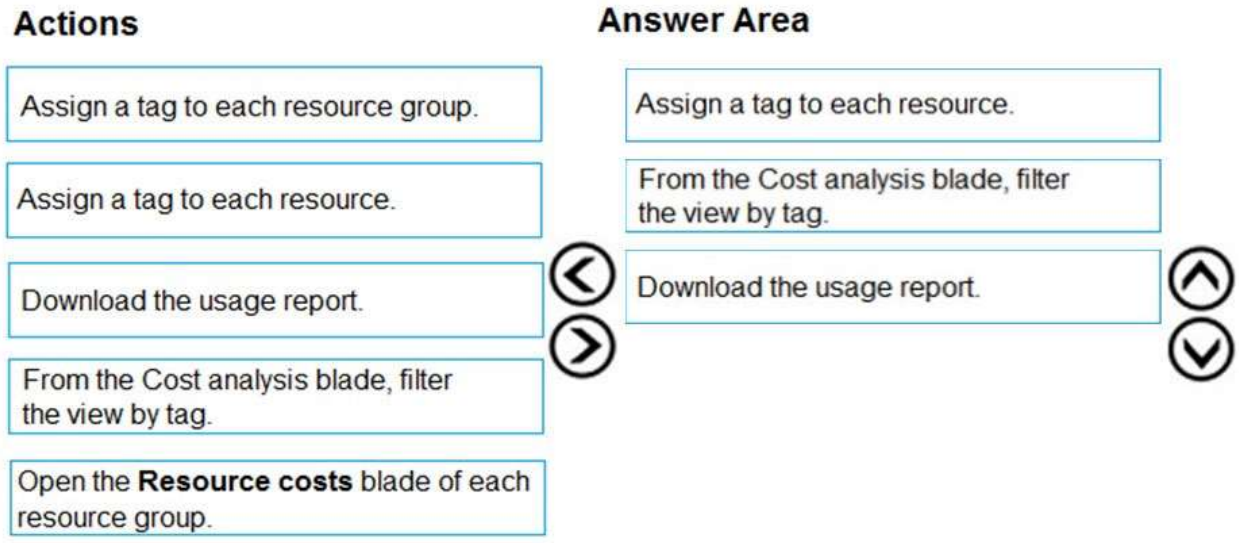
Hide Solution Discussion 4

Correct Answer: *B*
You are prevented from creating Azure SQL servers anywhere in Subscription 1 with the exception of ContosoRG1

Question #50*Topic 5*
DRAG DROP -
You have an Azure subscription that is used by four departments in your company. The subscription contains 10 resource groups. Each department uses resources in several resource groups.
You need to send a report to the finance department. The report must detail the costs for each department.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.
Select and Place:



Hide Solution Discussion 6
Correct Answer:



Box 1: Assign a tag to each resource.

You apply tags to your Azure resources giving metadata to logically organize them into a taxonomy. After you apply tags, you can retrieve all the resources in your subscription with that tag name and value. Each resource or resource group can have a maximum of 15 tag name/value pairs. Tags applied to the resource group are not inherited by the resources in that resource group.
Box 2: From the Cost analysis blade, filter the view by tag
After you get your services running, regularly check how much they're costing you. You can see the current spend and burn rate in Azure portal.
1. Visit the Subscriptions blade in Azure portal and select a subscription.
1. You should see the cost breakdown and burn rate in the popup blade.
2. Click Cost analysis in the list to the left to see the cost breakdown by resource. Wait 24 hours after you add a service for the data to populate.
3. You can filter by different properties like tags, resource group, and timespan. Click Apply to confirm the filters and Download if you want to export the view to a
Comma-Separated Values (.csv) file.
Box 3: Download the usage report
References:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-using-tags
https://docs.microsoft.com/en-us/azure/billing/billing-getting-started

Question #51*Topic 5*
You have an Azure subscription that contains a resource group named RG1. RG1 contains 100 virtual machines.
Your company has three cost centers named Manufacturing, Sales, and Finance.
You need to associate each virtual machine to a specific cost center.
What should you do?

- A. Add an extension to the virtual machines
- B. Modify the inventory settings of the virtual machine
- C. Assign tags to the virtual machines
- D. Configure locks for the virtual machine

Hide Solution Discussion 3
Correct Answer: *C*
You apply tags to your Azure resources to logically organize them into a taxonomy. Each tag consists of a name and a value pair. After you apply tags, you can retrieve all the resources in your subscription with that tag name and value.
Tags enable you to retrieve related resources from different resource groups.
This approach is helpful when you need to organize resources for billing or management.
Reference:
https://docs.microsoft.com/en-us/azure/billing/billing-getting-started
https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-using-tags

Question #52*Topic 5*
HOTSPOT -
Your company has a virtualization environment that contains the virtualization hosts shown in the

following table.

Name	Hypervisor	Guest
Server1	VMware	VM1, VM2, VM3
Server2	Hyper-V	VMA, VMB, VMC

The virtual machines are configured as shown in the following table.

Name	Generation	Memory	Operating system (OS)	OS disk	Data disk
VM1	*Not applicable*	4 GB	Windows Server 2016	200 GB	800 GB
VM2	*Not applicable*	12 GB	Red Hat Enterprise Linux 7.2	3 TB	200 GB
VM3	*Not applicable*	32 GB	Windows Server 2012 R2	200 GB	1 TB
VMA	1	8 GB	Windows Server 2012	100 GB	2 TB
VMB	1	16 GB	Red Hat Enterprise Linux 7.2	150 GB	3 TB
VMC	2	24 GB	Windows Server 2016	500 GB	6 TB

All the virtual machines use basic disks. VM1 is protected by using BitLocker Drive Encryption (BitLocker).
You plan to migrate the virtual machines to Azure by using Azure Site Recovery.
You need to identify which virtual machines can be migrated.
Which virtual machines should you identify for each server? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

The virtual machines that can be migrated from Server1.

- VM1 only
- VM2 only
- VM3 only
- VM1 and VM2 only
- VM1 and VM3 only
- VM1, VM2, and VM3

The virtual machines that can be migrated from Server2.

- VMA only
- VMB only
- VMC only
- VMA and VMB only
- VMA and VMC only
- VMA, VMB, and VMC

Hide Solution | Discussion 9

Correct Answer:

Answer Area

The virtual machines that can be migrated from Server1.	VM1 only VM2 only **VM3 only** VM1 and VM2 only VM1 and VM3 only VM1, VM2, and VM3
The virtual machines that can be migrated from Server2.	VMA only VMB only VMC only **VMA and VMB only** VMA and VMC only VMA, VMB, and VMC

Incorrect Answers:
VM1 cannot be migrates as it has BitLocker enabled.
VM2 cannot be migrates as the OS disk on VM2 is larger than 2TB.
VMC cannot be migrates as the Data disk on VMC is larger than 4TB.
References:
https://docs.microsoft.com/en-us/azure/site-recovery/hyper-v-azure-support-matrix#azure-vm-requirements

Question #53*Topic 5*
HOTSPOT -
You have an Azure subscription that contains multiple resource groups. You create an availability set as shown in the following exhibit.

Create availability set

Basics | Advanced | Tags | Review + create

An Availability Set is a logical grouping capability for isolating VM resources from each other when they're deployed. Azure makes sure that the VMs you place within an Availability Set run across multiple physical servers, compute racks, storage units, and network switches. If a hardware or software failure happens, only a subset of your VMs are impacted and your overall solution stays operational. Availability Sets are essential for building reliable cloud solutions. Learn more about availability sets.

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Azure Pass - Sponsorship

Resource group * ⓘ

RG1

Create new

Instance details

Name * ⓘ

AS1

Region * ⓘ

(Europe) West Europe

Fault domains ⓘ

2

Update domains ⓘ

3

Use managed disks ⓘ

No (Classic) | Yes (Aligned)

You deploy 10 virtual machines to AS1.
Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

During planned maintenance, at least **[answer choice]** (4 / 5 / 6 / 8) virtual machines will be available.

To add another virtual machines to AS1, the virtual machines must'be added to **[answer choice]**. (any region and the RG1 resource group / the West Europe region and any resource group / the West Europe region and the RG1 resource group)

Hide Solution | Discussion 9

Correct Answer:

Answer Area

During planned maintenance, at least **[answer choice]** (4 / 5 / **6** / 8) virtual machines will be available.

To add another virtual machines to AS1, the virtual machines must'be added to **[answer choice]**. (any region and the RG1 resource group / the West Europe region and any resource group / **the West Europe region and the RG1 resource group**)

Box 1: 6 -
Two out of three update domains would be available, each with at least 3 VMs.
An update domain is a group of VMs and underlying physical hardware that can be rebooted at the same time.
As you create VMs within an availability set, the Azure platform automatically distributes your VMs across these update domains. This approach ensures that at least one instance of your application always remains running as the Azure platform undergoes periodic maintenance.
Box 2: the West Europe region and the RG1 resource group
References:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/regions

Question #54*Topic 5*
You have an Azure subscription that contains two storage accounts named storagecontoso1 and storagecontoso2. Each storage account contains a queue service, a table service, and a blob service.
You develop two apps named App1 and App2. You need to configure the apps to store different types of data to all the storage services on both the storage accounts.
How many endpoints should you configure for each app?

- A. 2

- B. 3
- C. 6
- D. 12

Hide Solution | Discussion 39

Correct Answer: *A*

Each app needs a service endpoint in each Storage Account.

References:

https://docs.microsoft.com/en-us/azure/storage/common/storage-network-security

Question #55*Topic 5*

HOTSPOT -

You have an Azure subscription named Subscription1.

You have a virtualization environment that contains the virtualization servers in the following table.

Name	Hypervisor	Run virtual machine
Server1	Hyper-V	VM1, VM2, VM3
Server2	VMware	VMA, VMB, VMC

The virtual machines are configured as shown in the following table.

Name	Generation	Memory	Operating system(OS) disk	Data disk	OS
VM1	1	4 GB	200 GB	800 GB	Windows Server 2012 R2
VM2	1	12 GB	3 TB	200 GB	Red Hat Enterprise Linux 7.2
VM3	2	32 GB	100 GB	1 TB	Windows Server 2016
VMA	*Not applicable*	8 GB	100 GB	2 TB	Windows Server 2012 R2
VMB	*Not applicable*	16 GB	150 GB	1 TB	Red Hat Enterprise Linux 7.2
VMC	*Not applicable*	24 GB	500 GB	6 TB	Windows Server 2016

All the virtual machines use basic disks. VM1 is protected by using BitLocker Drive Encryption (BitLocker).

You plan to use Azure Site Recovery to migrate the virtual machines to Azure.

Which virtual machines can you migrate? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The virtual machines that can be migrated from Server1.	VM1 only VM2 only VM3 only VM1 and VM2 only VM1 and VM3 only VM1, VM2, and VM3
The virtual machines that can be migrated from Server2.	VMA only VMB only VMC only VMA and VMB only VMA and VMC only VMA, VMB, and VMC

Hide Solution | Discussion 17

Correct Answer:

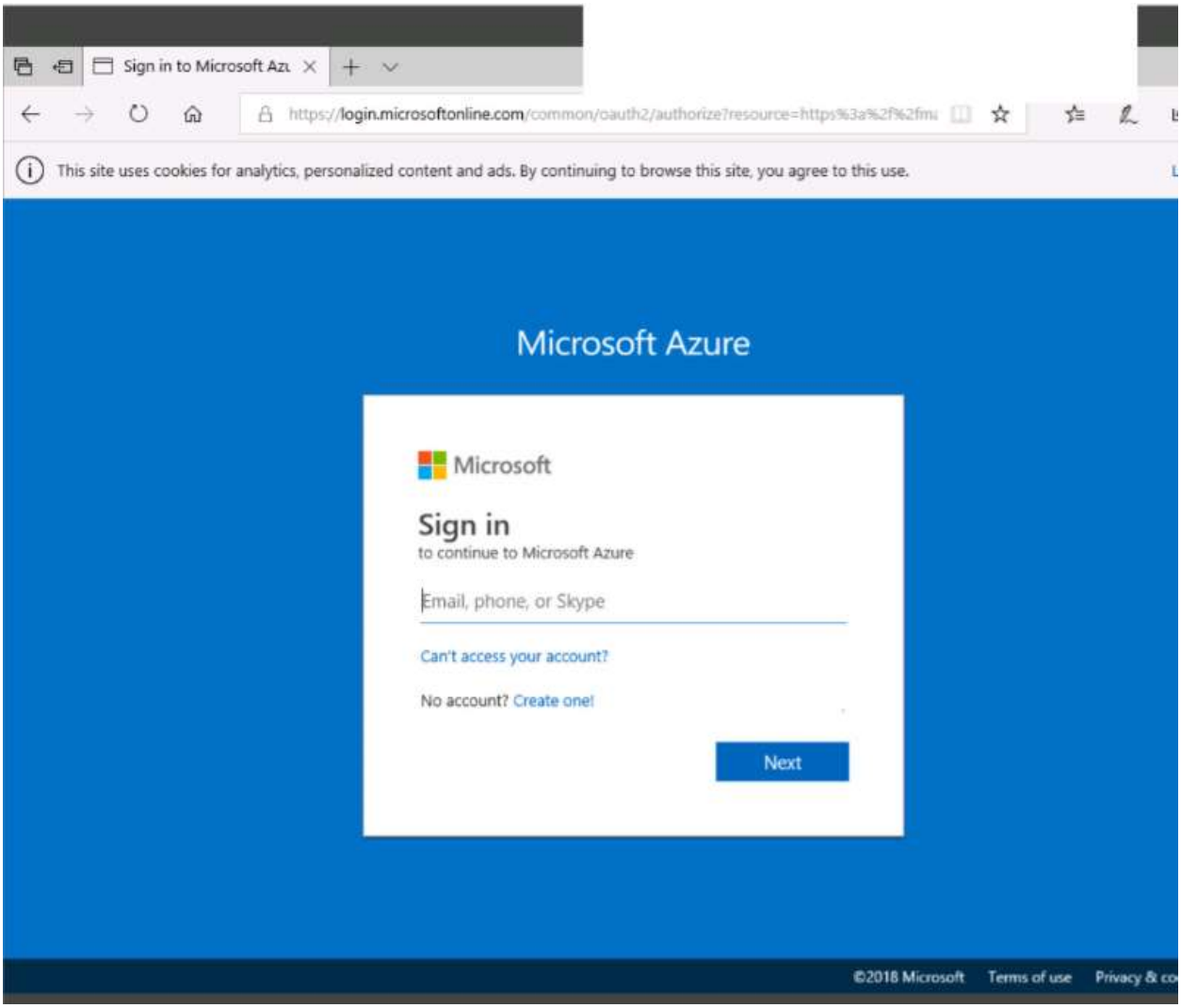
Answer Area

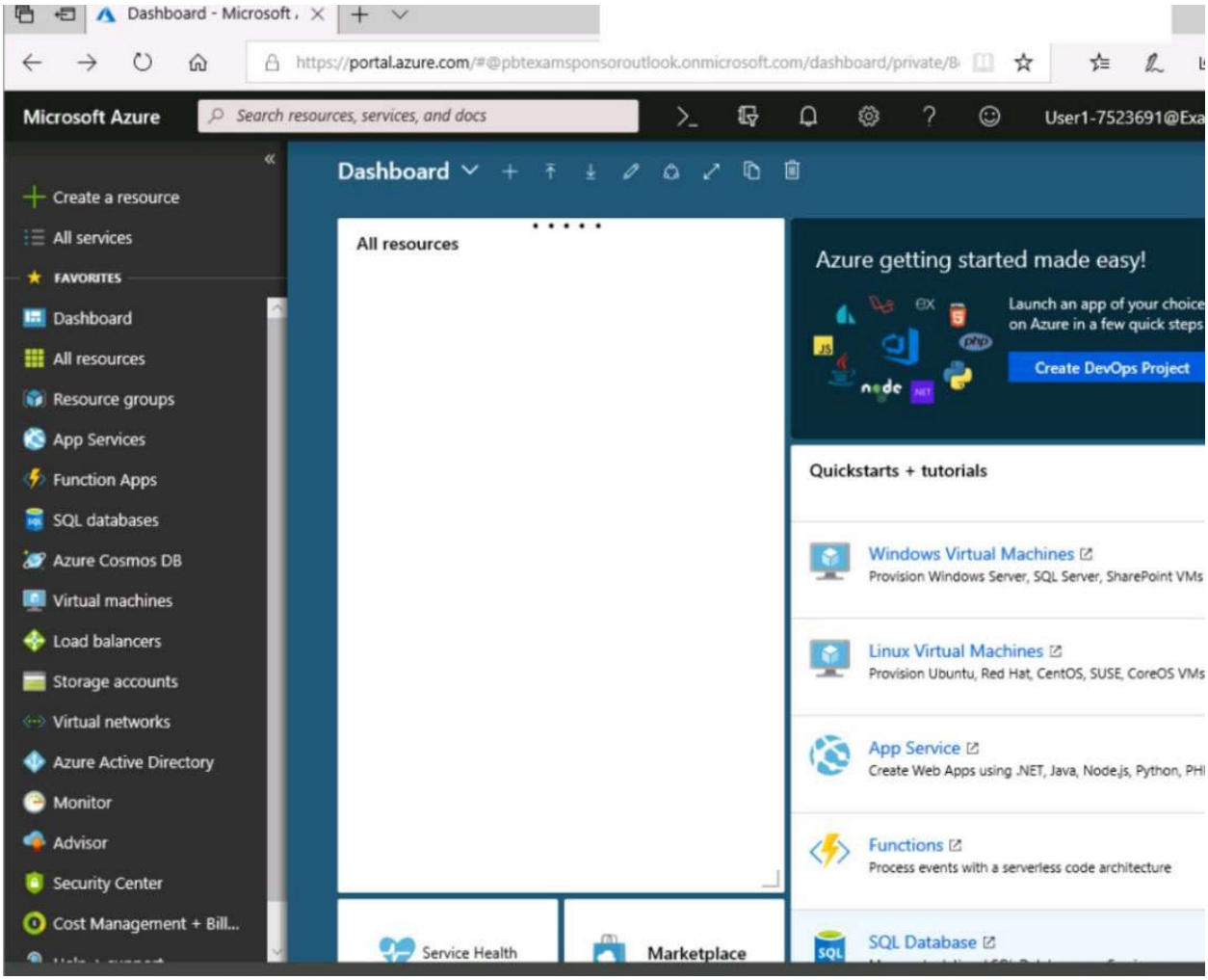
The virtual machines that can be migrated from Server1.	VM1 only VM2 only **VM3 only** VM1 and VM2 only VM1 and VM3 only VM1, VM2, and VM3
The virtual machines that can be migrated from Server2.	VMA only VMB only VMC only **VMA and VMB only** VMA and VMC only VMA, VMB, and VMC

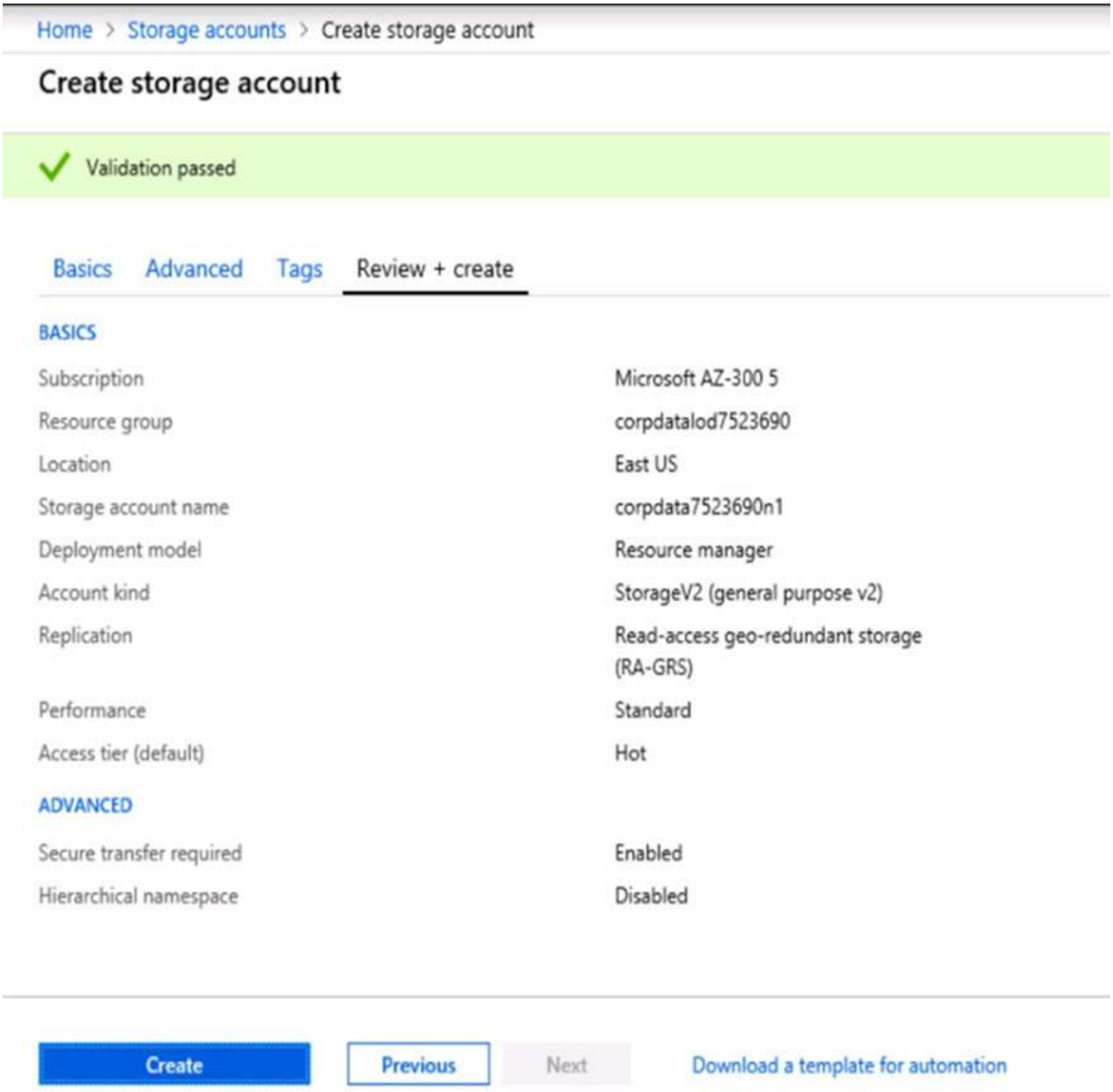
Incorrect Answers:
VM1 cannot be migrates as it has BitLocker enabled.
VM2 cannot be migrates as the OS disk on VM2 is larger than 2TB.
VMC cannot be migrates as the Data disk on VMC is larger than 4TB.

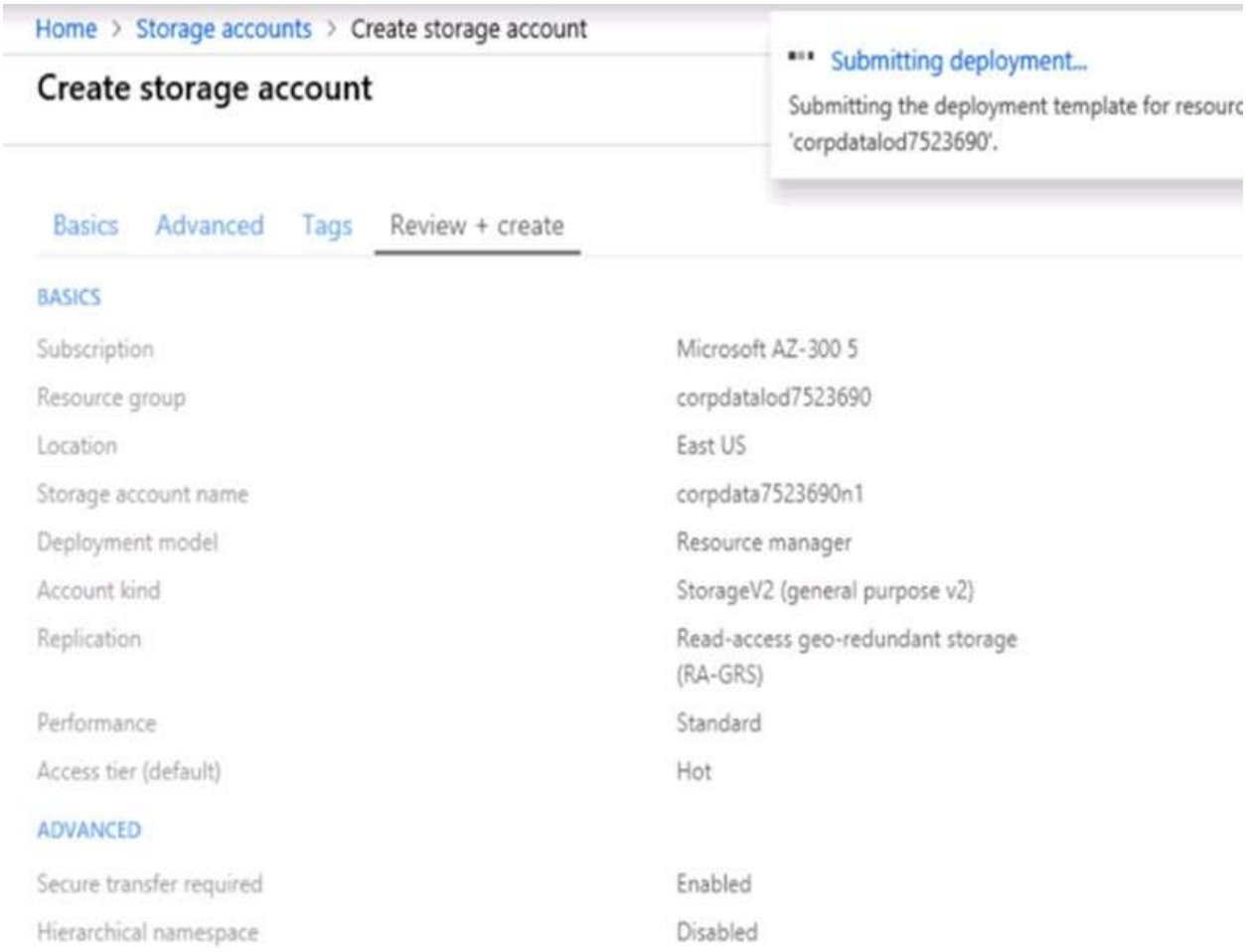
References:
https://docs.microsoft.com/en-us/azure/site-recovery/hyper-v-azure-support-matrix#azure-vm-requirements

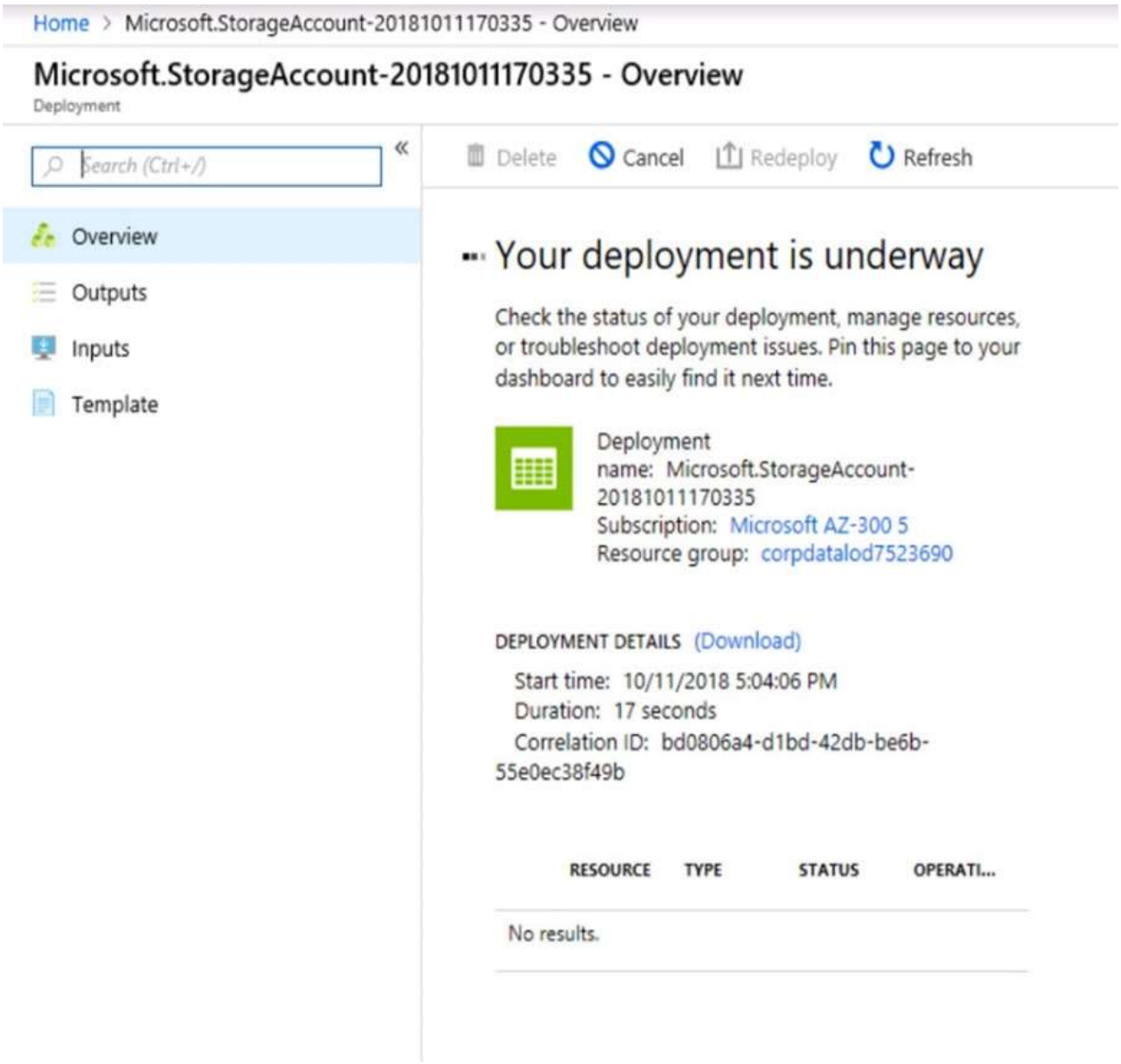
Question #56*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

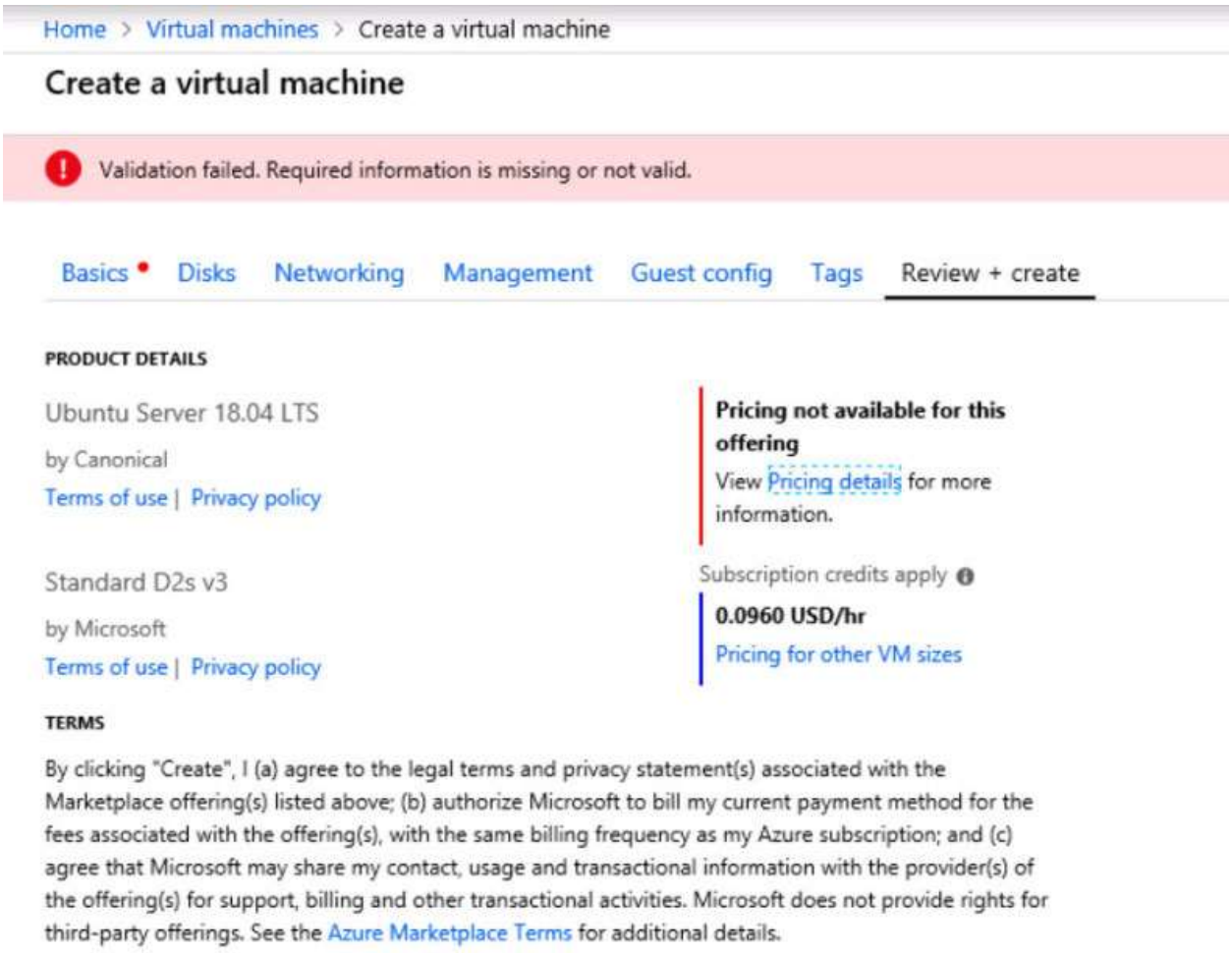












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
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Overview -
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Scoring is based on the outcome of performing the tasks stated in the lab. In other words, it doesn›€™t matter how you accomplish the task, if you successfully perform it, you will earn credit for that task.
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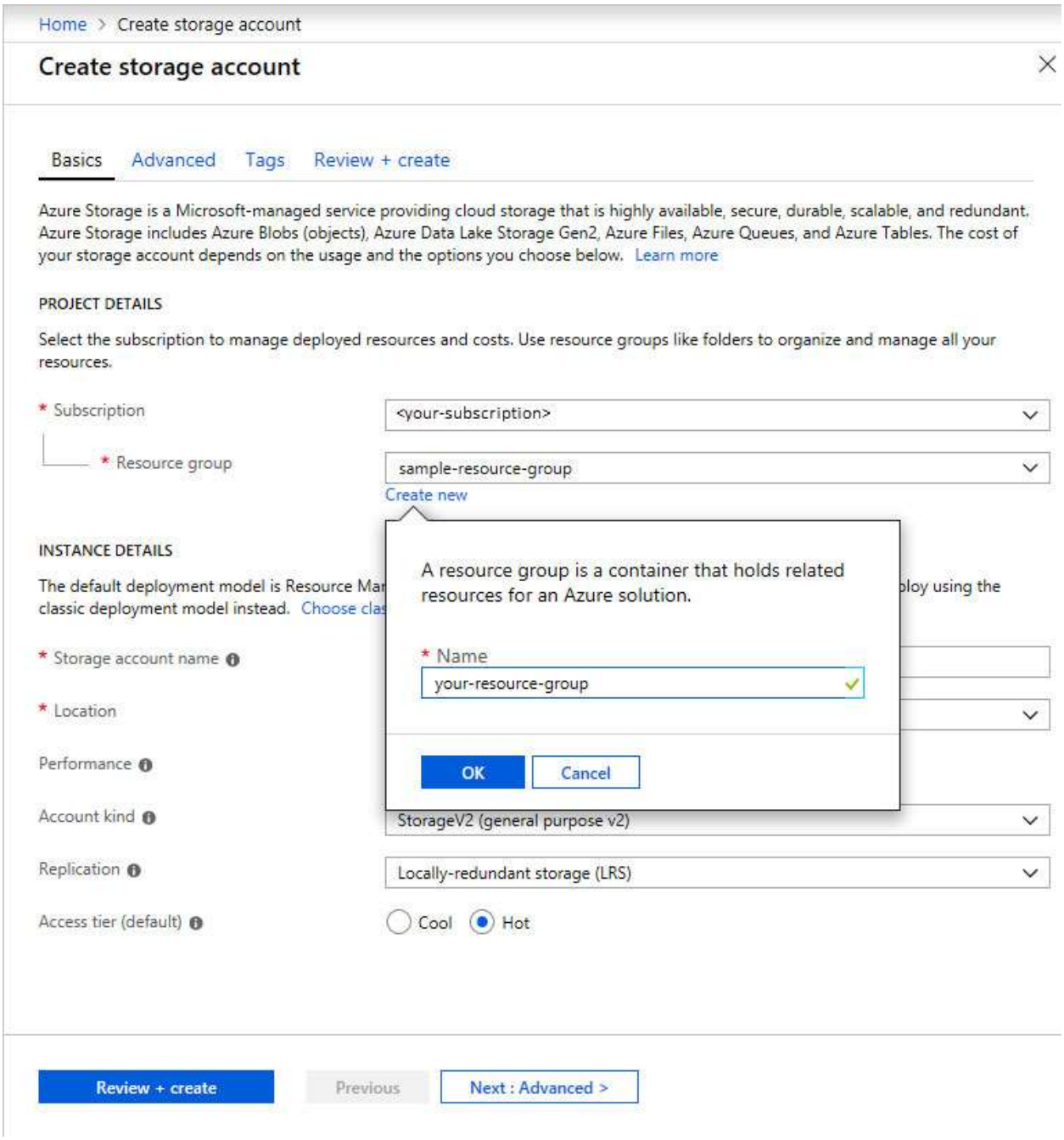
Please note that once you submit your work by clicking the Next button within a lab, you will NOT be able to return to the lab.

To start the lab -
You may start the lab by clicking the Next button.
You plan to migrate a large amount of corporate data to Azure Storage and to back up files stored on old hardware to Azure Storage.
You need to create a storage account named corpdatalod7523690n2, in the corpdatalod7523690 resource group. The solution must meet the following requirements: corpdatalod7523690n2 must be able to host the virtual disk files for Azure virtual machines
The cost of accessing the files must be minimized
Replication costs must be minimized
What should you do from the Azure portal?

Hide Solution Discussion 10

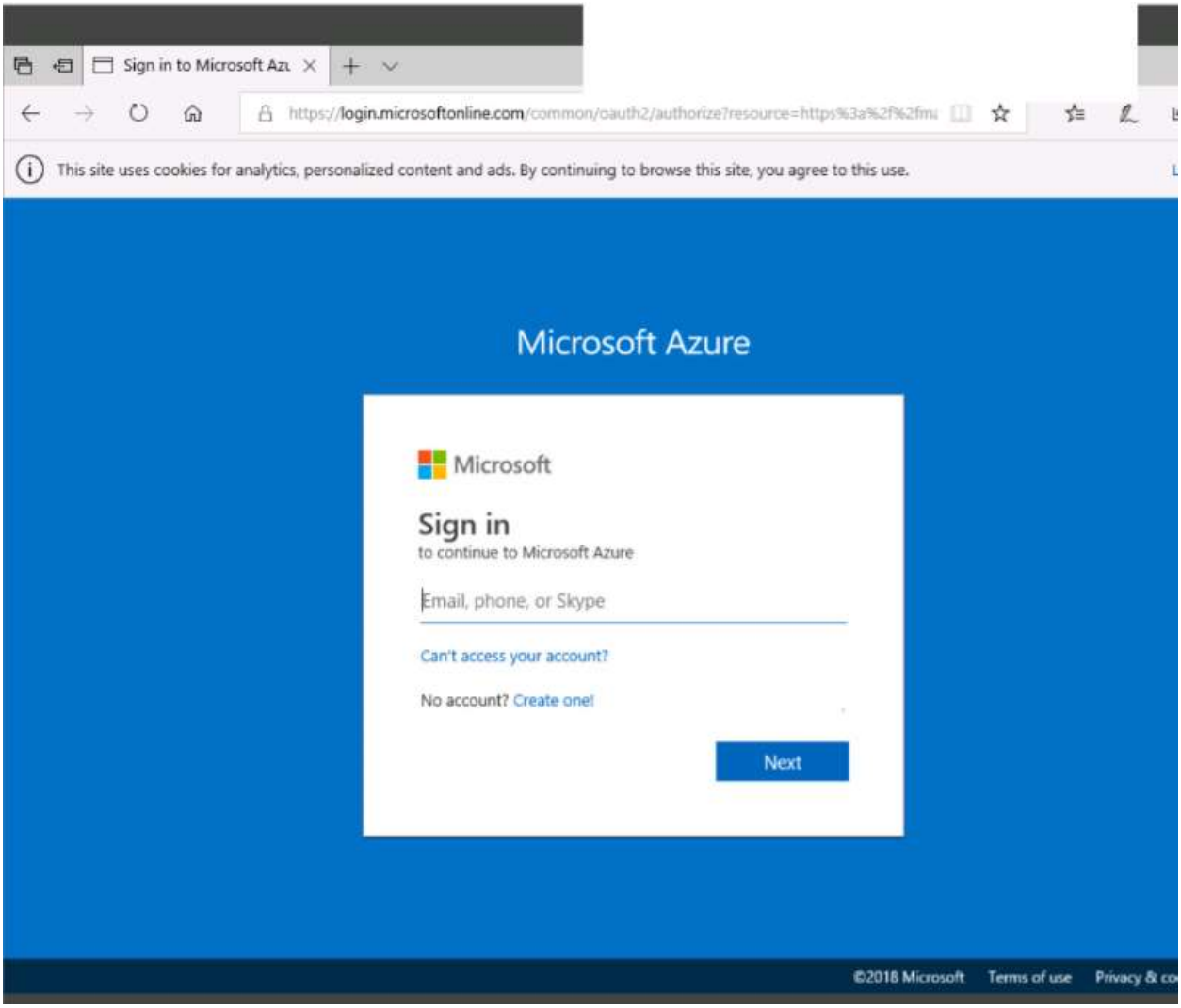
Correct Answer: *See solution below.*
Step 1: In the Azure portal, click All services. In the list of resources, type Storage Accounts. As you begin typing, the list filters based on your input. Select
Storage Accounts.
Step 2: On the Storage Accounts window that appears, choose Add.
Step 3: Select the subscription in which to create the storage account.
Step 4: Under the Resource group field, select corpdatalod7523690.

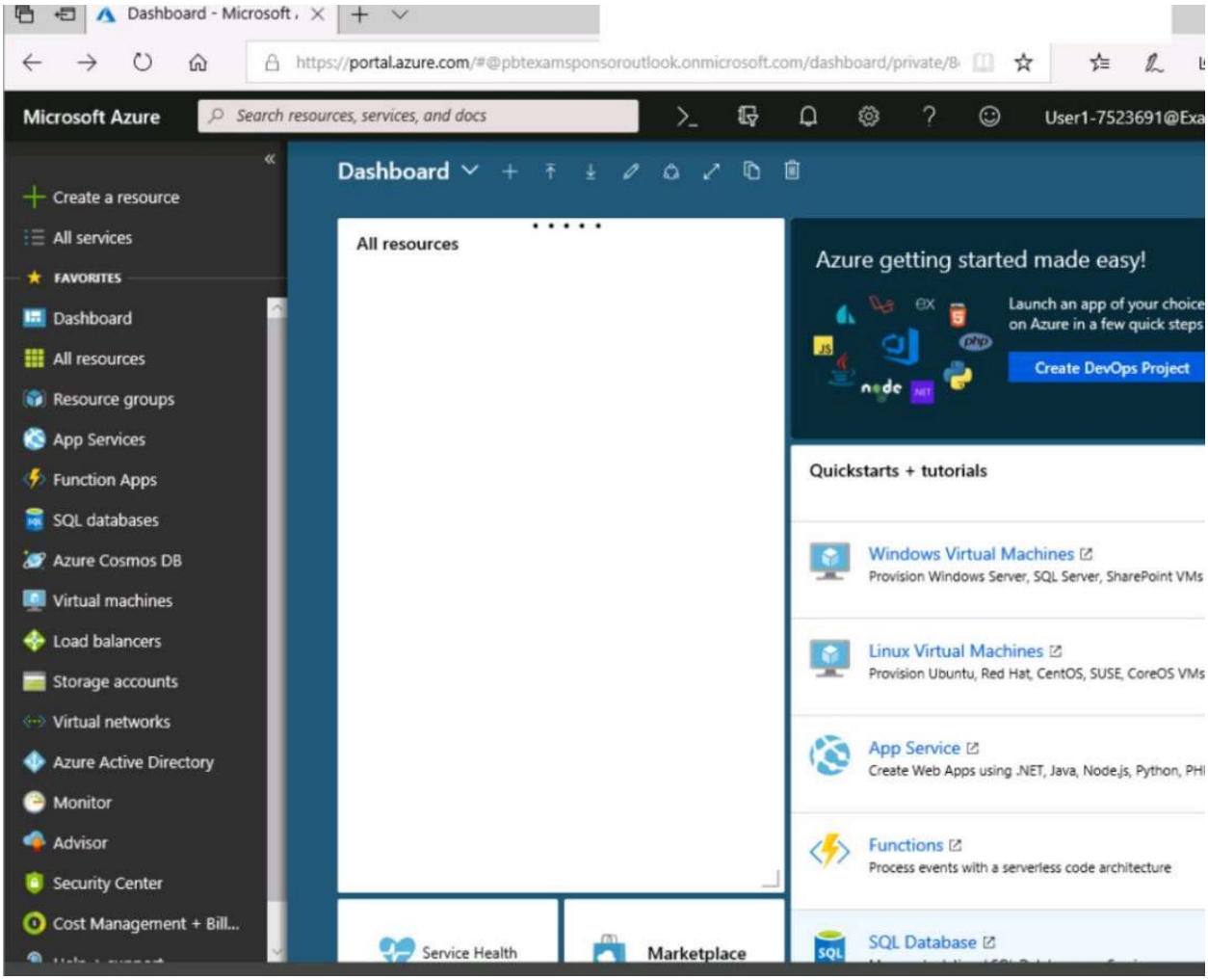


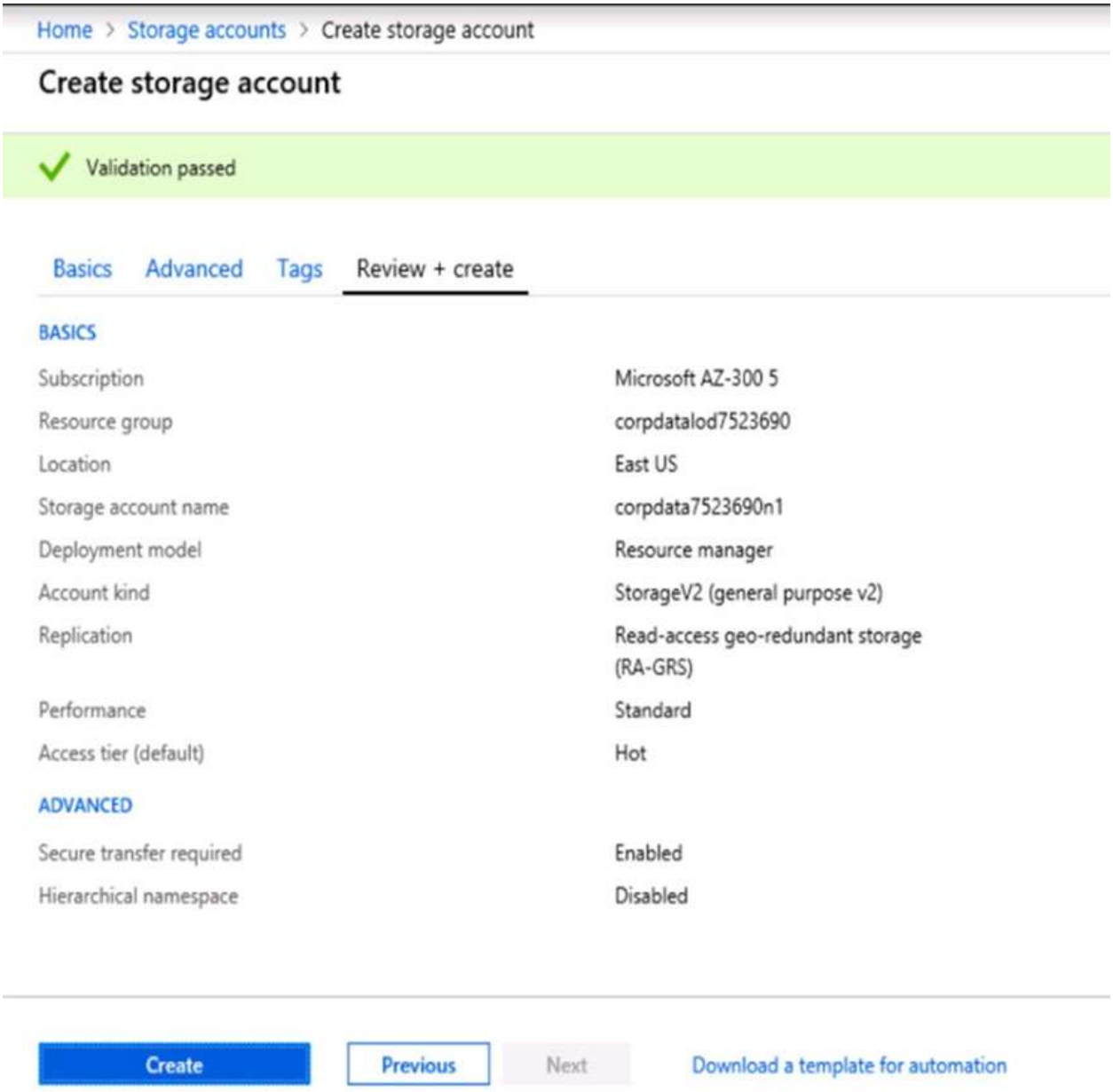
Step 5: Enter a name for your storage account: corpdatalod7523690n2
Step 6: For Account kind select: General-purpose v2 accounts (recommended for most scenarios)
General-purpose v2 accounts is recommended for most scenarios. General-purpose v2 accounts deliver the lowest per-gigabyte capacity prices for Azure
Storage, as well as industry-competitive transaction prices.
Step 7: For replication select: Read-access geo-redundant storage (RA-GRS)
Read-access geo-redundant storage (RA-GRS) maximizes availability for your storage account. RA-GRS provides read-only access to the data in the secondary location, in addition to geo-replication across two regions.
References:

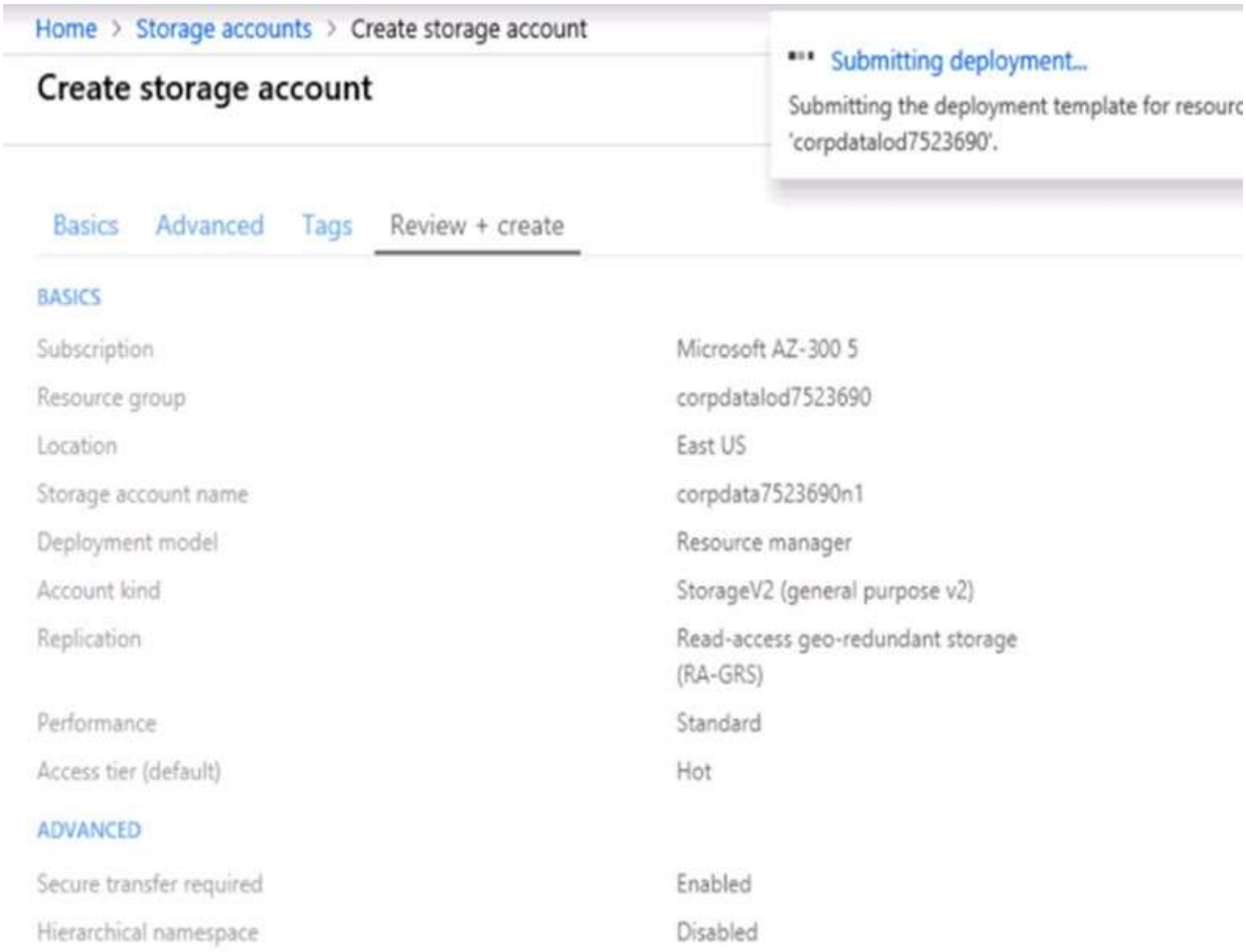
https://docs.microsoft.com/en-us/azure/storage/common/storage-quickstart-create-account
https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview

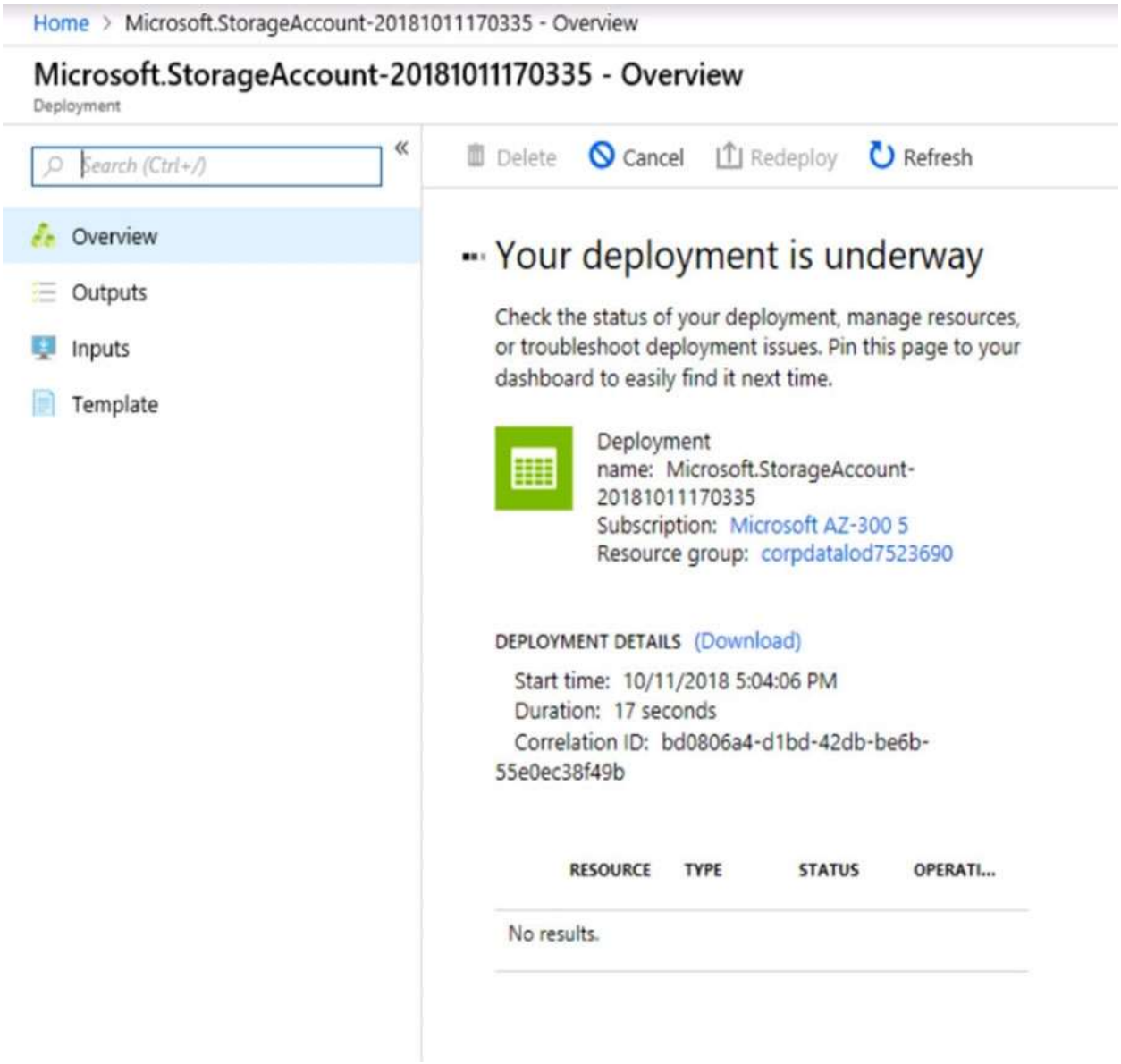
Question #57*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

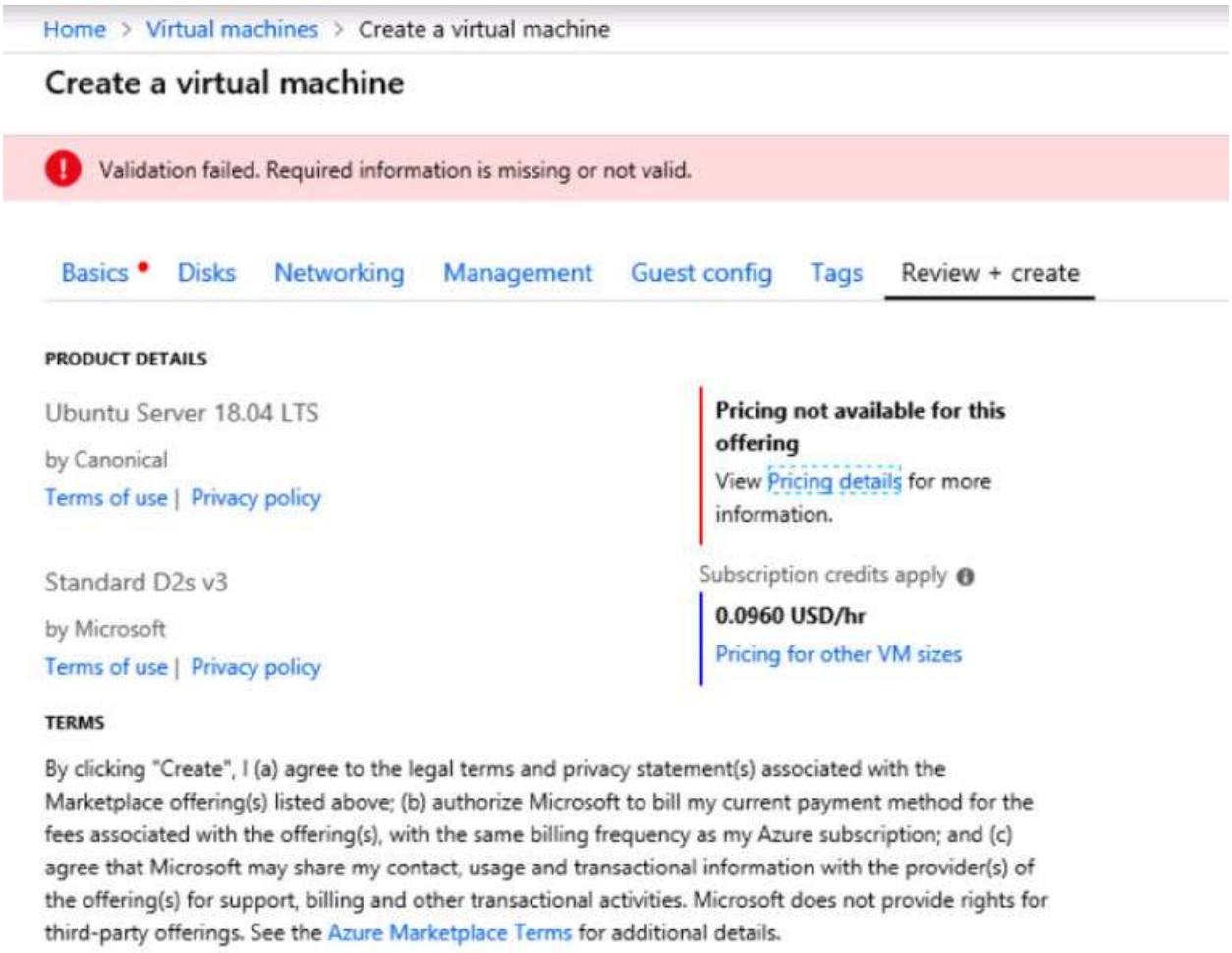












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
Note that you cannot return to the lab once you click the ›€˜Next›€™ button. Scoring occur in the background while you complete the rest of the exam.

Overview -
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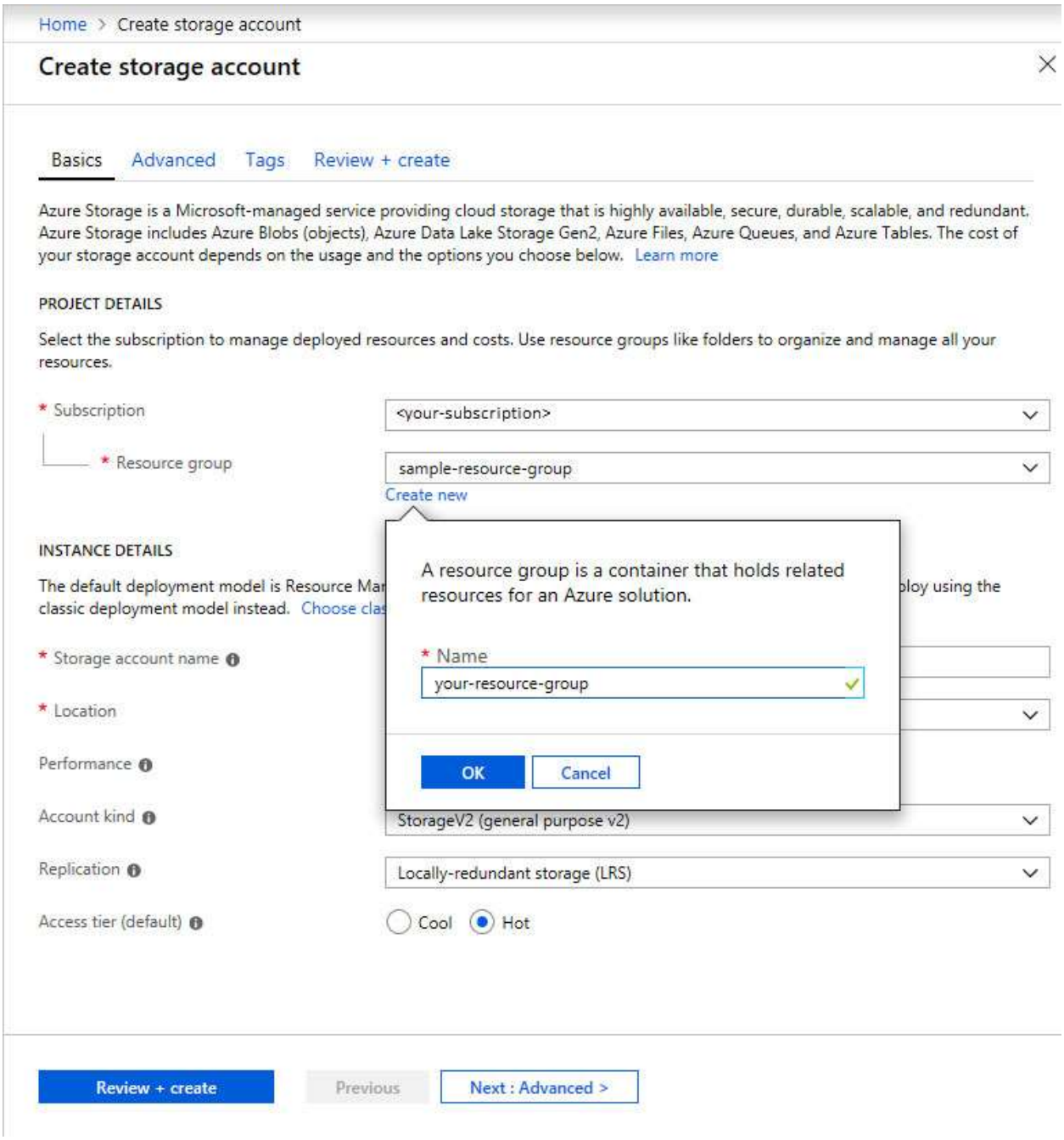
Please note that once you submit your work by clicking the Next button within a lab, you will NOT be able to return to the lab.

To start the lab -
You may start the lab by clicking the Next button.
You plan to move backup files and documents from an on-premises Windows file server to Azure Storage. The backup files will be stored as blobs.
You need to create a storage account named corpdata7523690n2. The solution must meet the following requirements:
Ensure that the documents are accessible via drive mappings from Azure virtual machines that run Windows Server 2016
Provide the highest possible redundancy for the documents

Minimize storage access costs -
What should you do from the Azure portal?

Hide Solution Discussion 23

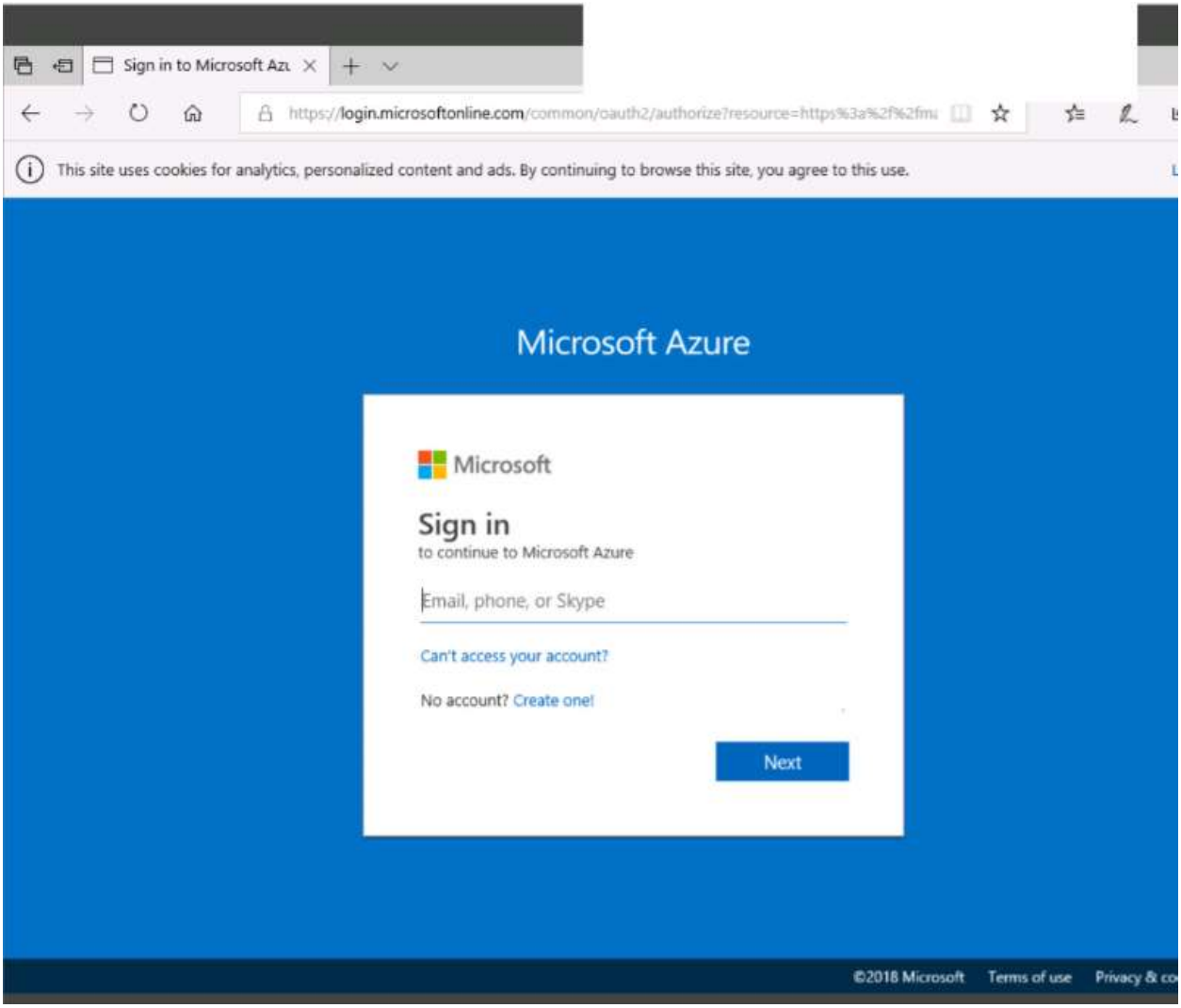
Correct Answer: *See solution below.*
Step 1: In the Azure portal, click All services. In the list of resources, type Storage Accounts. As you begin typing, the list filters based on your input. Select
Storage Accounts.
Step 2: On the Storage Accounts window that appears, choose Add.
Step 3: Select the subscription in which to create the storage account.
Step 4: Under the Resource group field, select Create New. Create a new Resource

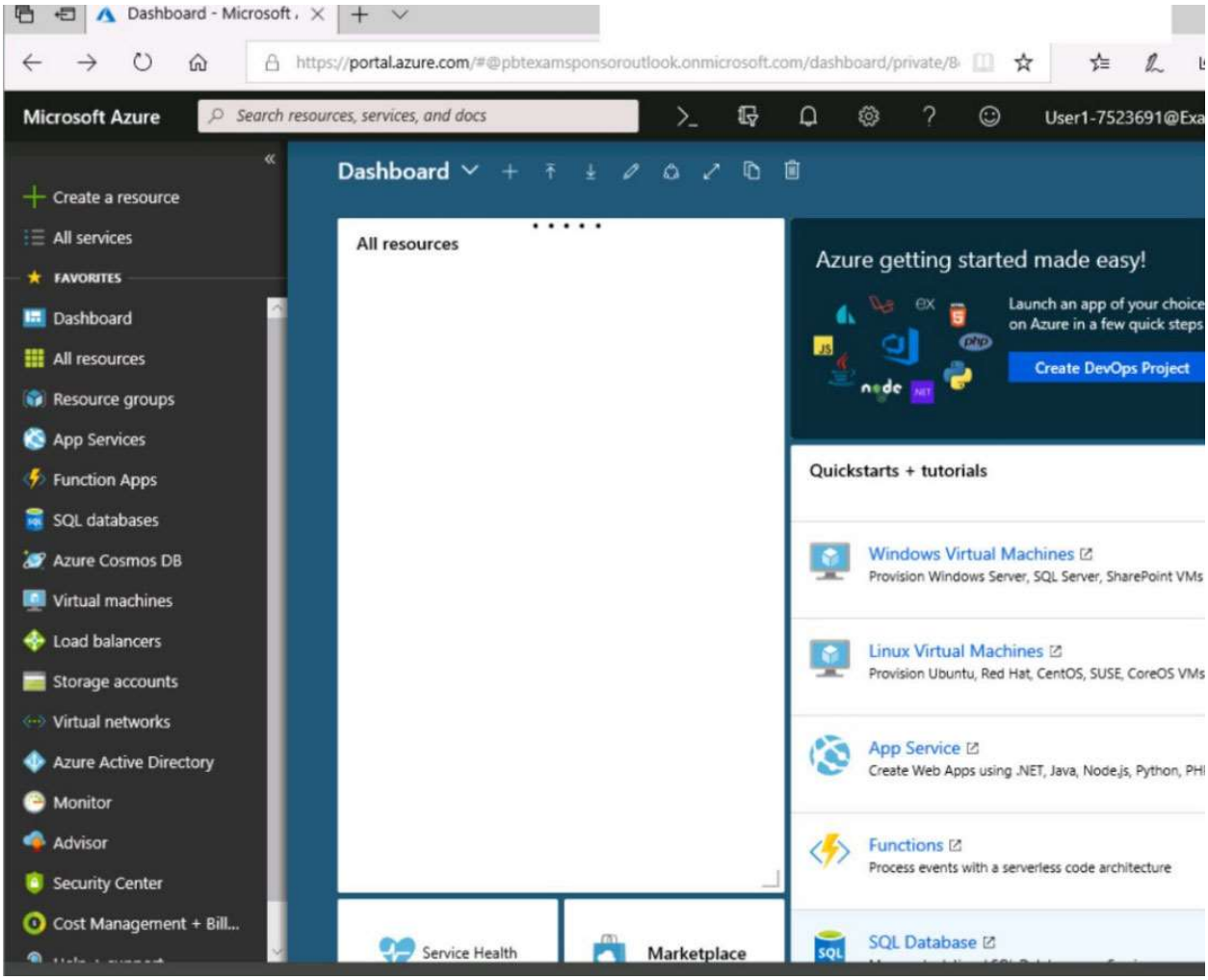


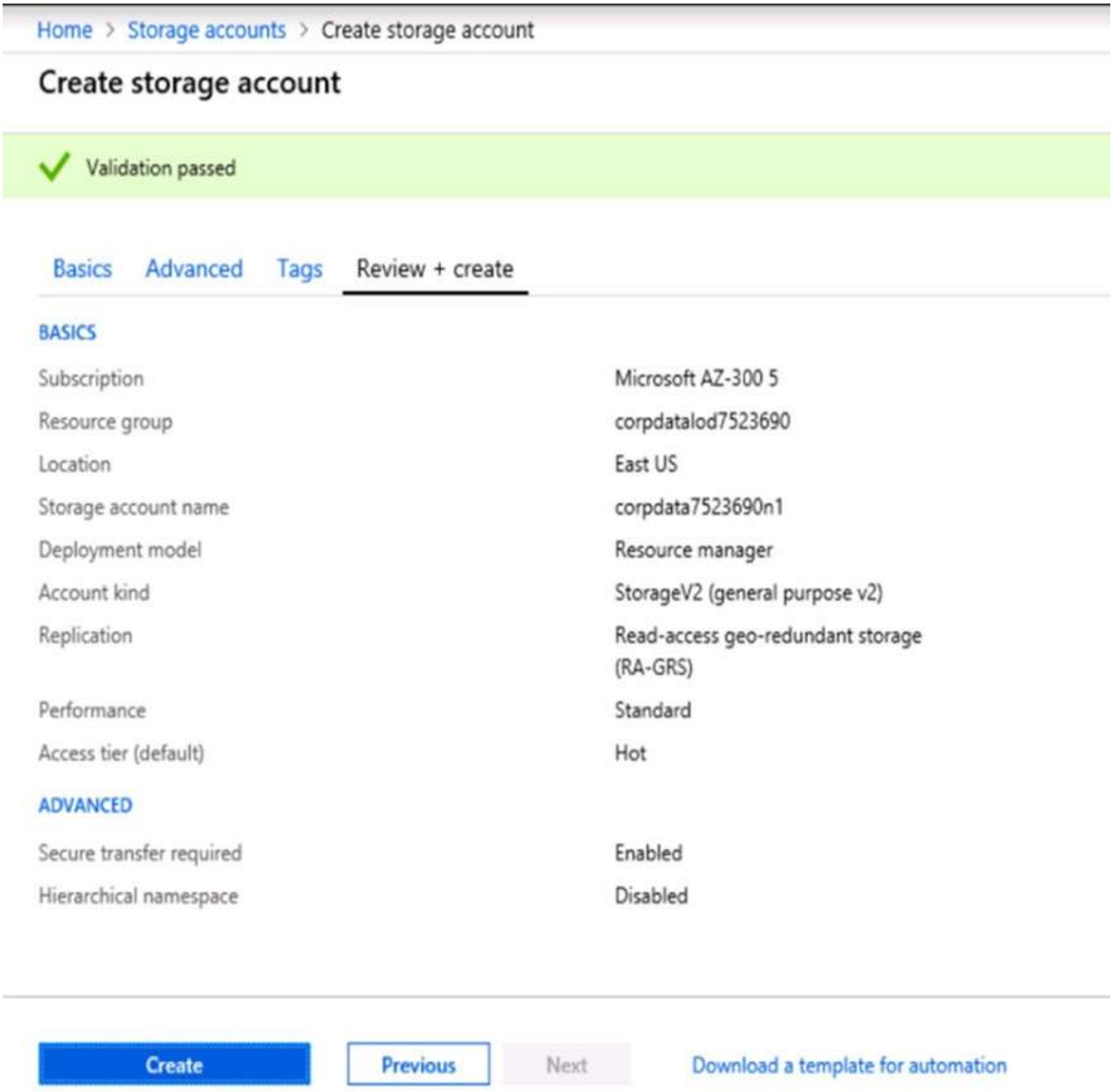
Step 5: Enter a name for your storage account: corpdata7523690n2
Step 6: For Account kind select: General-purpose v2 accounts (recommended for most scenarios)
General-purpose v2 accounts is recommended for most scenarios. General-purpose v2 accounts deliver the lowest per-gigabyte capacity prices for Azure
Storage, as well as industry-competitive transaction prices.
Step 7: For replication select: Read-access geo-redundant storage (RA-GRS)
Read-access geo-redundant storage (RA-GRS) maximizes availability for your storage account. RA-GRS provides read-only access to the data in the secondary location, in addition to geo-replication across two regions.
References:

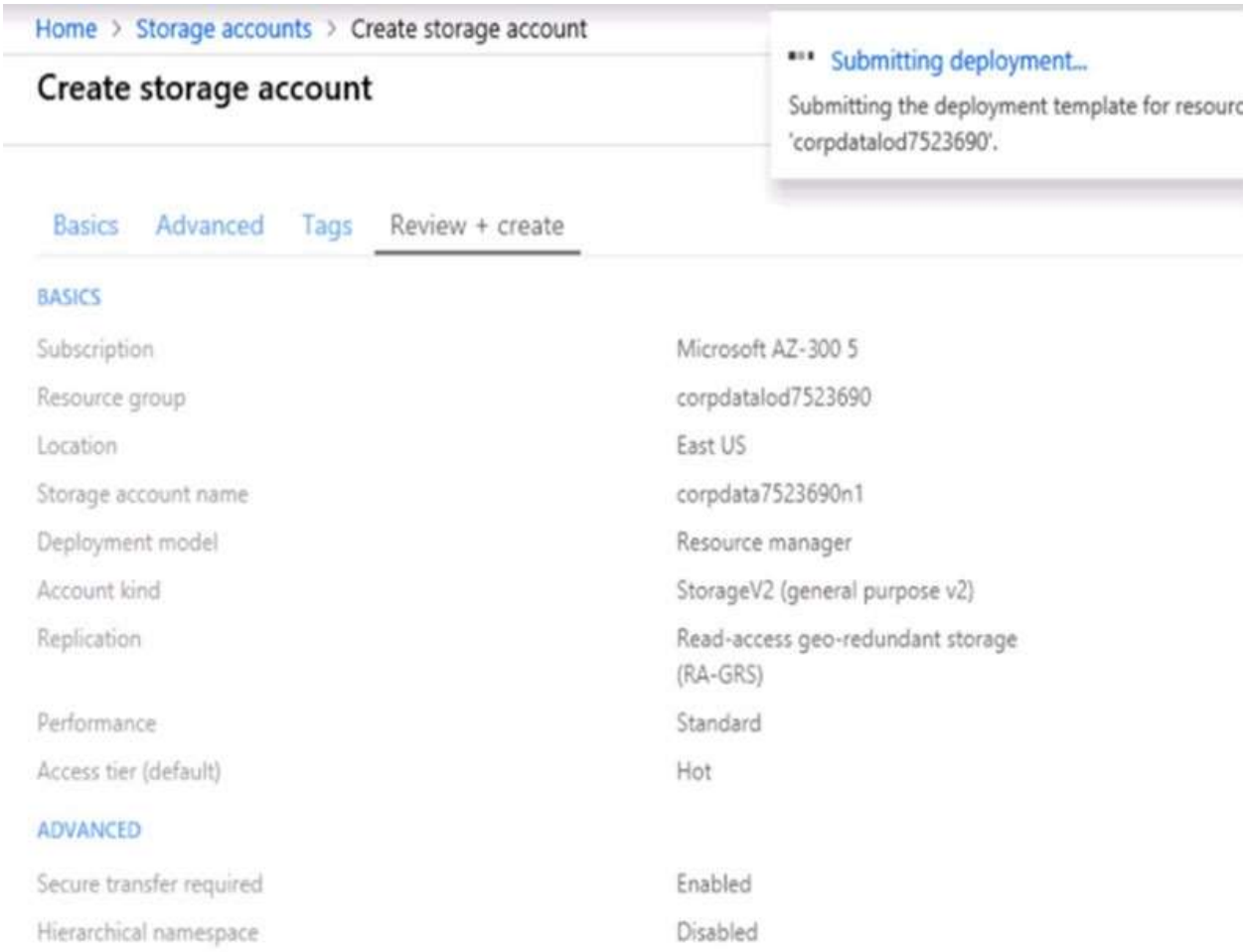
https://docs.microsoft.com/en-us/azure/storage/common/storage-quickstart-create-account
https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview

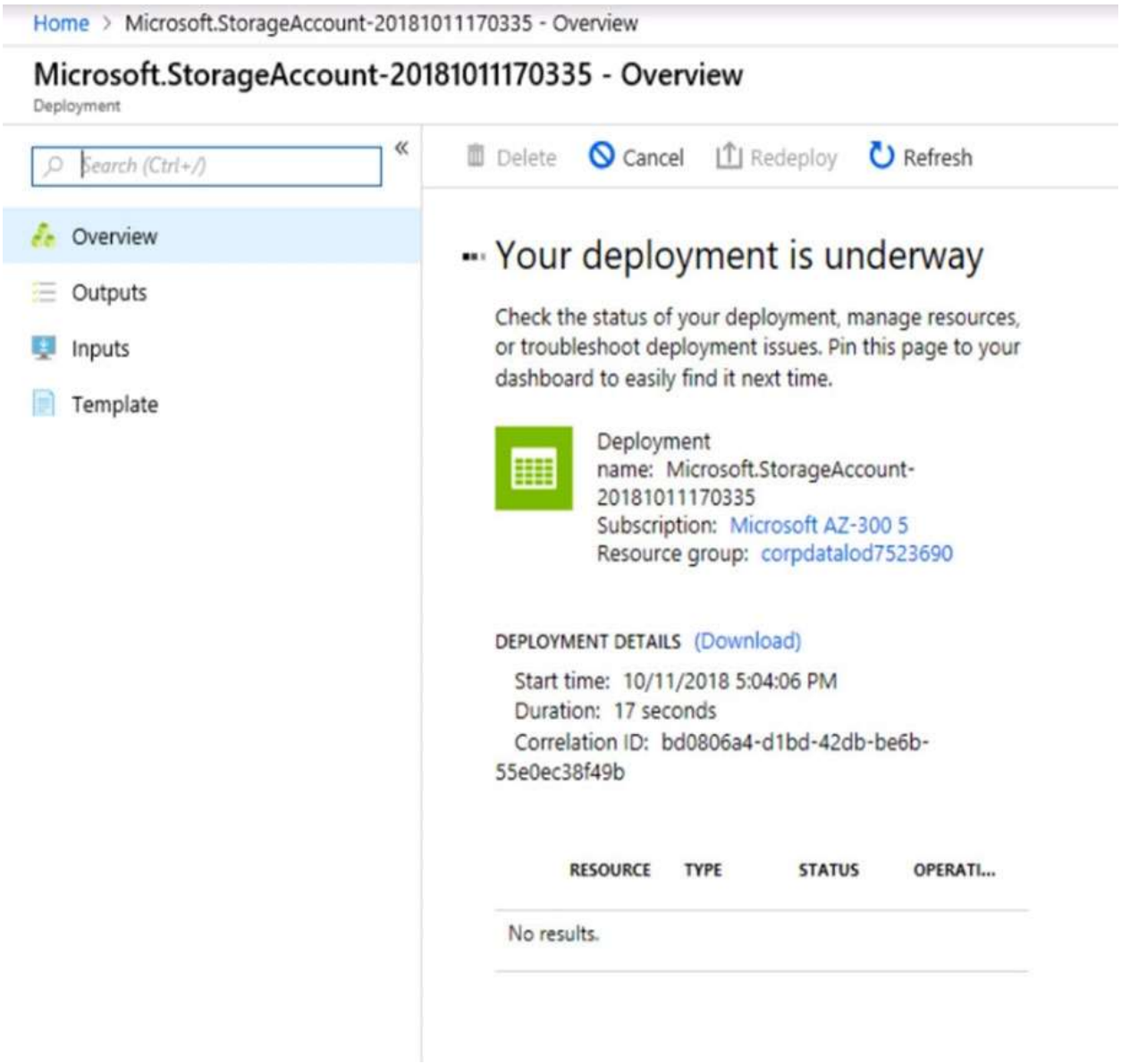
Question #58*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

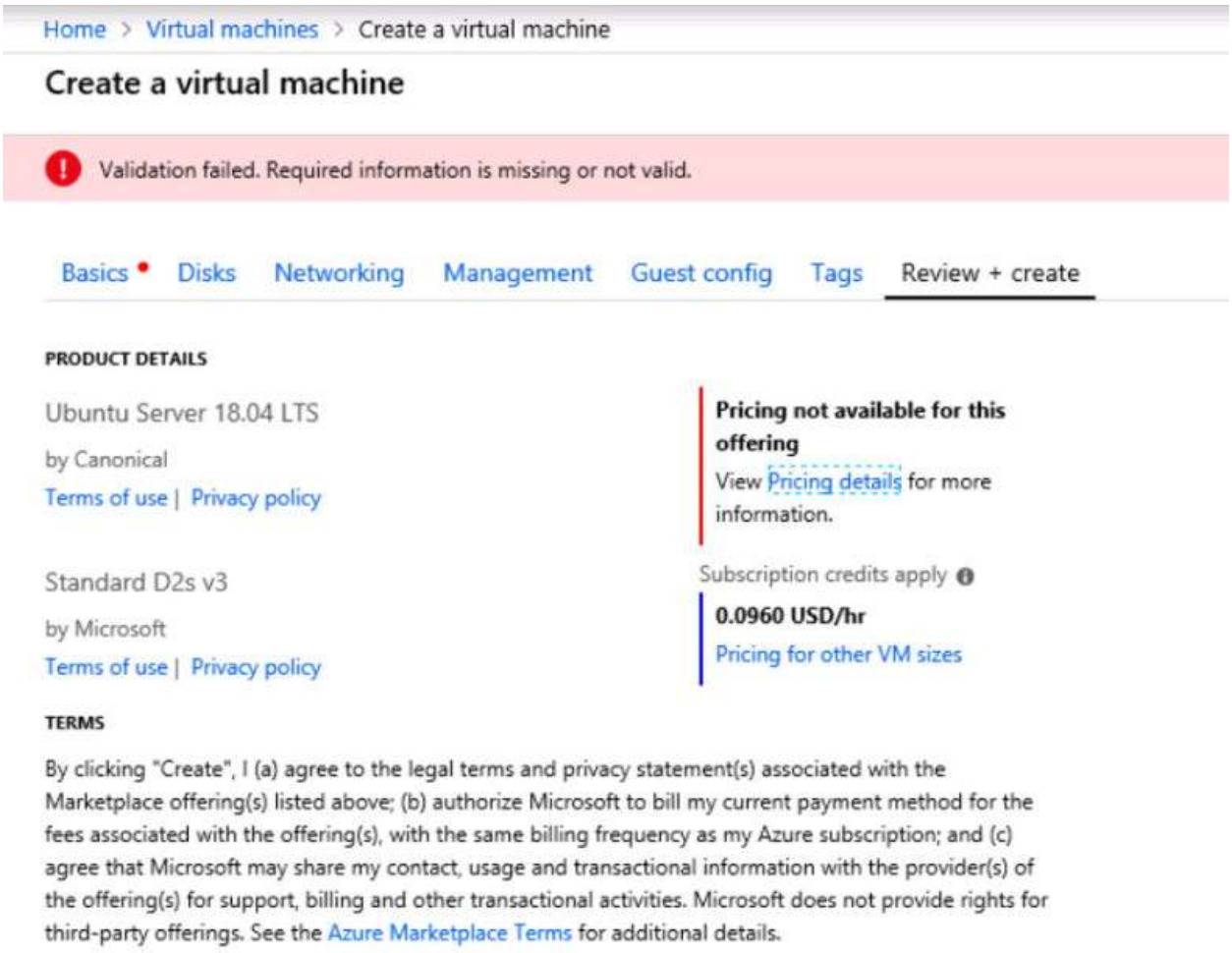












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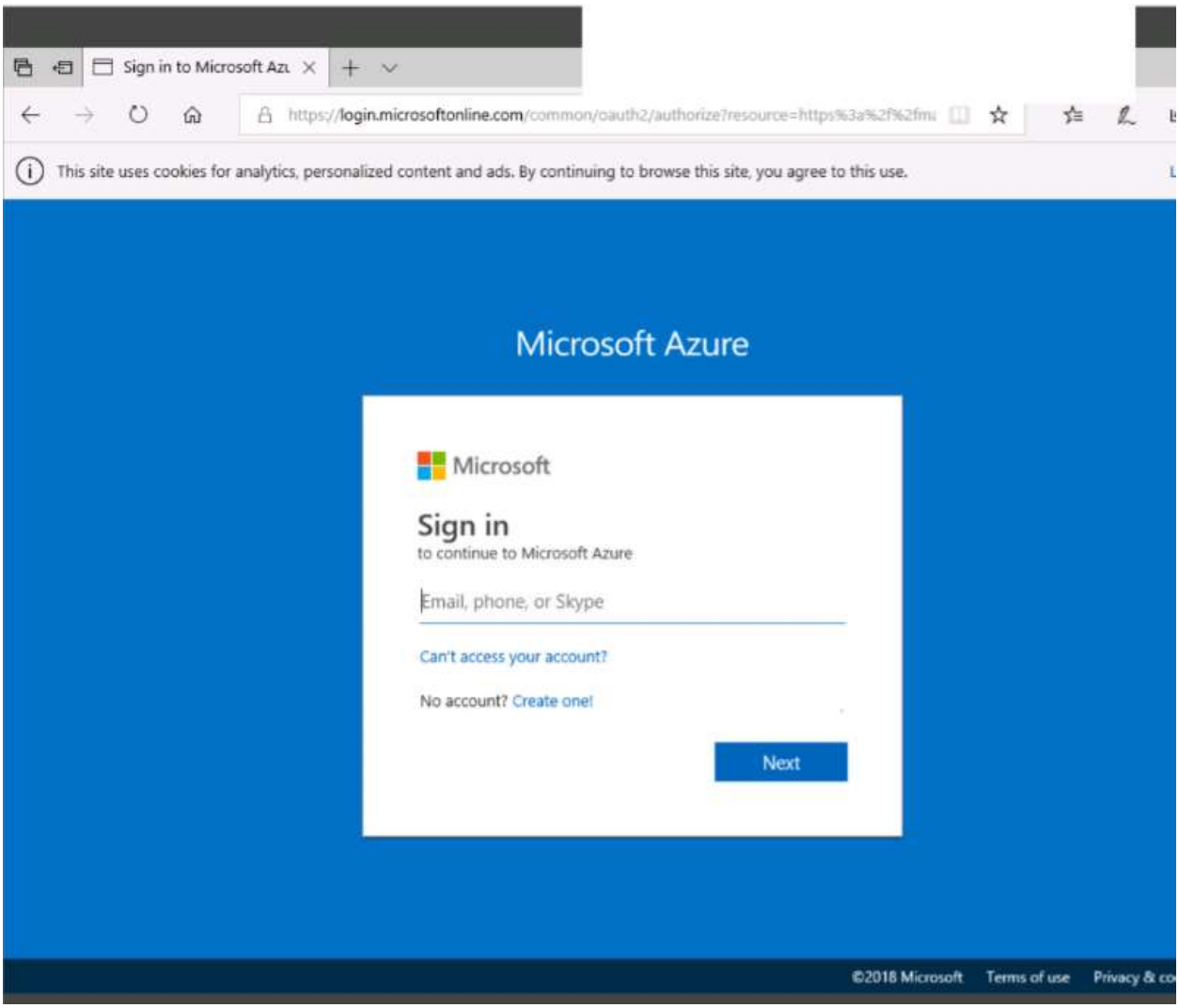
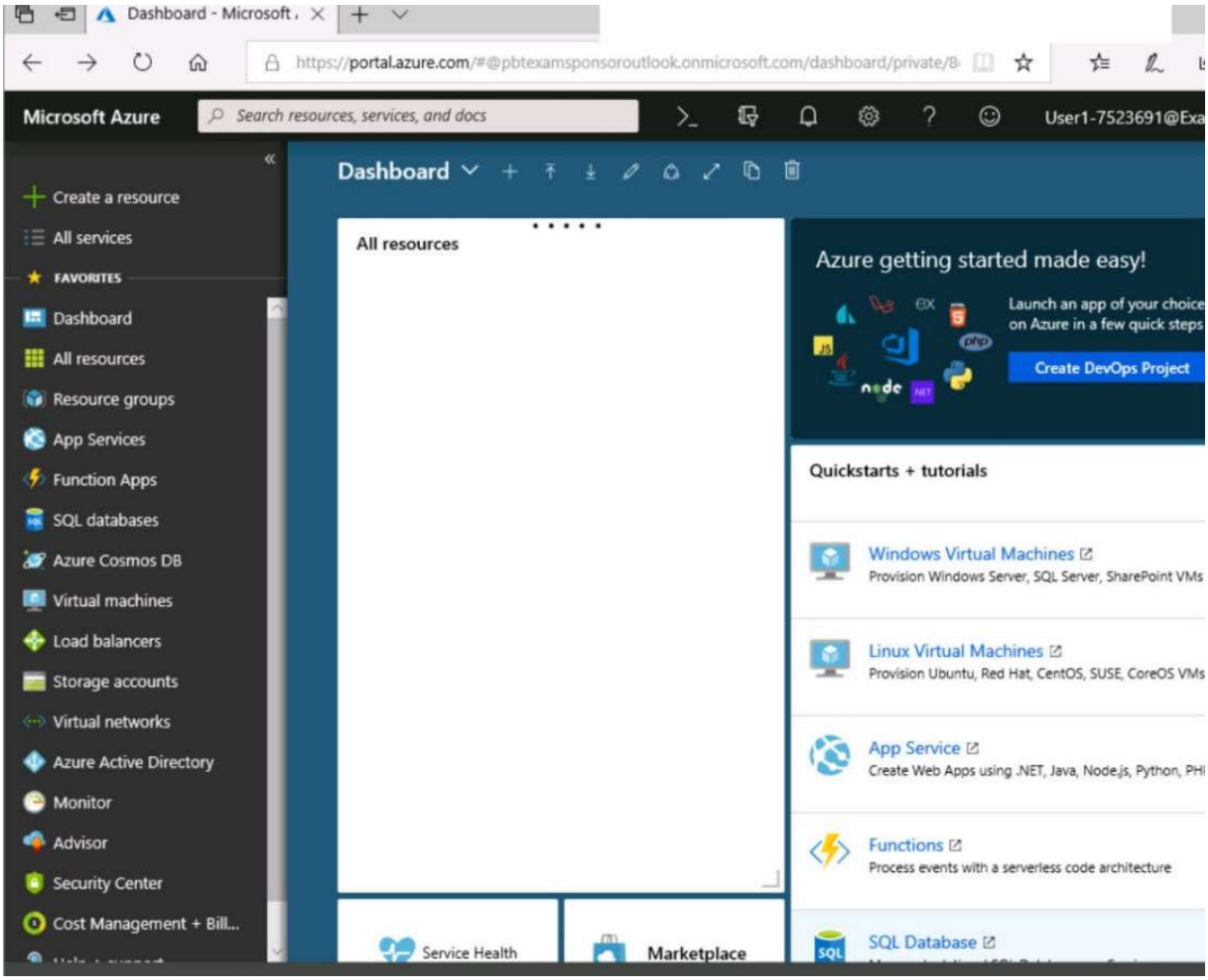
To start the lab -
You may start the lab by clicking the Next button.
You need to deploy two Azure virtual machines named VM1003a and VM1003b based on an Ubuntu Server image. The deployment must meet the following requirements:
- Provide a Service Level Agreement (SLA) of 99.95 percent availability
- Use managed disks
What should you do from the Azure portal?

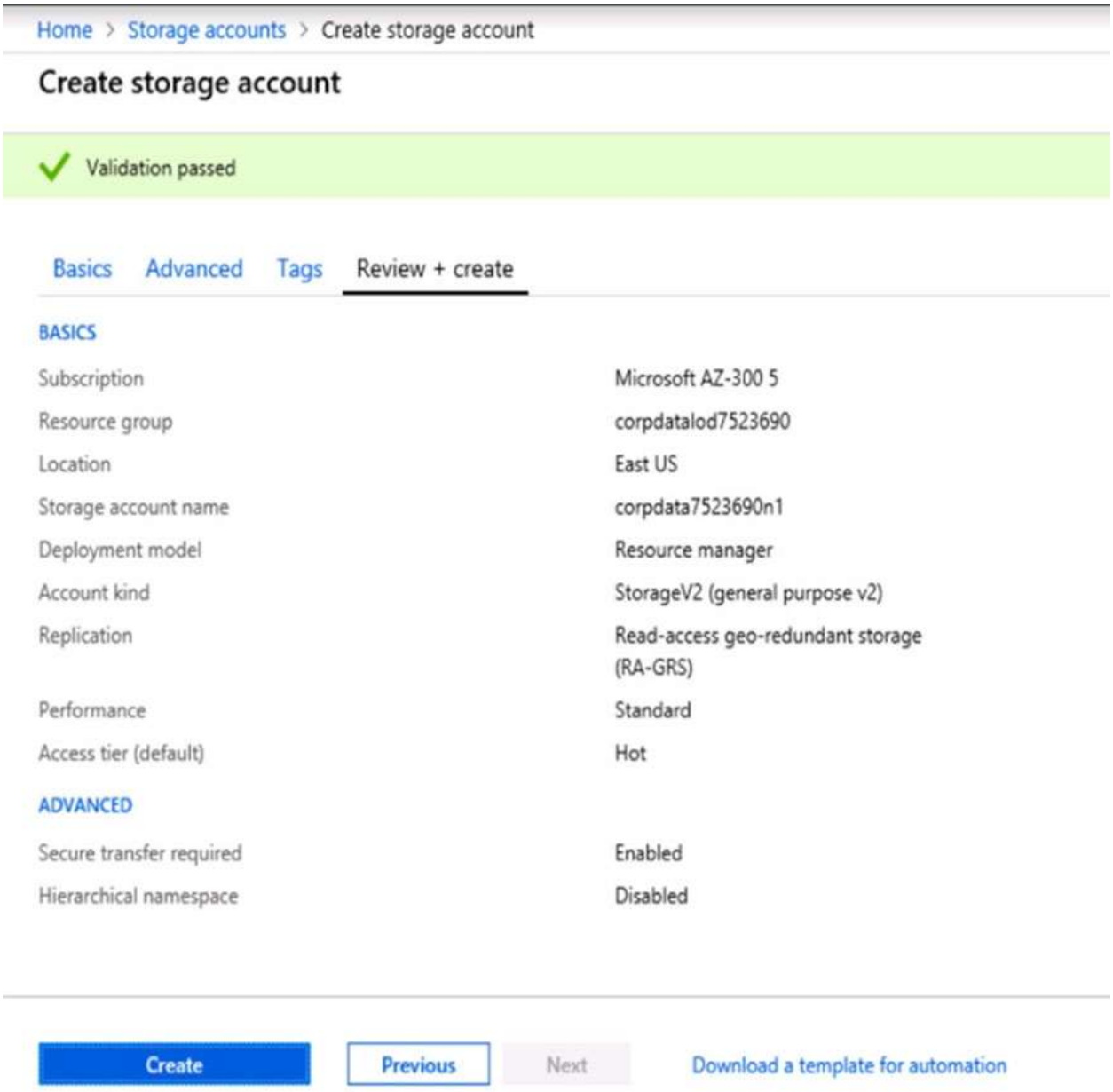
Hide Solution | Discussion 12

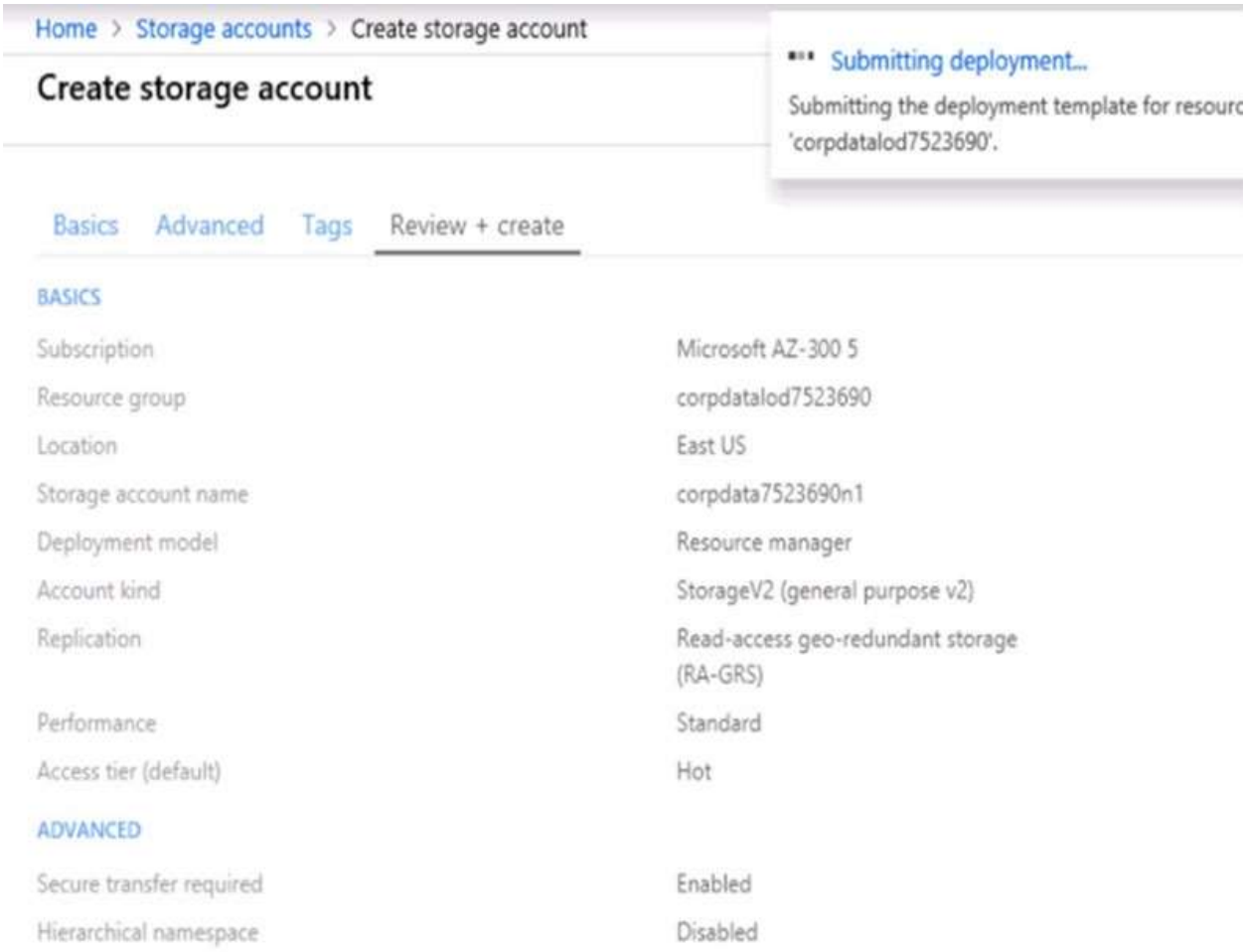
Correct Answer: *See solution below.*
Step 1: Open the Azure portal.
Step 2: On the left menu, select All resources. You can sort the resources by Type to easily find your images.
Step 3: Select the image you want to use from the list. The image Overview page opens.
Step 4: Select Create VM from the menu.
Step 5: Enter the virtual machine information. Select VM1003a as the name for the first Virtual machine.The user name and password entered here will be used to log in to the virtual machine. When complete, select OK. You can create the new VM in an existing resource group, or choose Create new to create a new resource group to store the VM.
Step 6: Select a size for the VM. To see more sizes, select View all or change the Supported disk type filter.
Step 7: Under Settings, make changes as necessary and select OK.
Step 8: On the summary page, you should see your image name listed as a Private image. Select Ok to start the virtual machine deployment.
Repeat the procedure for the second VM and name it VM1003b.
References:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/create-vm-generalized-managed

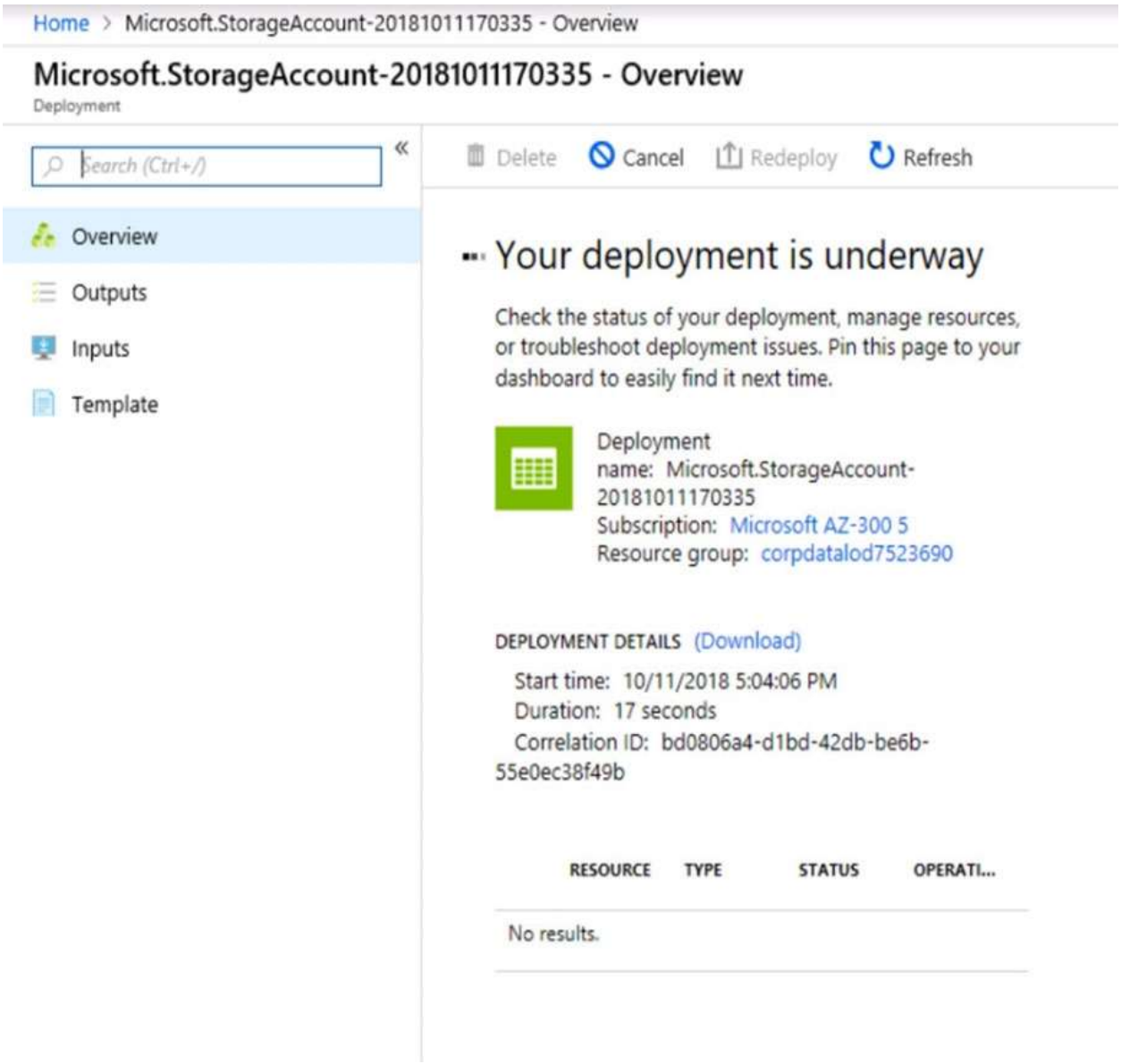
Question #59*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

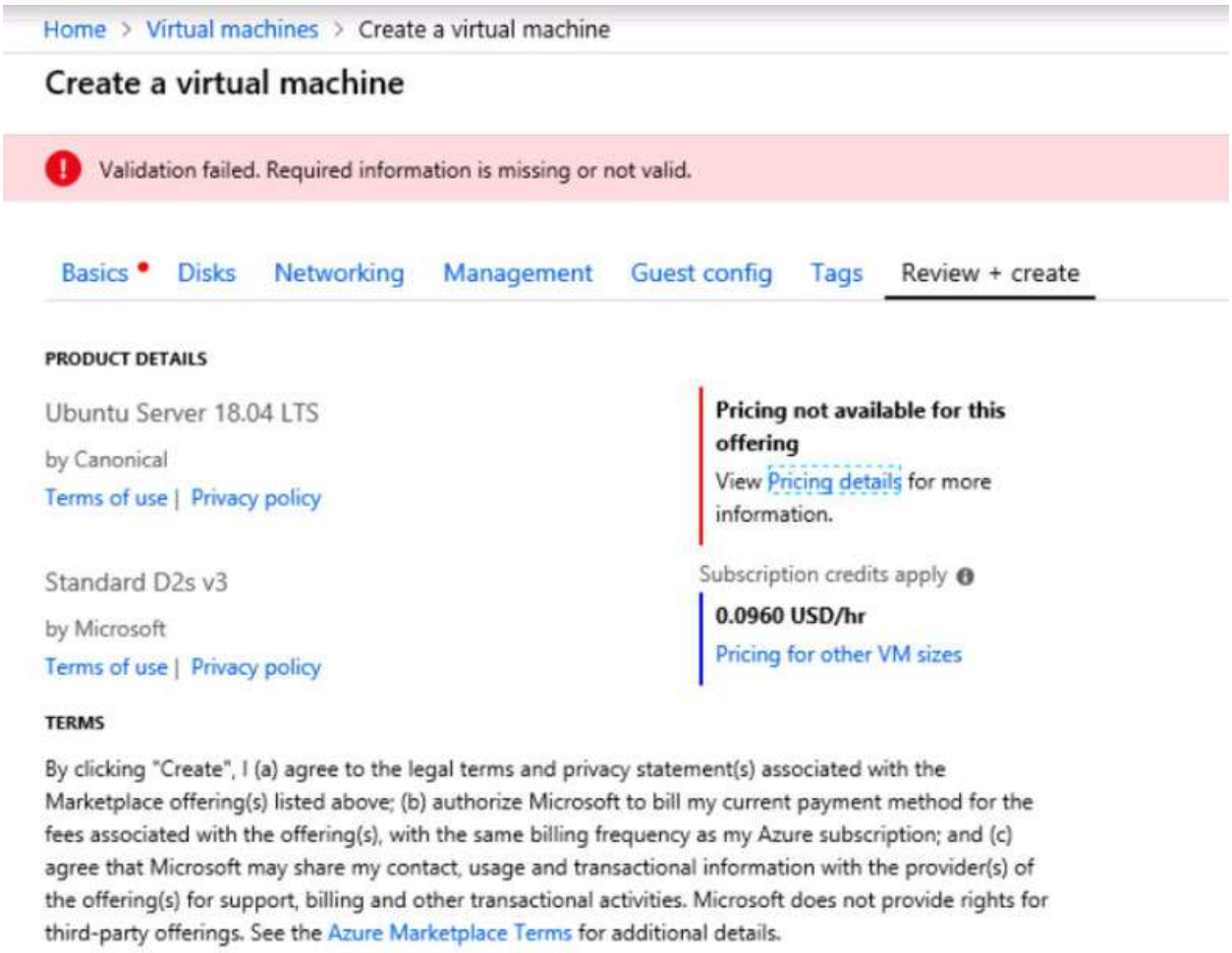












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
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Overview -
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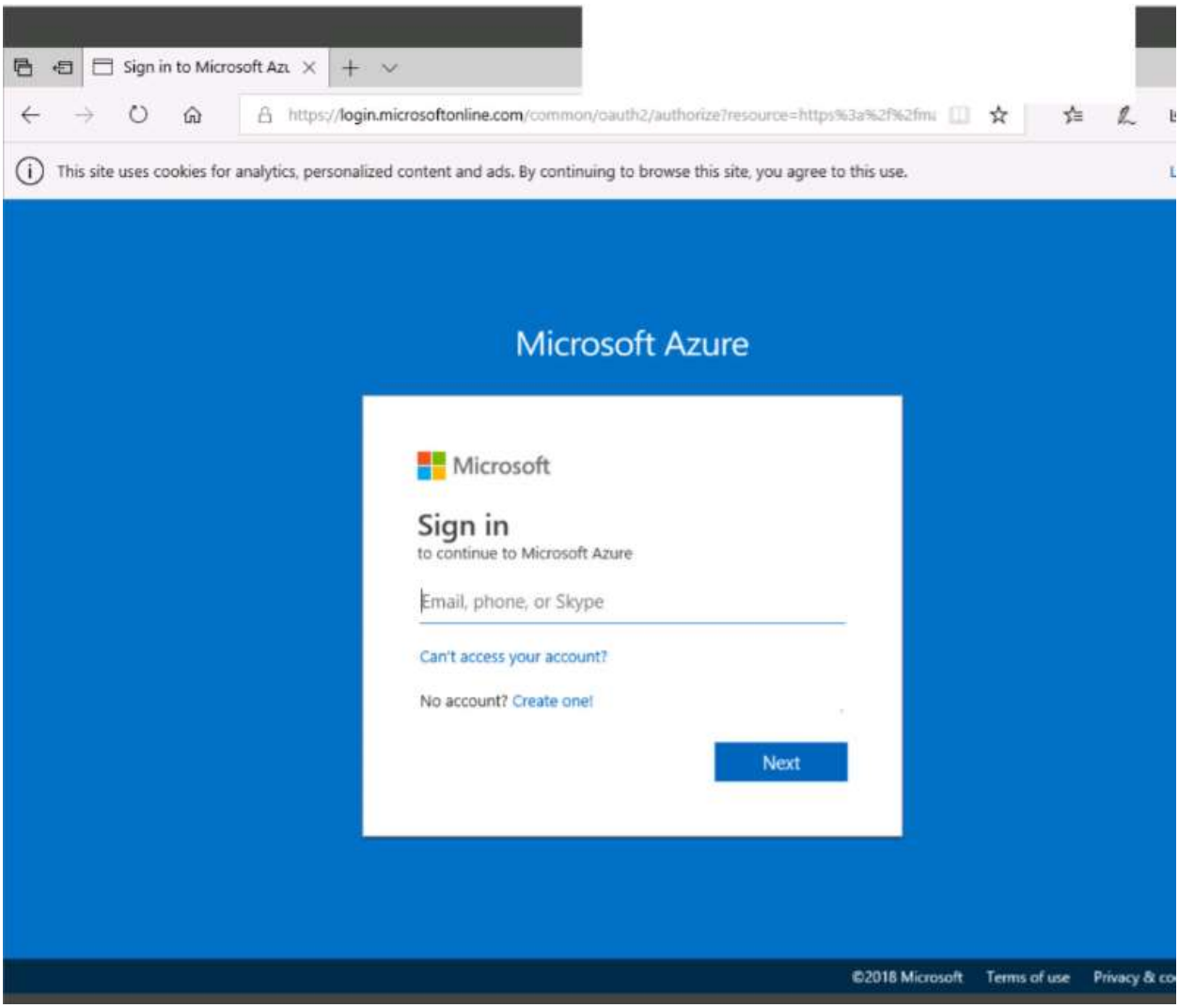
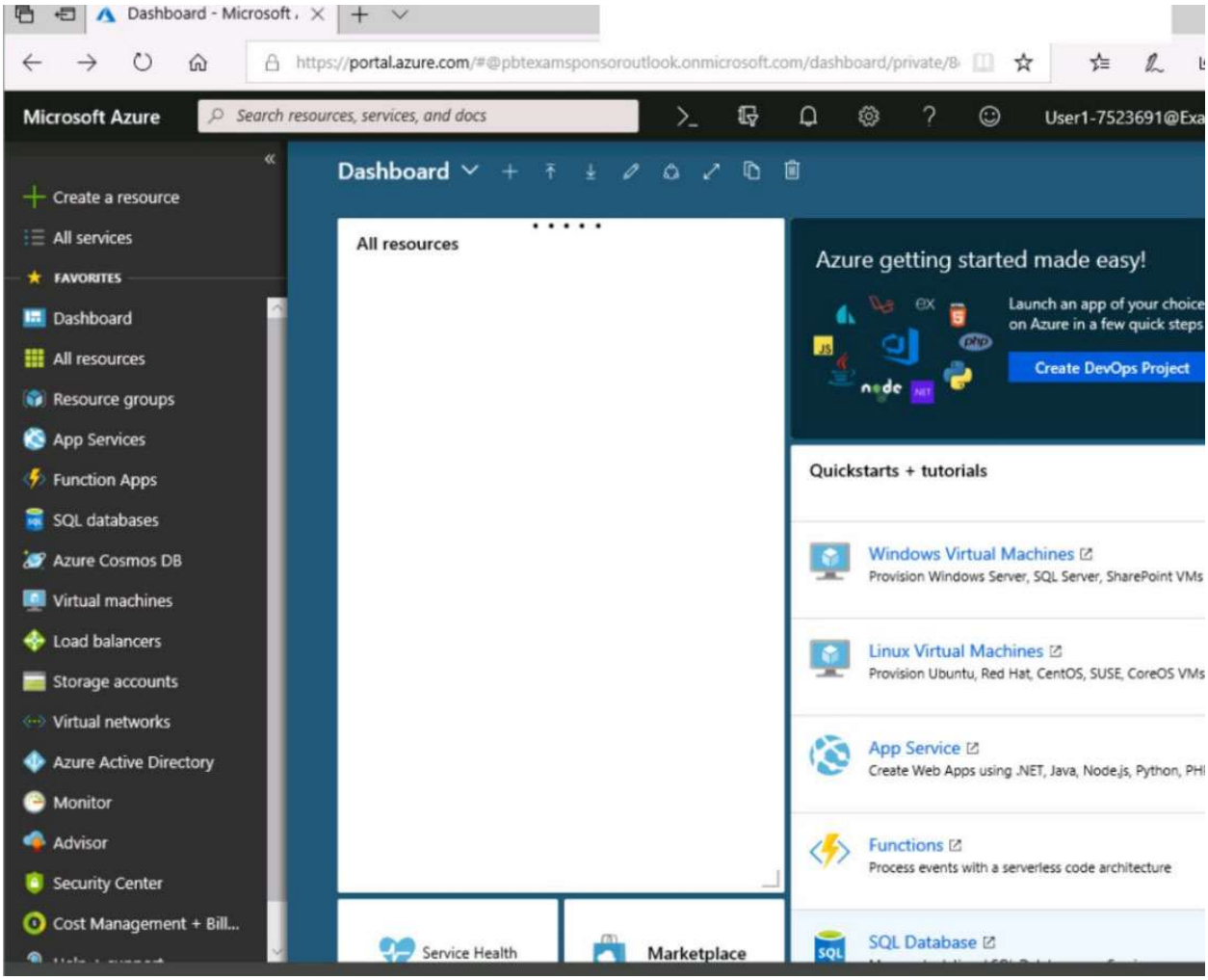
To start the lab -
You may start the lab by clicking the Next button.
You need to deploy an Azure virtual machine named VM1004a based on an Ubuntu Server image, and then to configure VM1004a to meet the following requirements:
- The virtual machines must contain data disks that can store at least 15 TB of data
- The data disk must be able to provide at least 2,000 IOPS
- Storage costs must be minimized
What should you do from the Azure portal?

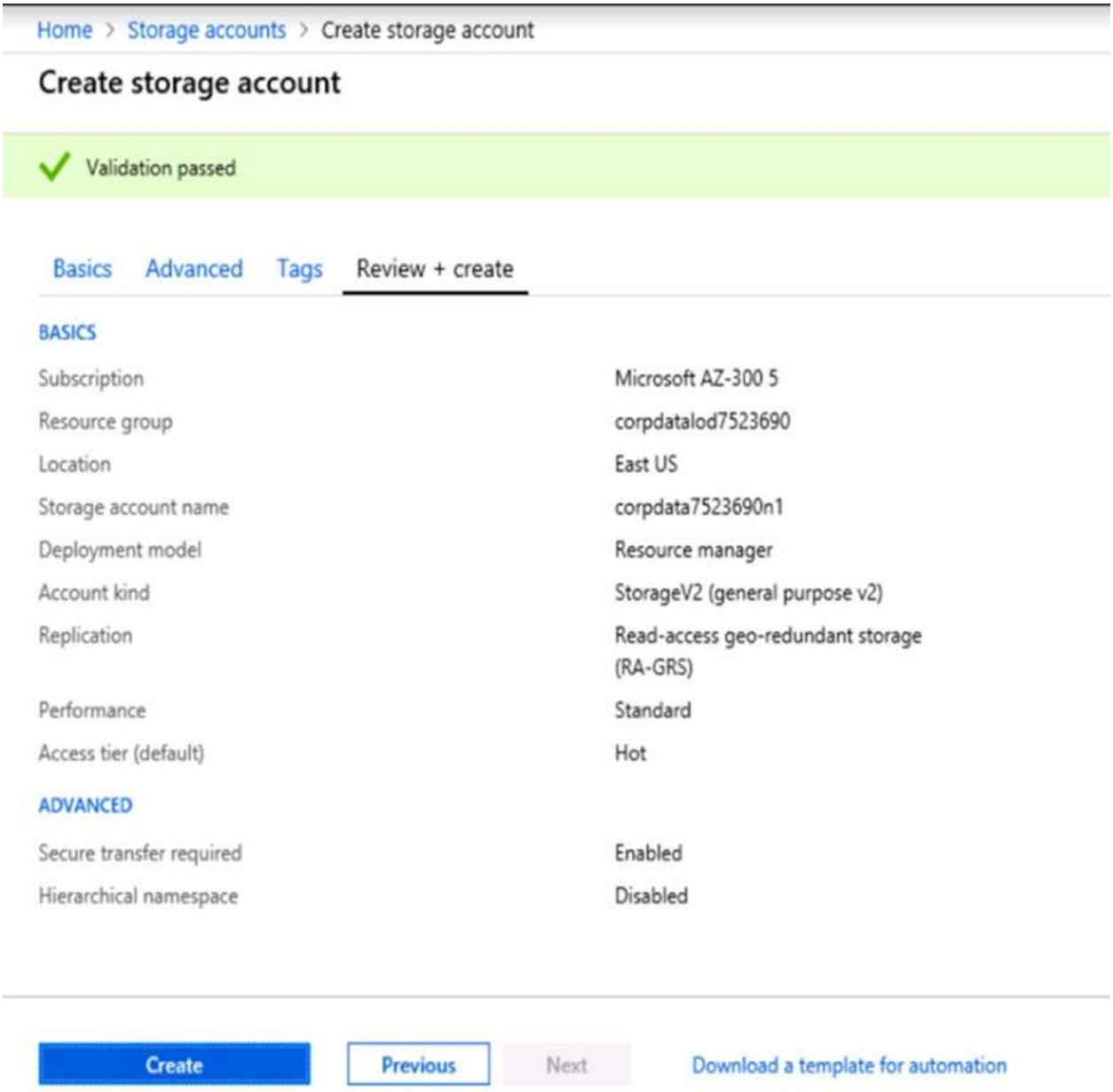
Hide Solution | Discussion 14

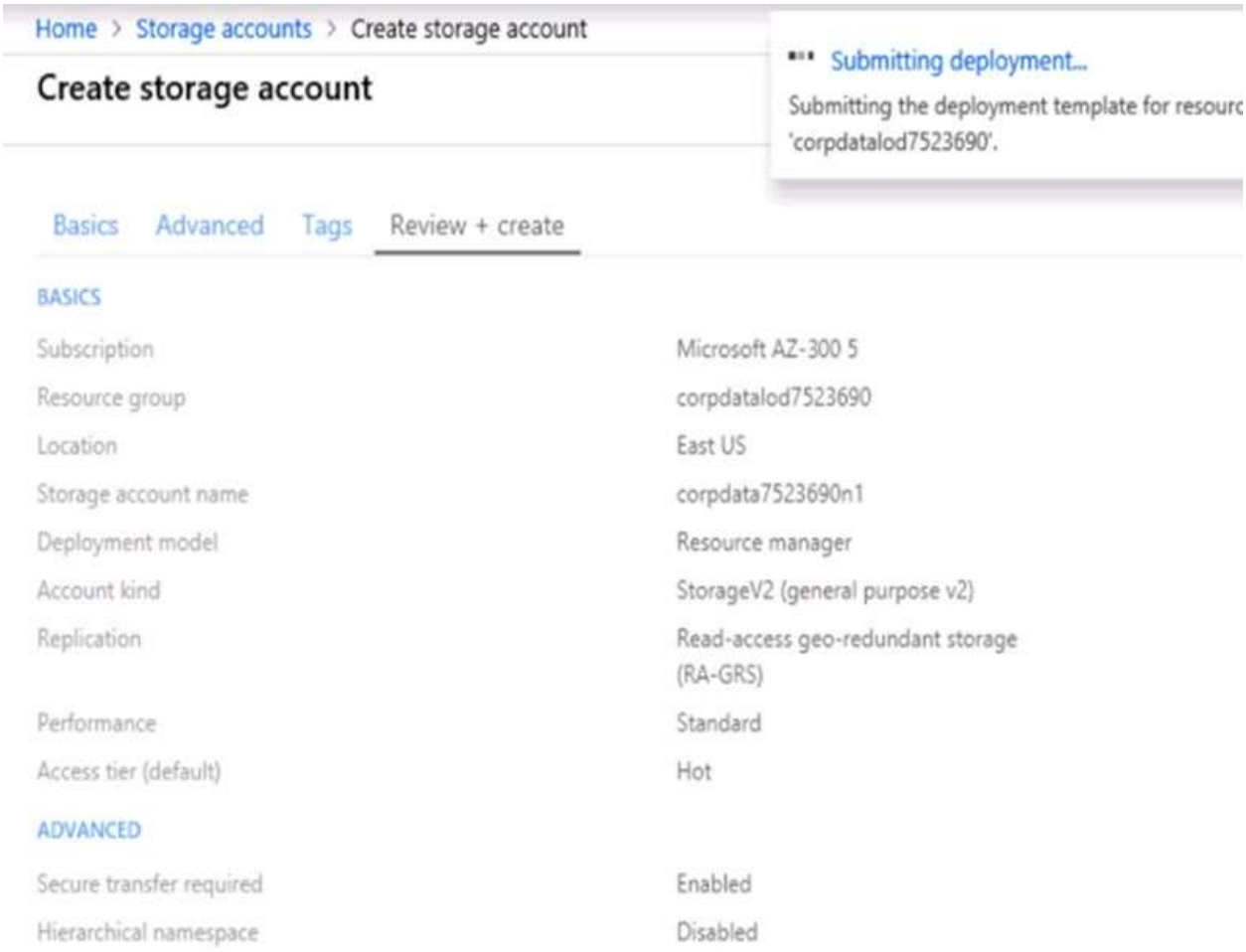
Correct Answer: *See solution below.*
Step 1: Open the Azure portal.
Step 2: On the left menu, select All resources. You can sort the resources by Type to easily find your images.
Step 3: Select the image you want to use from the list. The image Overview page opens.
Step 4: Select Create VM from the menu.
Step 5: Enter the virtual machine information. Select VM1004a as the name for the first Virtual machine.The user name and password entered here will be used to log in to the virtual machine. When complete, select OK. You can create the new VM in an existing resource group, or choose Create new to create a new resource group to store the VM.
Step 6: Select a size for the VM. To see more sizes, select View all or change the Supported disk type filter.To support 15 TB of data you would need a Premium disk.
Step 7: Under Settings, make changes as necessary and select OK.
Step 8: On the summary page, you should see your image name listed as a Private image. Select Ok to start the virtual machine deployment.
References:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/create-vm-generalized-managed

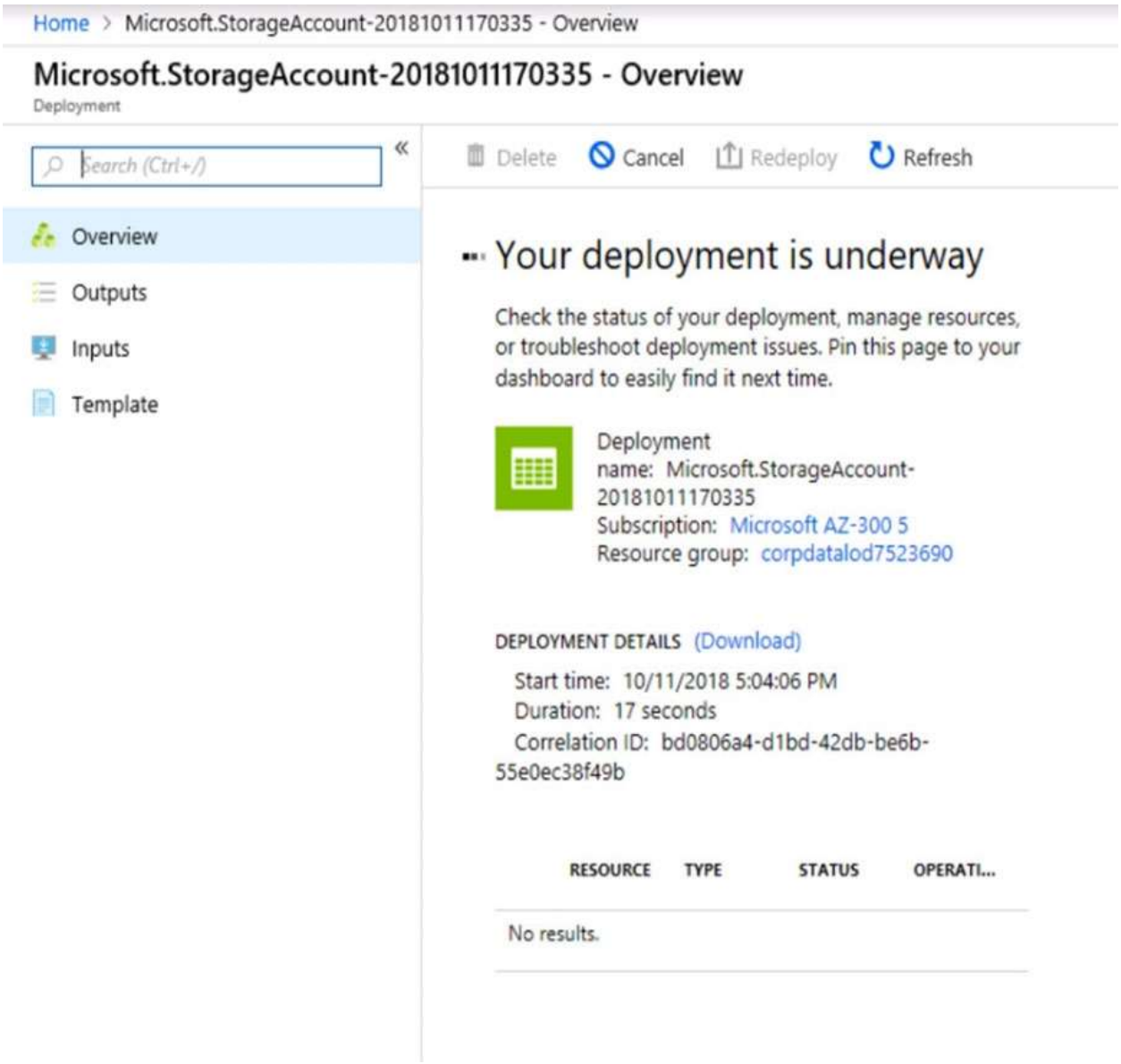
Question #60*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

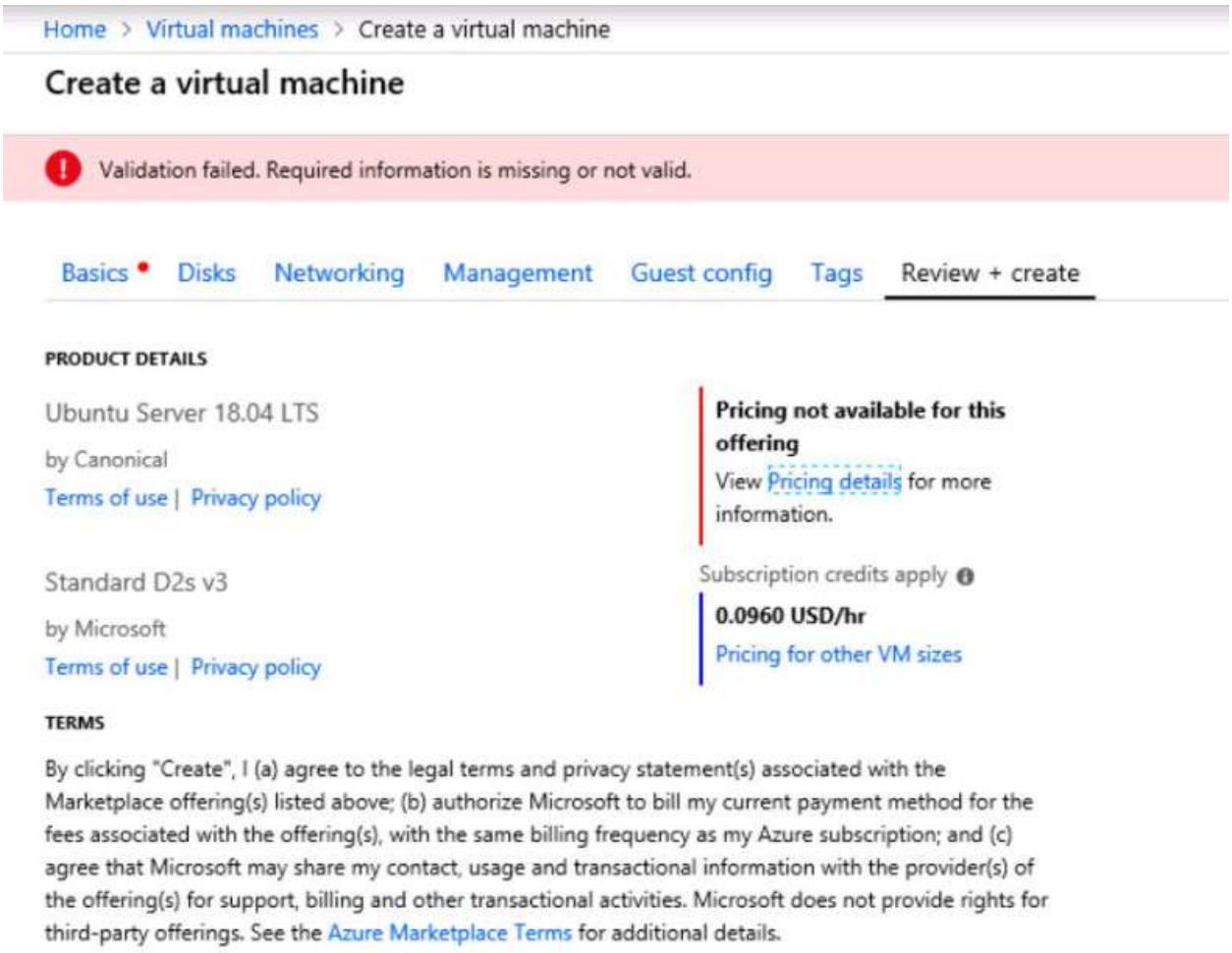












When you are finished performing all the tasks, click the ›€˜Next›€™ button.
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Overview -
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To start the lab -
You may start the lab by clicking the Next button.
You plan to create 100 Azure virtual machines on each of the following three virtual networks:
- VNET1005a
- VNET1005b
- VNET1005c
All the network traffic between the three virtual networks will be routed through VNET1005a.
You need to create the virtual networks, and then to ensure that all the Azure virtual machines can connect to other virtual machines by using their private IP address. The solutions must NOT require any virtual gateways and must minimize the number of peerings.
What should you do from the Azure portal before you configure IP routing?

Hide Solution Discussion 9

Correct Answer: *See solution below.*
Step 1: Click Create a resource in the portal.
Step 2: Enter Virtual network in the Search the Marketplace box at the top of the New pane that appears. Click Virtual network when it appears in the search results.
Step 3: Select Classic in the Select a deployment model box in the Virtual Network pane that appears, then click Create.
Step 4: Enter the following values on the Create virtual network (classic) pane and then click Create:

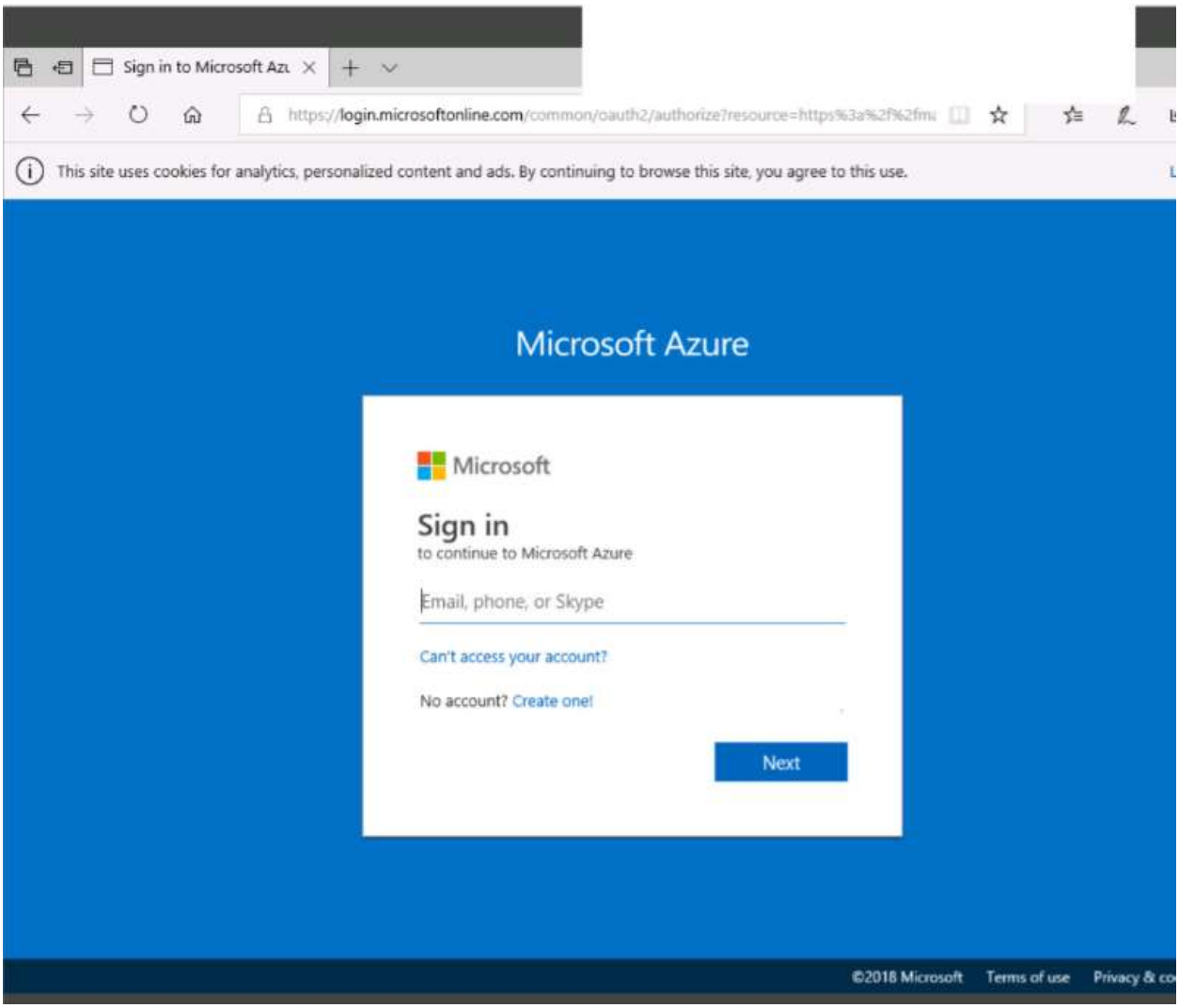
Name: VNET1005a -

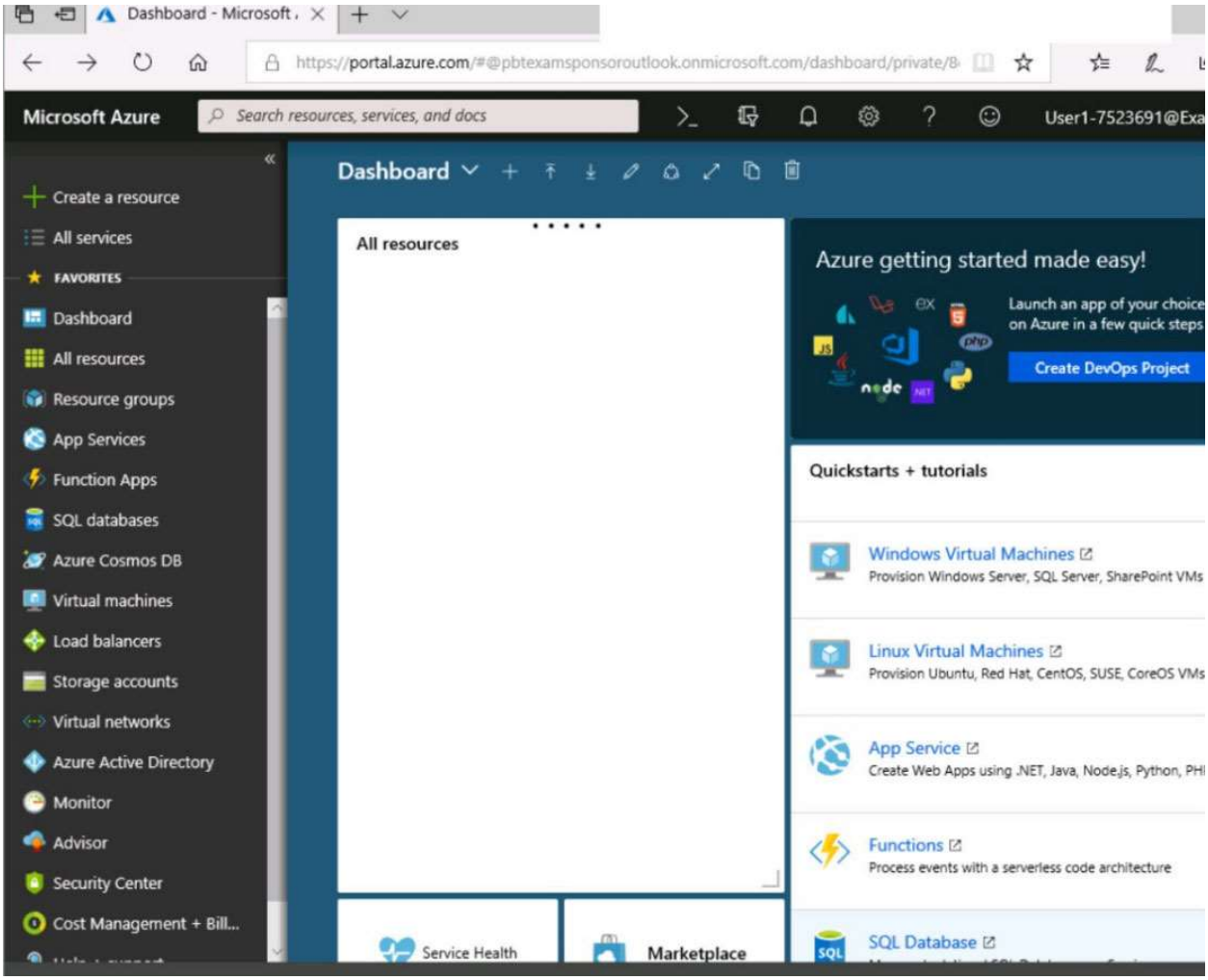
Address space: 10.0.0.0/16 -

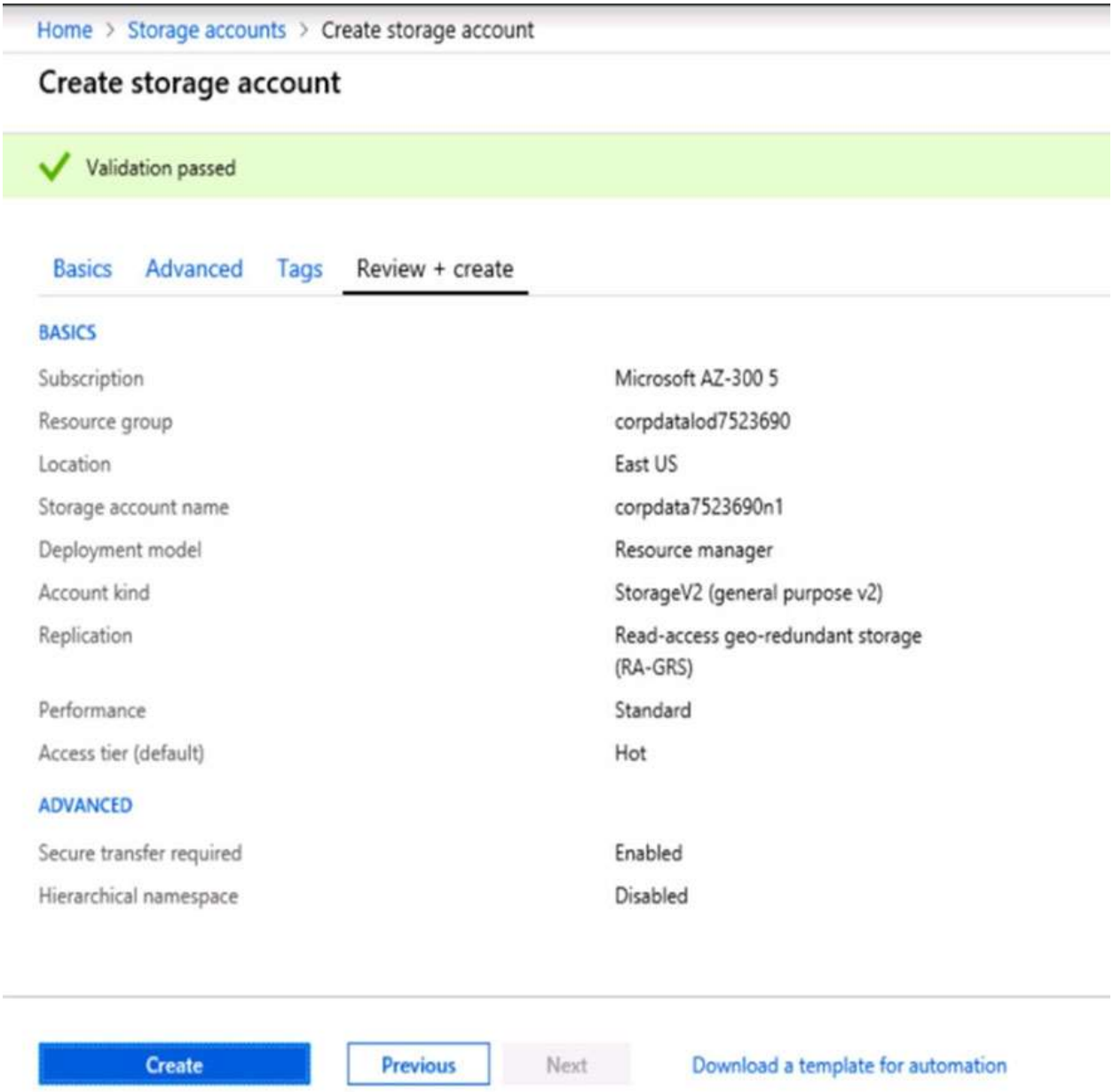
Subnet name: subnet0 -

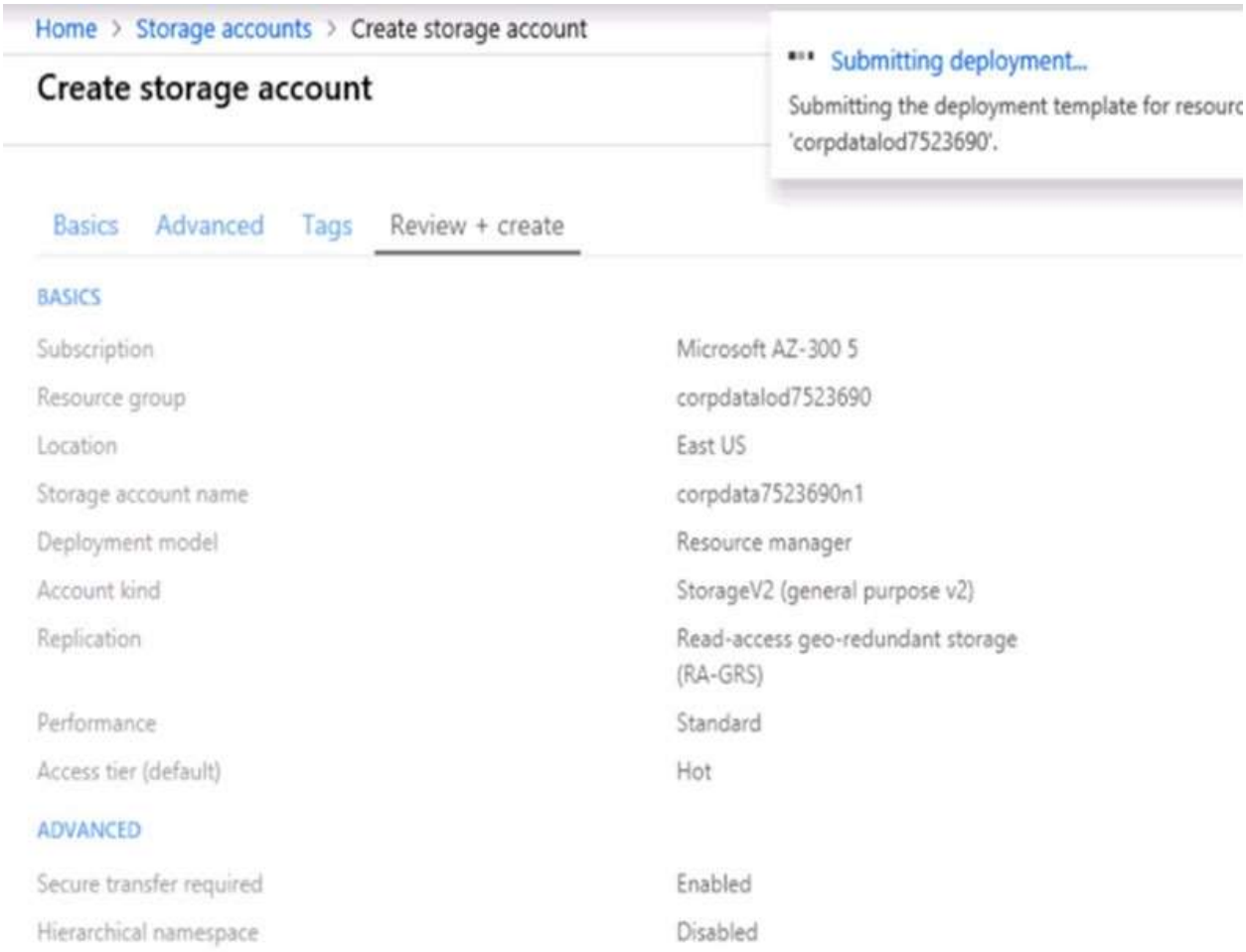
Resource group: Create new -
Subnet address range: 10.0.0.0/24
Subscription and location: Select your subscription and location.
Step 5: Repeat steps 3-5 for VNET1005b (10.1.0.0/16, 10.1.0.0/24), and for VNET1005c 10.2.0.0/16, 10.2.0.0/24).
References:
https://docs.microsoft.com/en-us/azure/virtual-network/create-virtual-network-classic

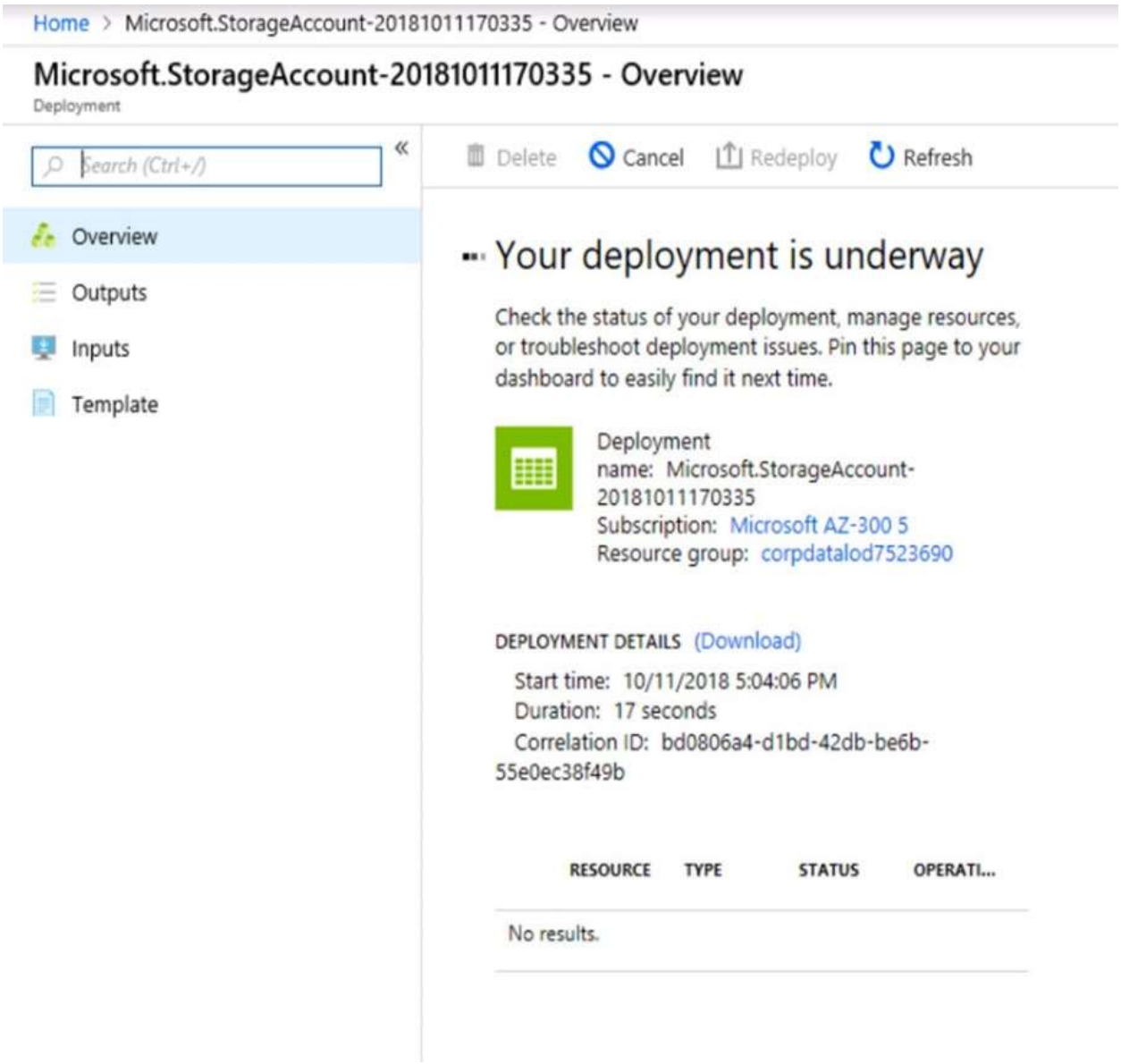
Question #61*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

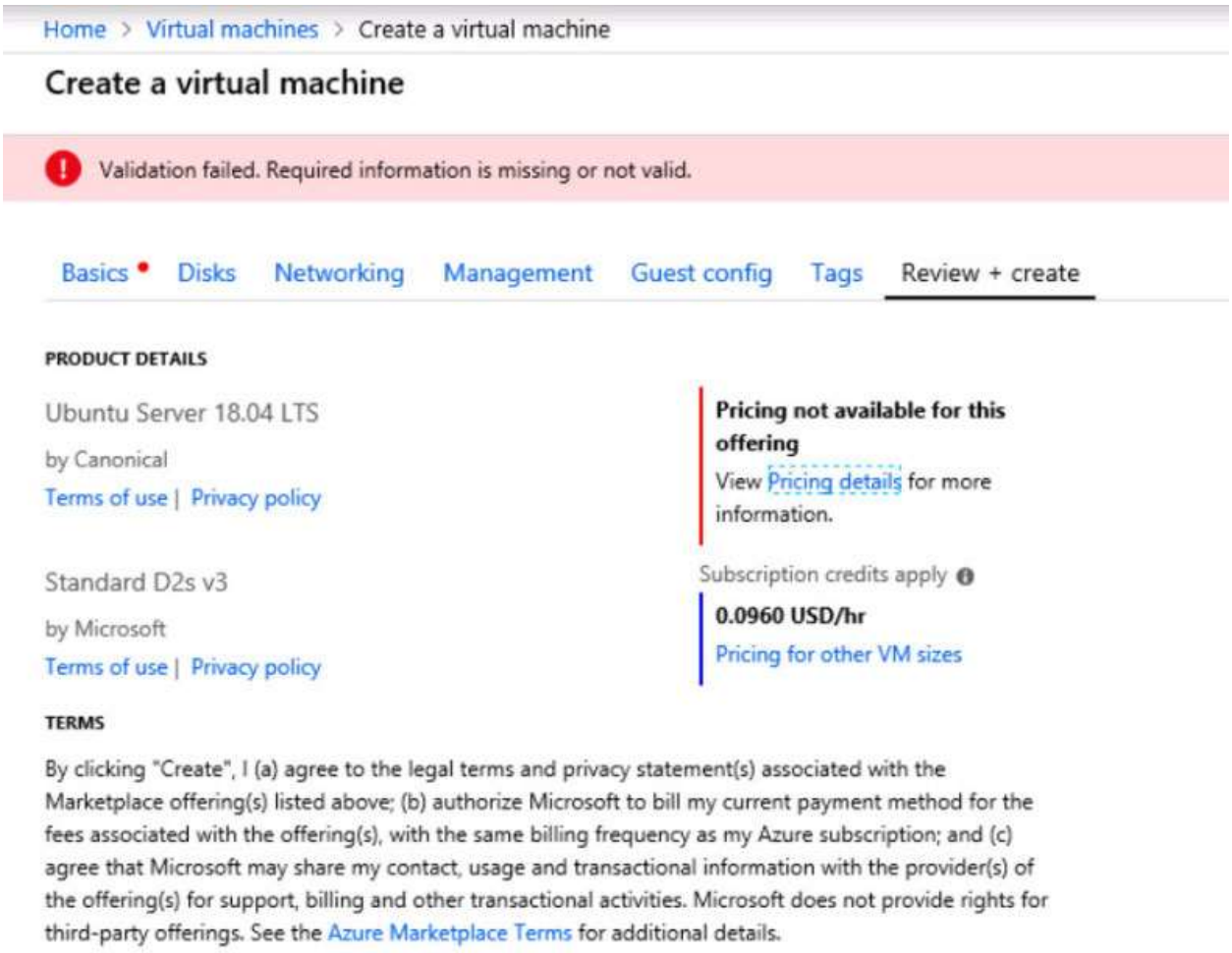












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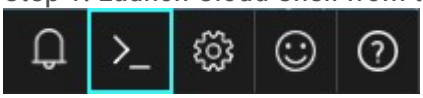
To start the lab -
You may start the lab by clicking the Next button.
You plan to deploy several Azure virtual machines and to connect them to a virtual network named VNET1007.
You need to ensure that future virtual machines on VNET1007 can register their name in an internal DNS zone named corp8548984.com. The zone must NOT be hosted on a virtual machine.
What should you do from Azure Cloud Shell?
To complete this task, start Azure Cloud Shell and select PowerShell (Linux), Click Show Advanced Settings, and then enter corpdata7523690n1 in the
Storage account text box and File1 share text box. Click Create storage, and then complete the task.

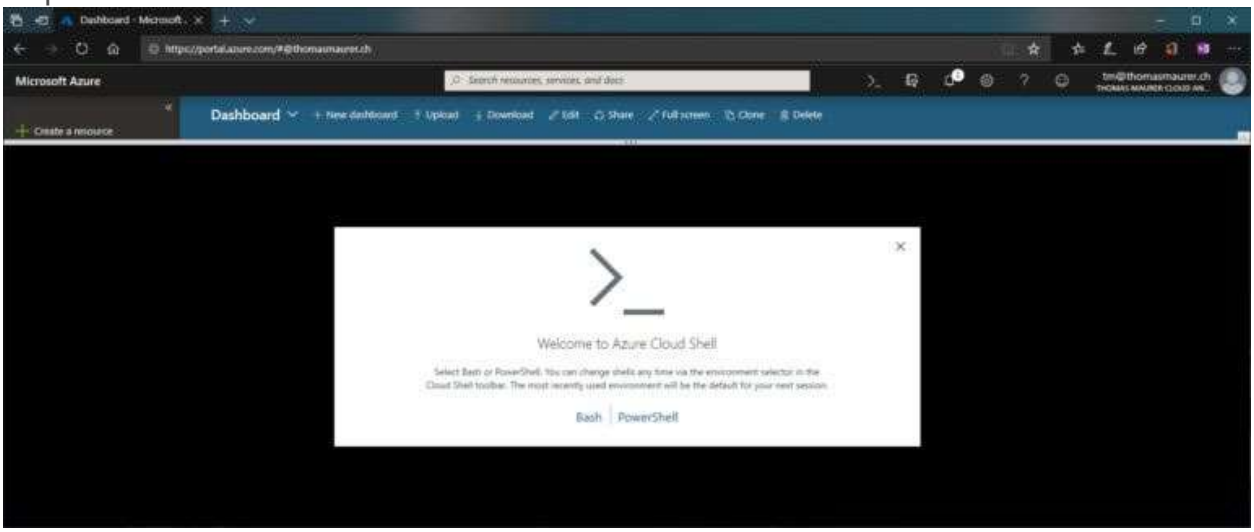
Hide Solution Discussion 14

Correct Answer: *See solution below.*

Step 1: Launch Cloud Shell from the top navigation of the Azure portal.

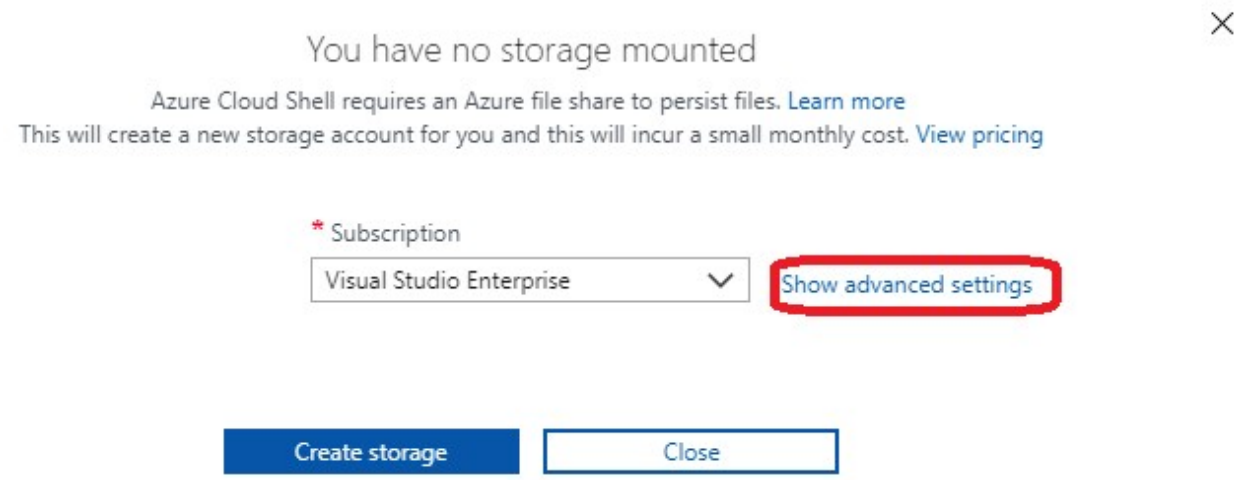


Step 2: Select PowerShell -

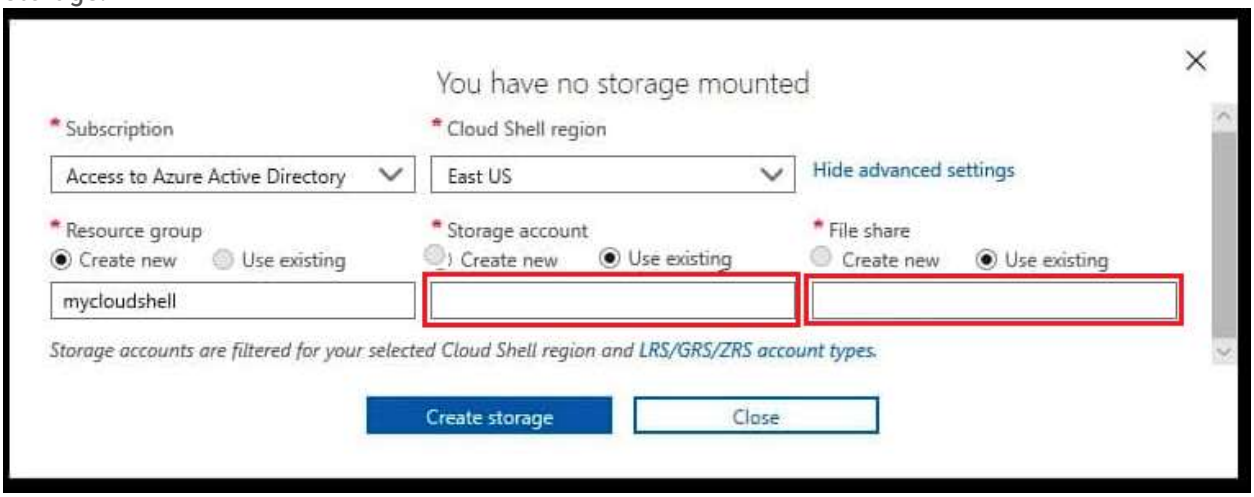


When you start the Azure Cloud Shell for the first time, you will be prompted to create a storage account in order to associate a new Azure File Share to persist files across sessions.

Step 3: Click Show Advanced settings.

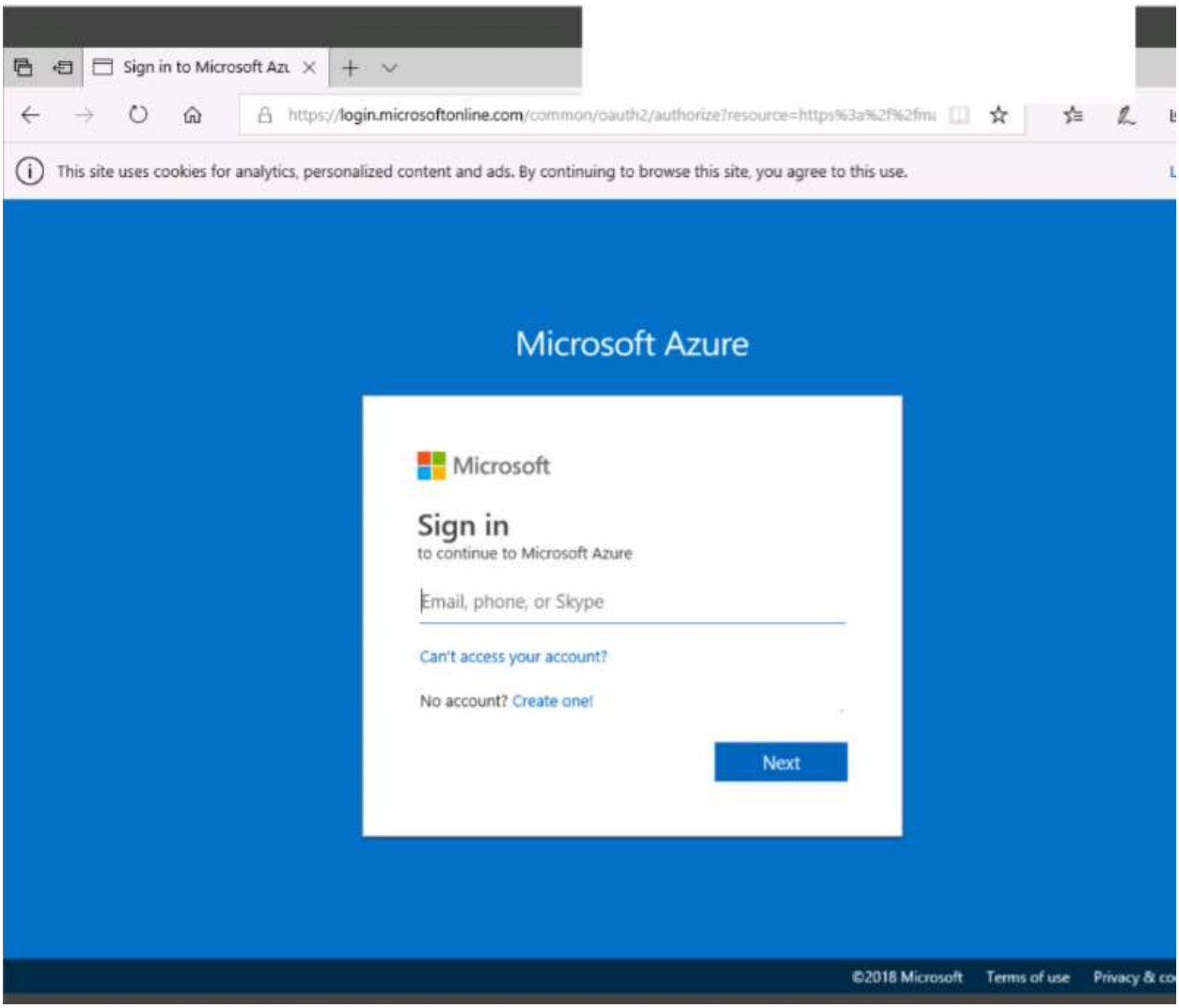


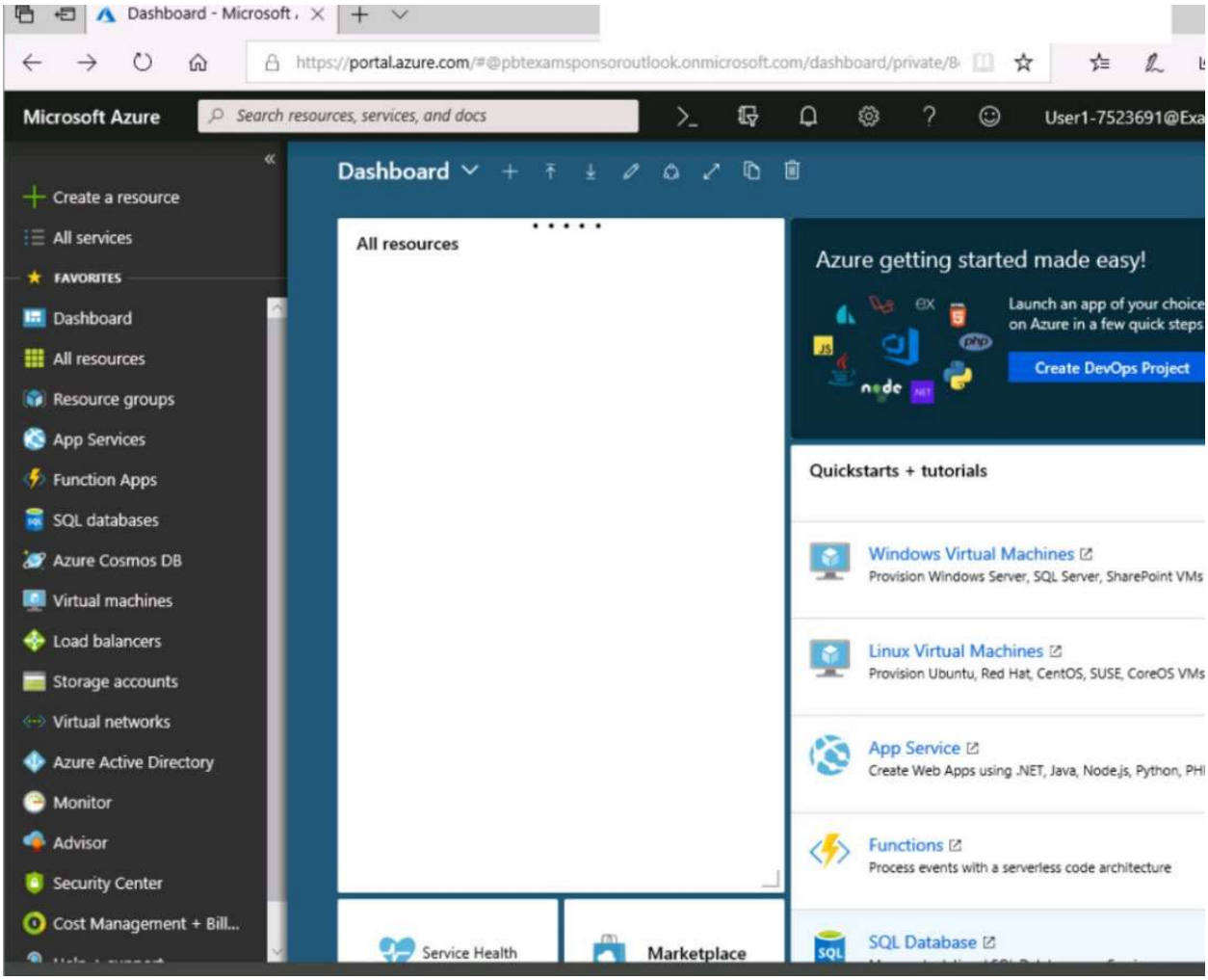
Step 4: Enter corp8548984n1 in the Storage account text box and File1 share text box. Click Create storage.

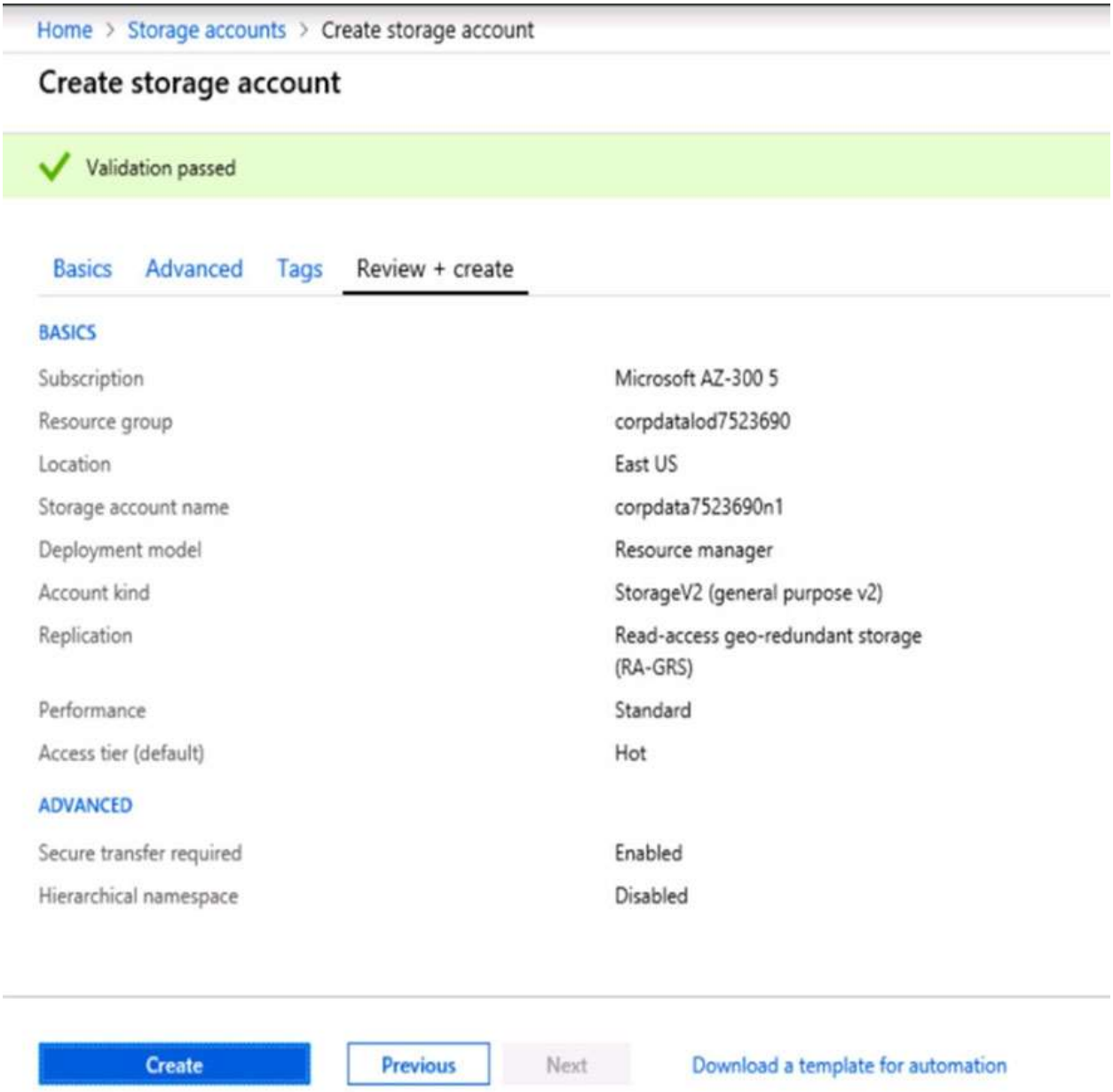


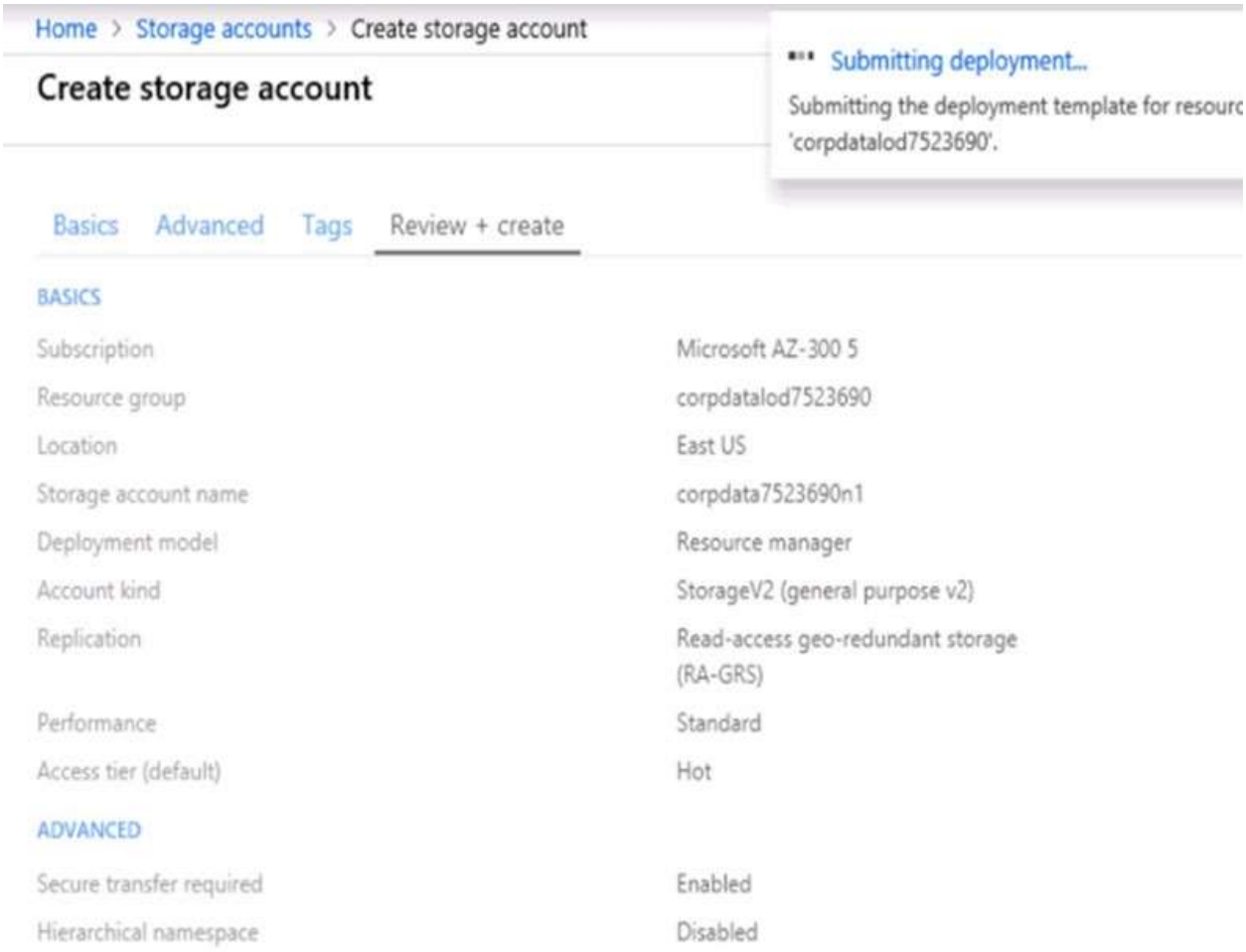
Step 5: Enter the following command at the powershell command prompt:
New-AzDnsZone -Name "corp8548984.com"
-ResourceGroupName "mycloudshell"
-ZoneType Private
-RegistrationVirtualNetworkId VNET1007
Note: A DNS zone is created by using the New-AzDnsZone cmdlet with a value of Private for the ZoneType parameter.
References:
https://docs.microsoft.com/en-us/azure/dns/private-dns-getstarted-powershell
https://docs.microsoft.com/en-us/azure/cloud-shell/quickstart-powershell
https://docs.microsoft.com/en-us/powershell/module/az.dns/new-azdnszone?view=azps-1.5.0

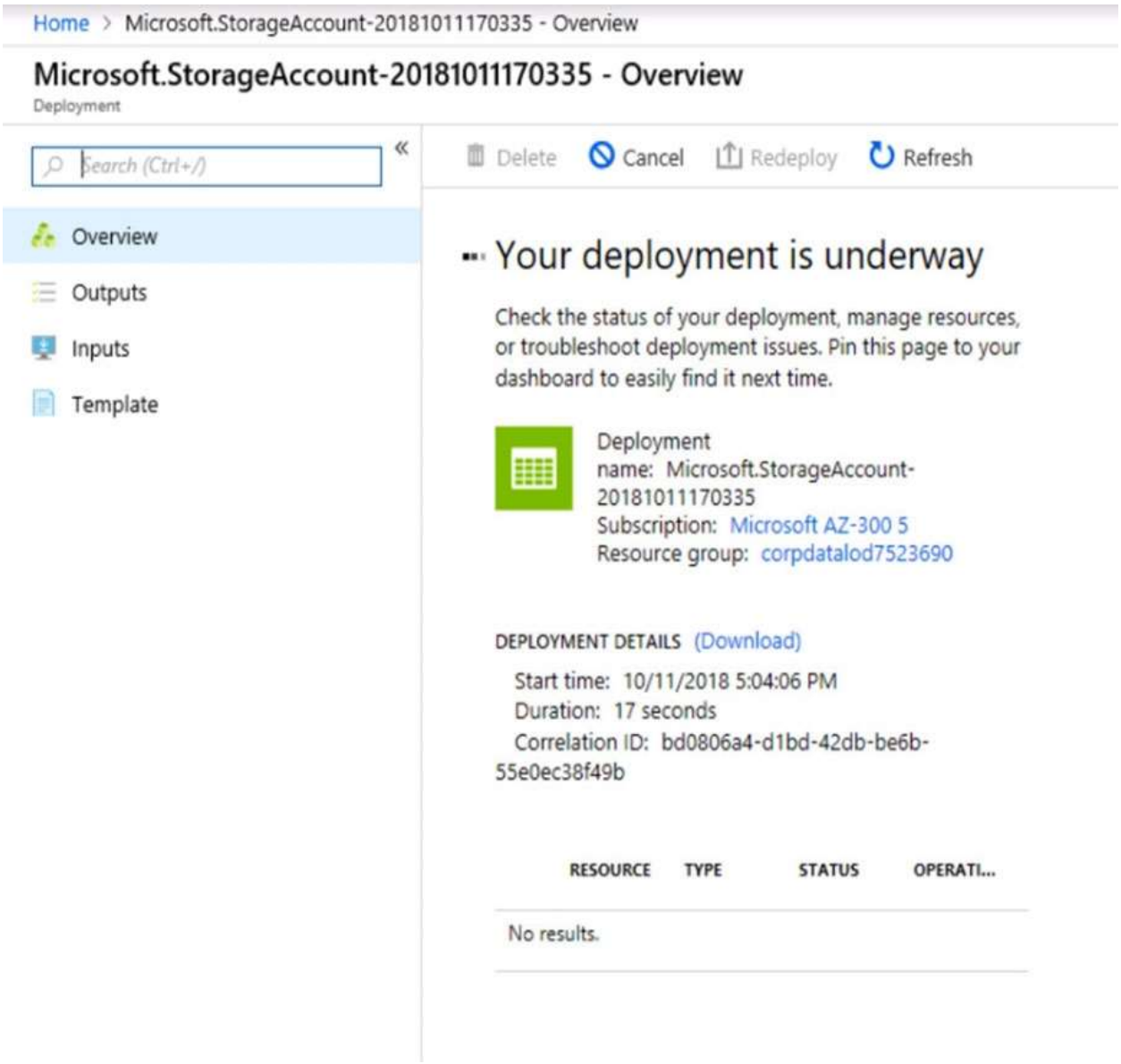
Question #62*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

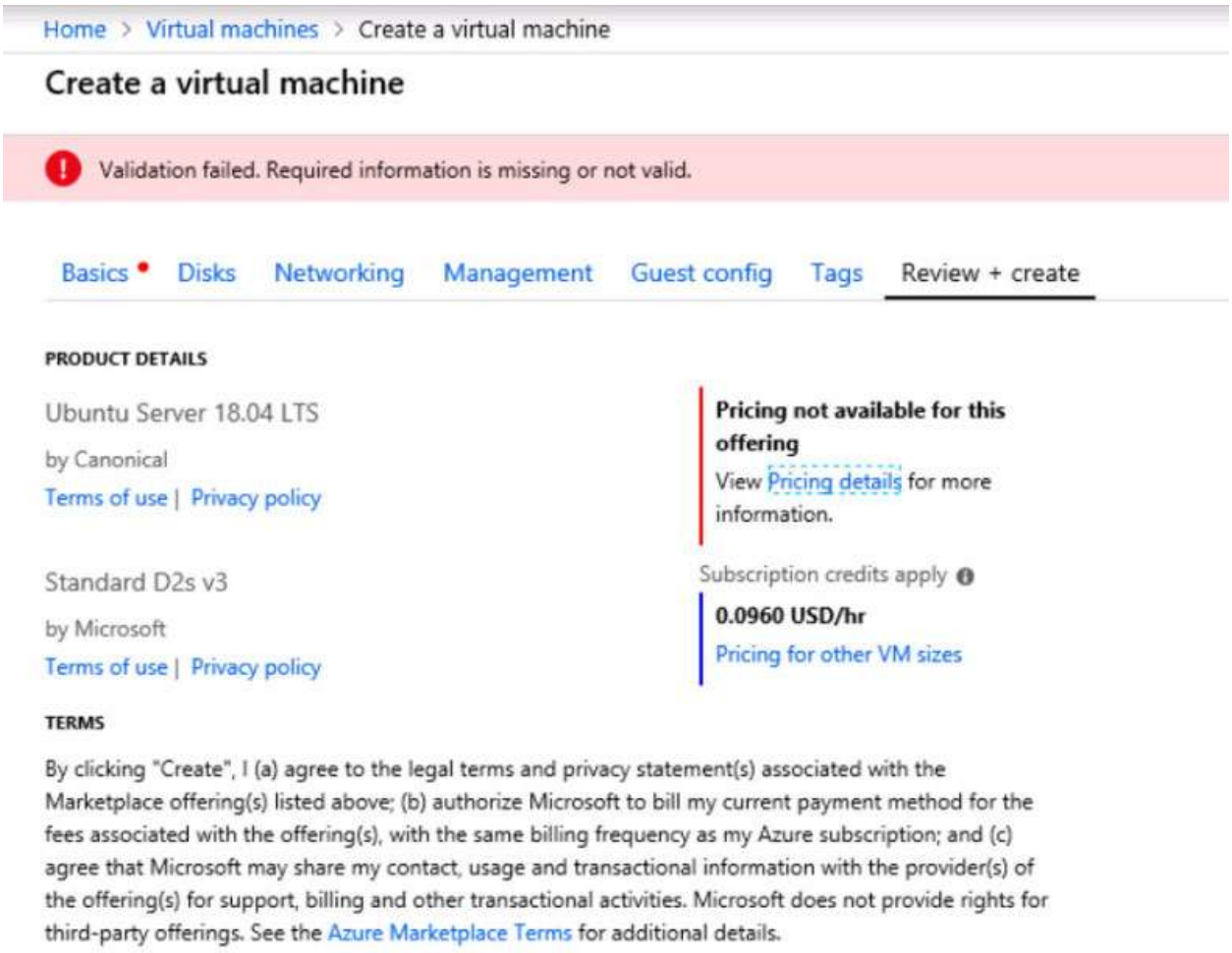












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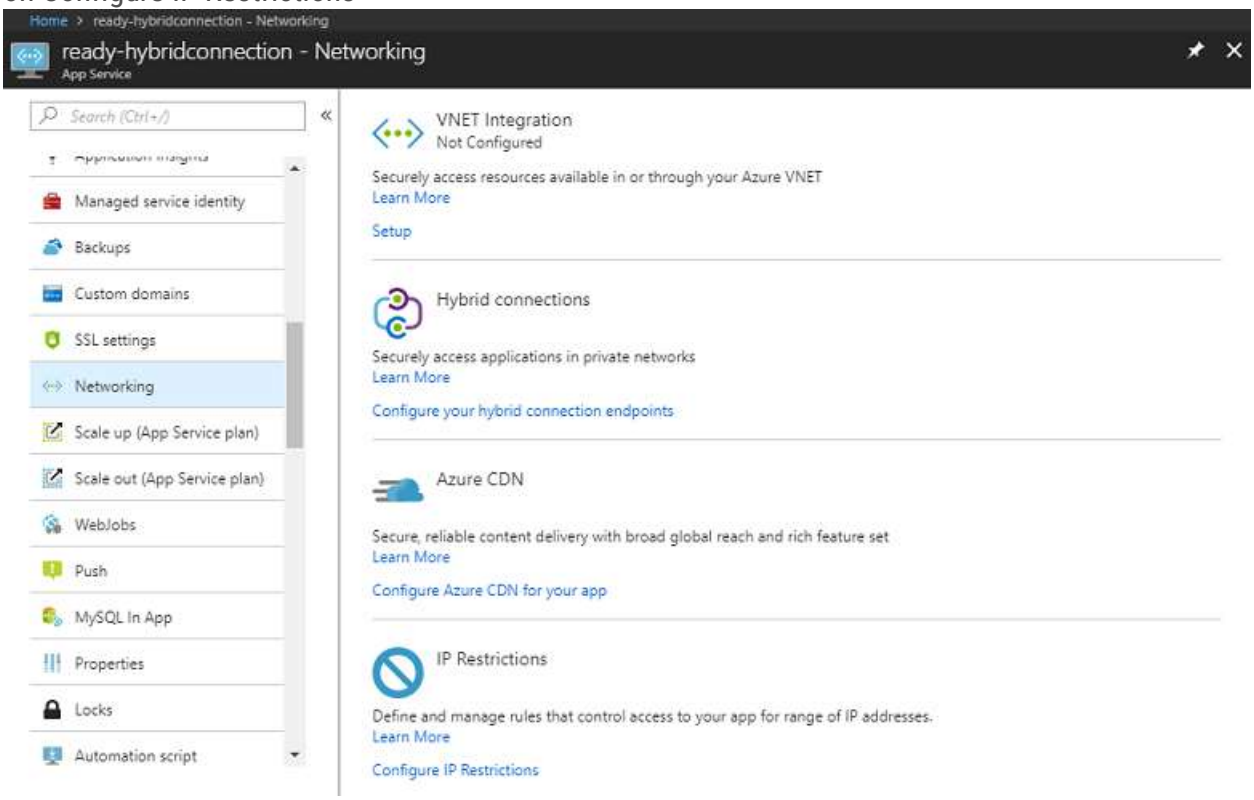
To start the lab -
You may start the lab by clicking the Next button.
Another administrator reports that she is unable to configure a web app named corplod10217507n3 to prevent all connections from an IP address of 11.0.0.11.
You need to modify corplod10217507n3 to successfully prevent the connections from the IP address. The solution must minimize Azure-related costs.
What should you do from the Azure portal?

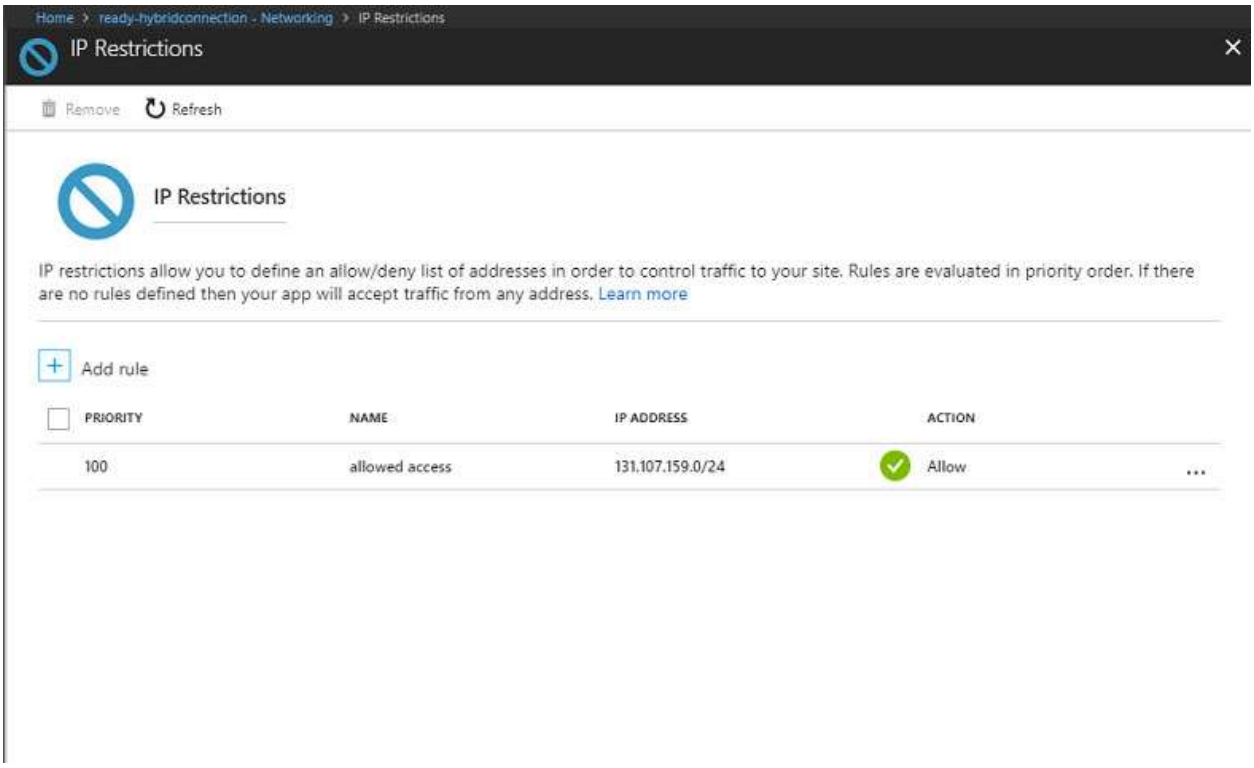
Hide Solution Discussion 6

Correct Answer: *See explanation below.*
Step 1:
Find and select application corplod10217507n3:
1. In the Azure portal, on the left navigation panel, click Azure Active Directory.
2. In the Azure Active Directory blade, click Enterprise applications.
Step 2:
To add an IP restriction rule to your app, use the menu to open Network>IP Restrictions and click on Configure IP Restrictions



Step 3:

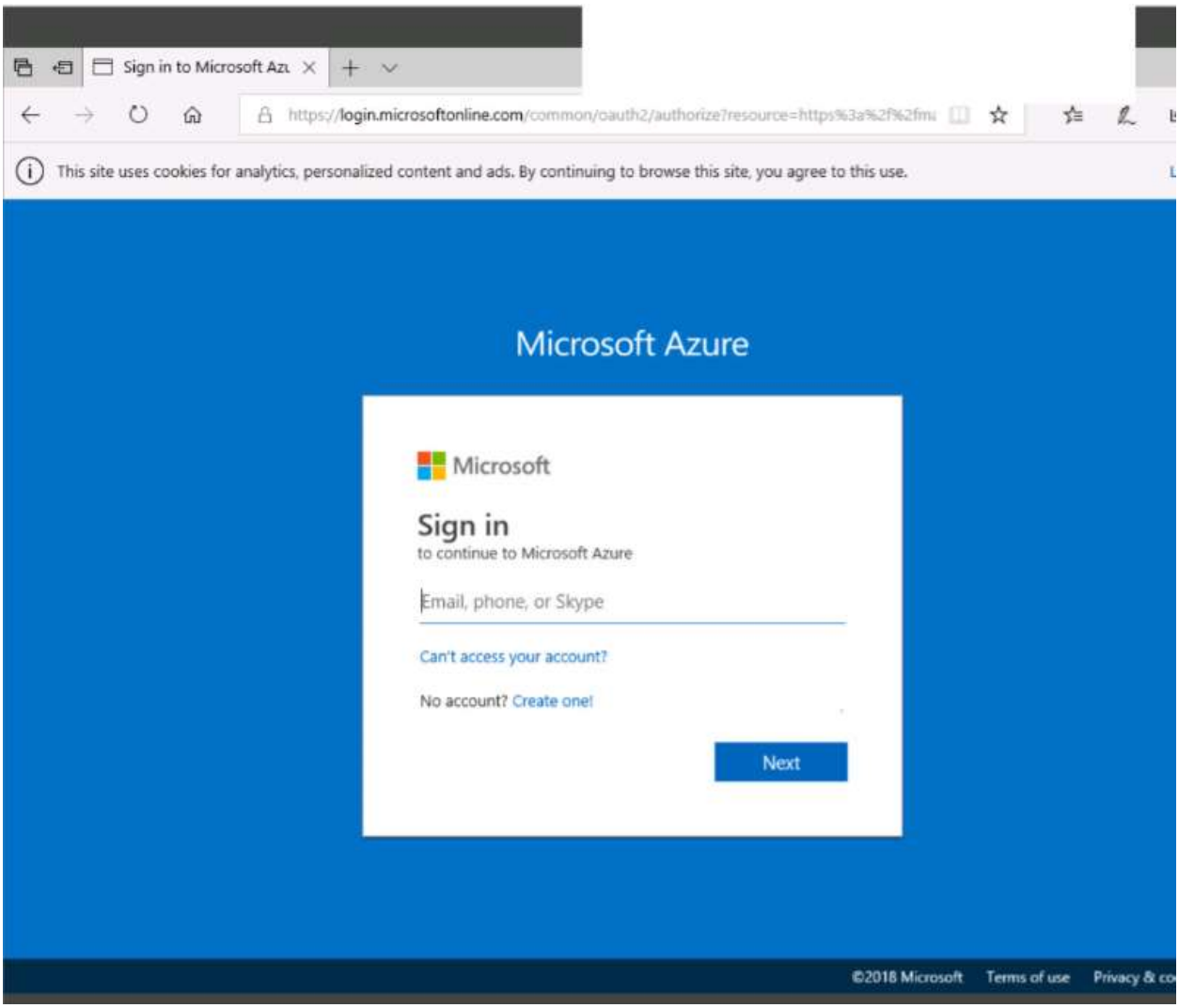
Click Add rule -
You can click on [+] Add to add a new IP restriction rule. Once you add a rule, it will become effective immediately.

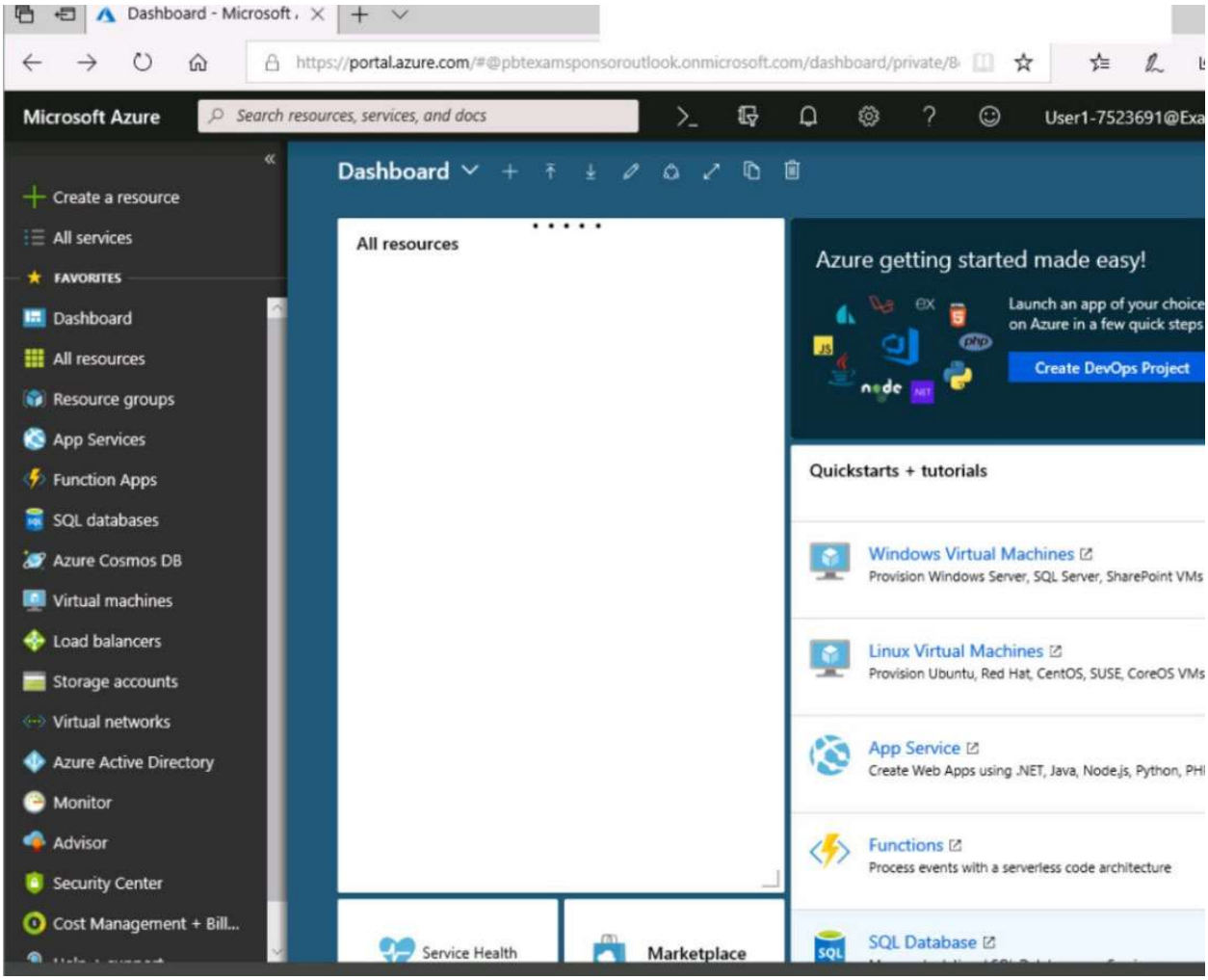


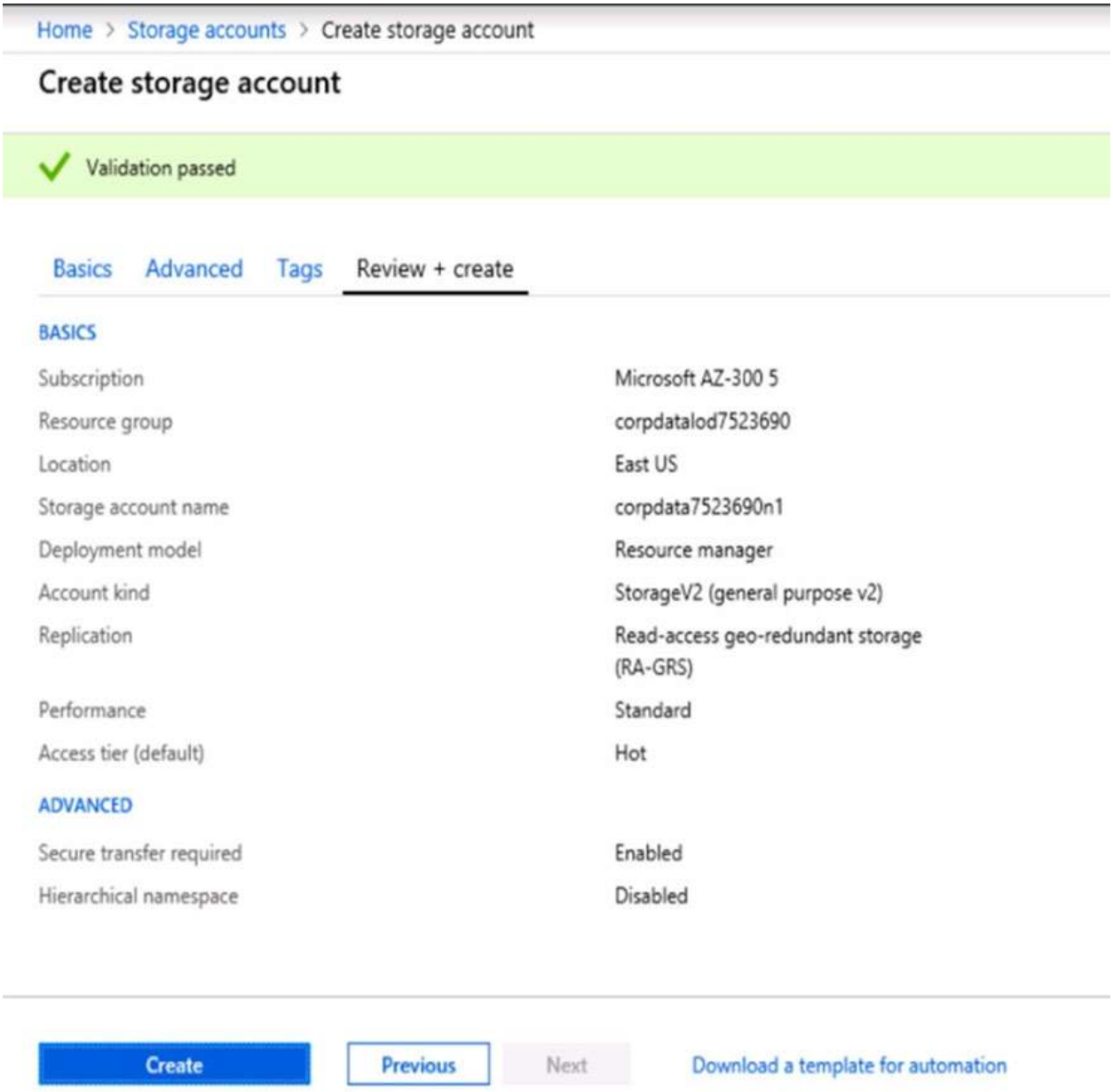
Step 4:
Add name, IP address of 11.0.0.11, select Deny, and click Add Rule

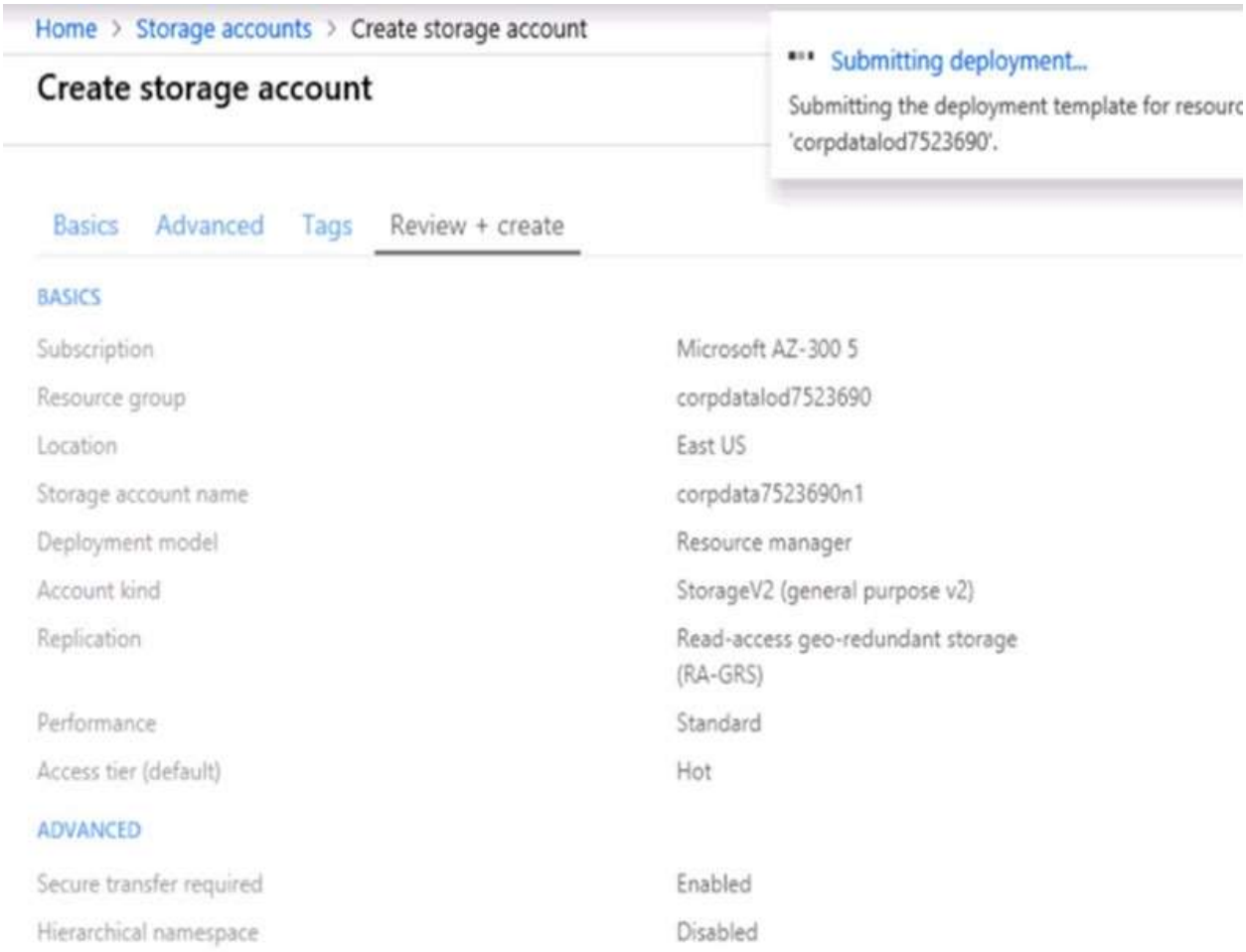
References:
https://docs.microsoft.com/en-us/azure/app-service/app-service-ip-restrictions

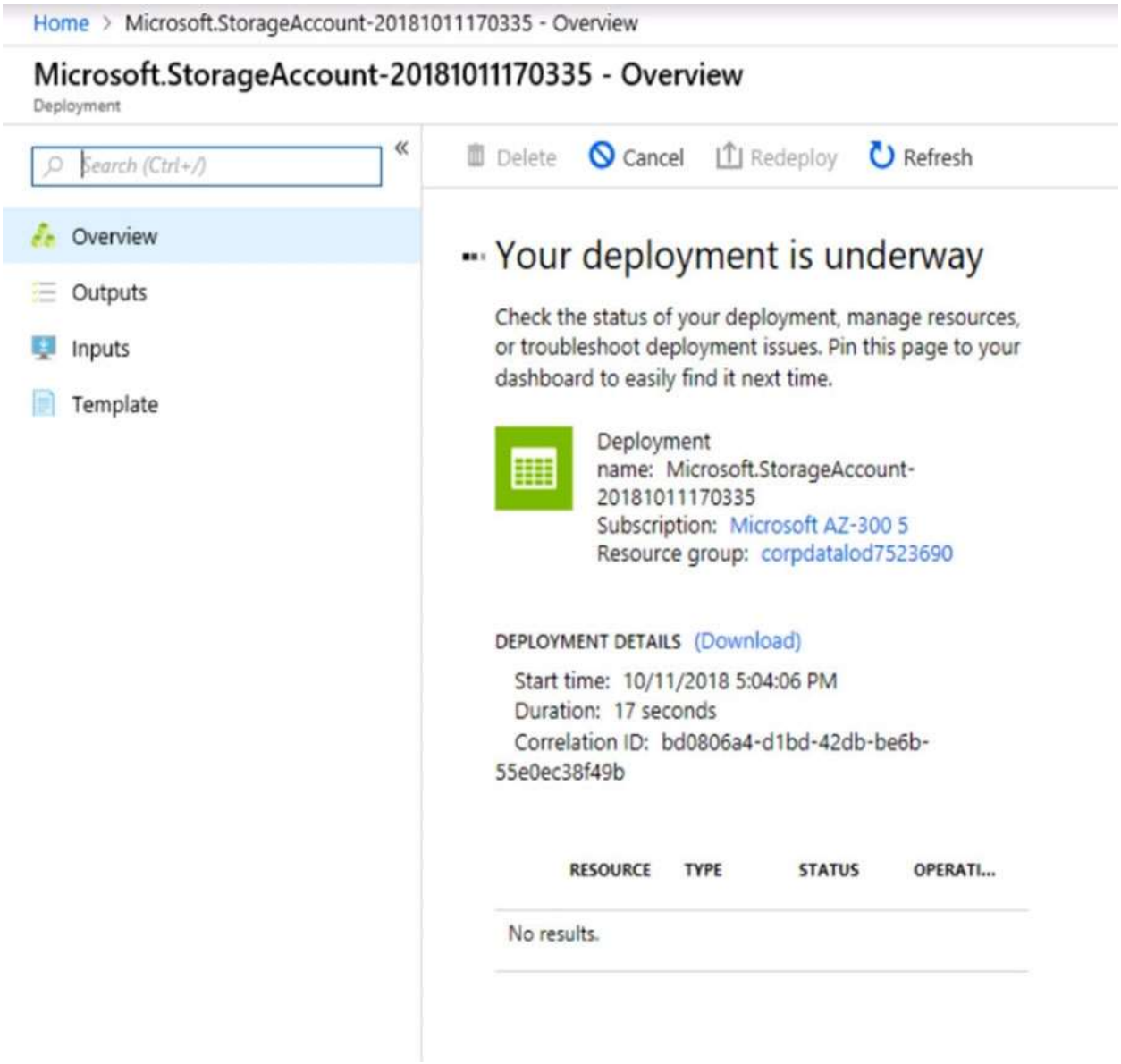
Question #63*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

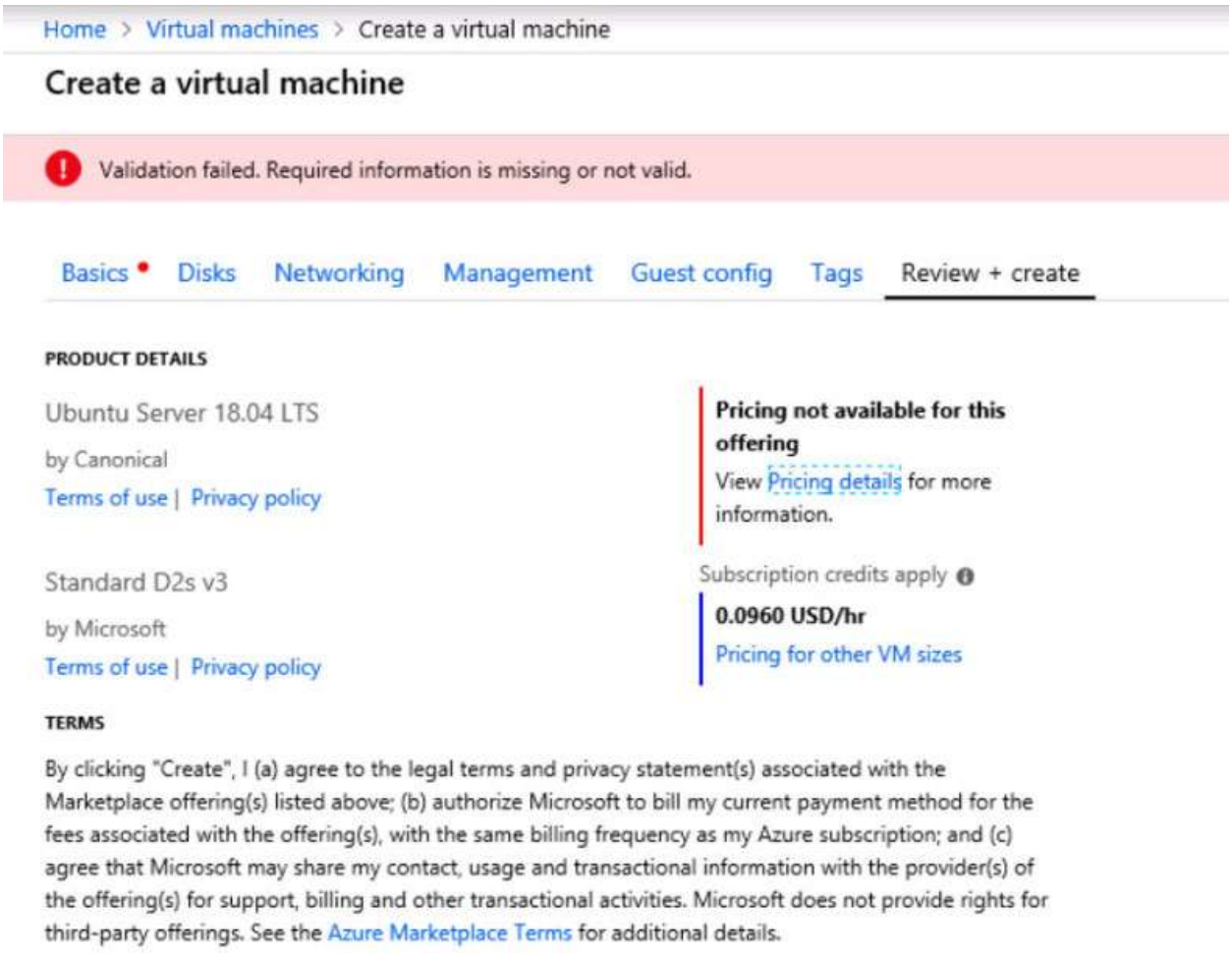












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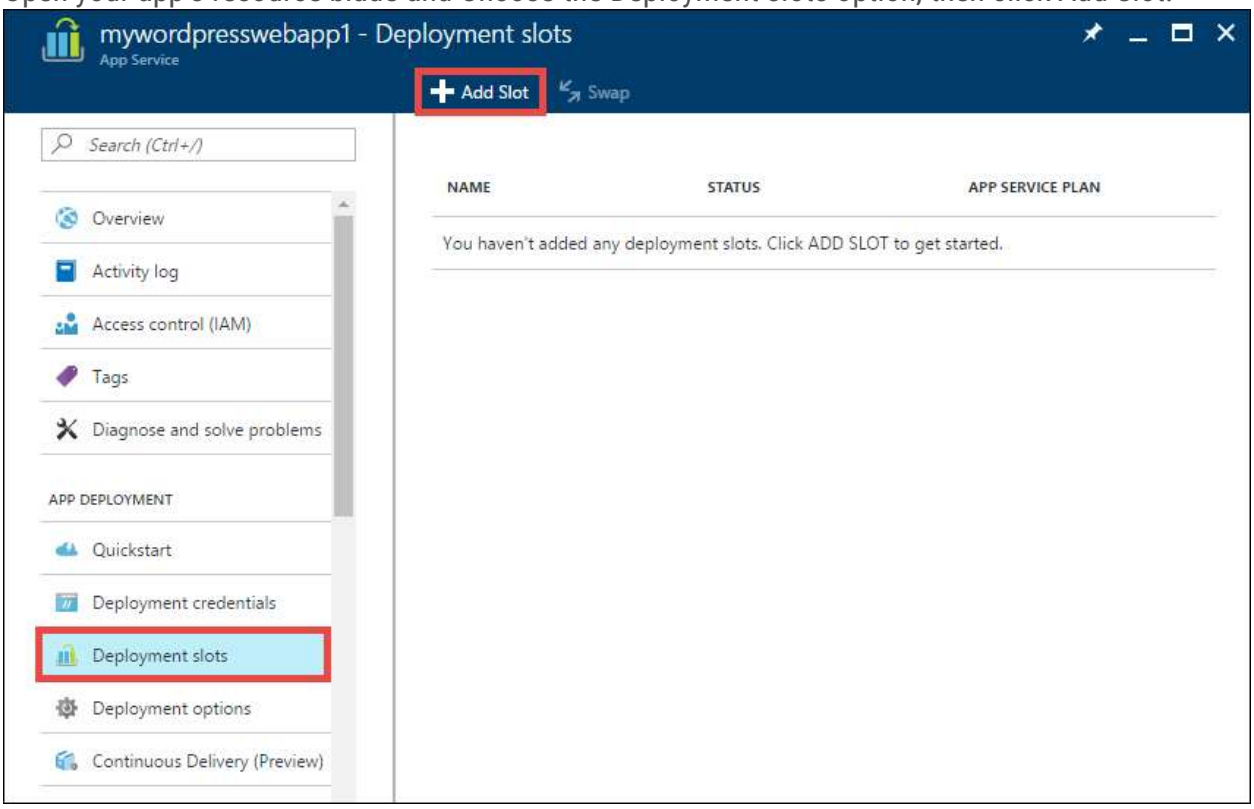
To start the lab -
You may start the lab by clicking the Next button.
You need to add a deployment slot named staging to an Azure web app named corplod10217507n4. The solution must meet the following requirements:
- When new code is deployed to staging, the code must be swapped automatically to the production slot.
- Azure-related costs must be minimized.
What should you do from the Azure portal?

Hide Solution Discussion 5

Correct Answer: *See explanation below.*

Step 1:
Locate and open the corplod10217507n4 web app.
1. In the Azure portal, on the left navigation panel, click Azure Active Directory.
2. In the Azure Active Directory blade, click Enterprise applications.

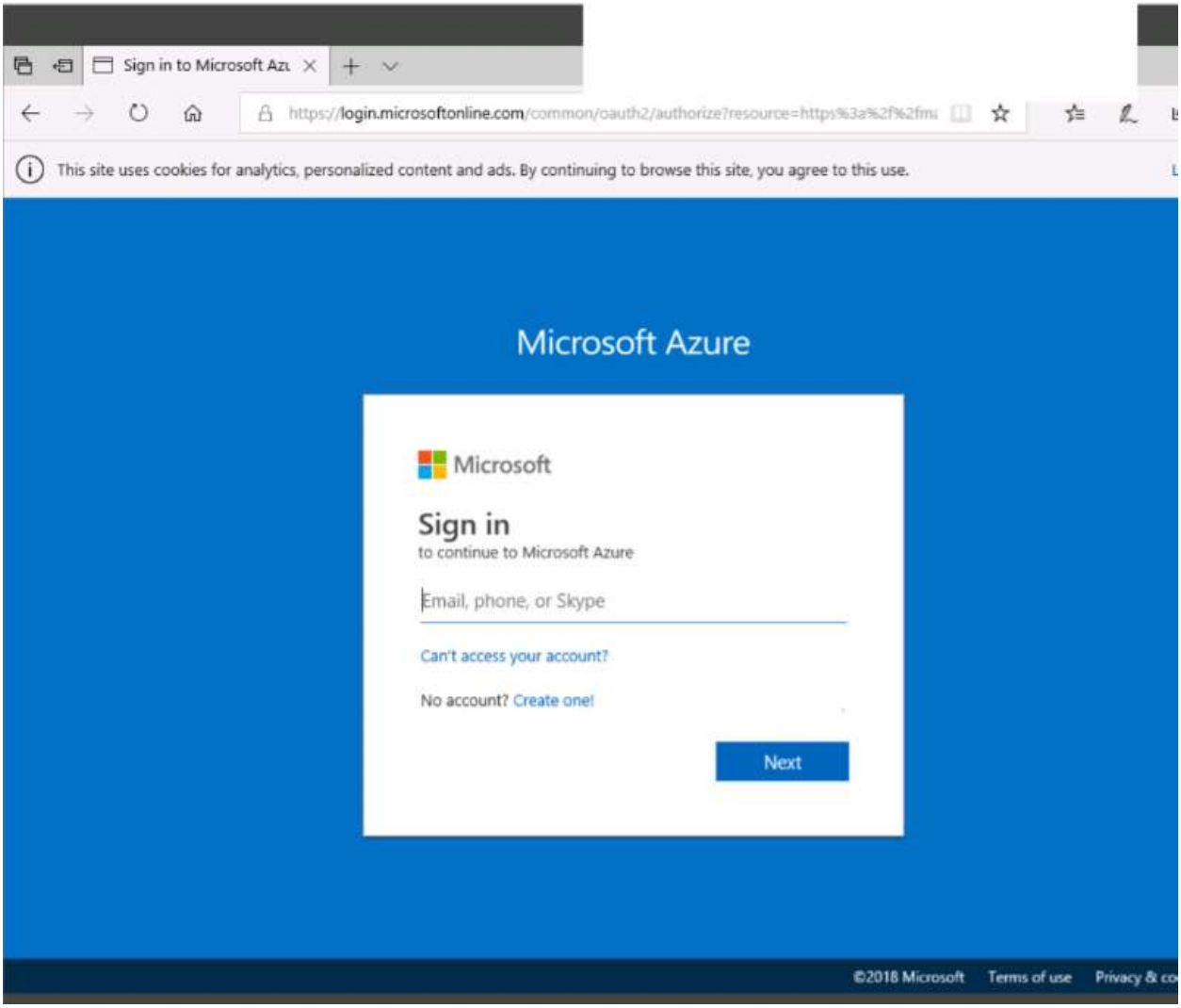
Step 2:
Open your app's resource blade and Choose the Deployment slots option, then click Add Slot.

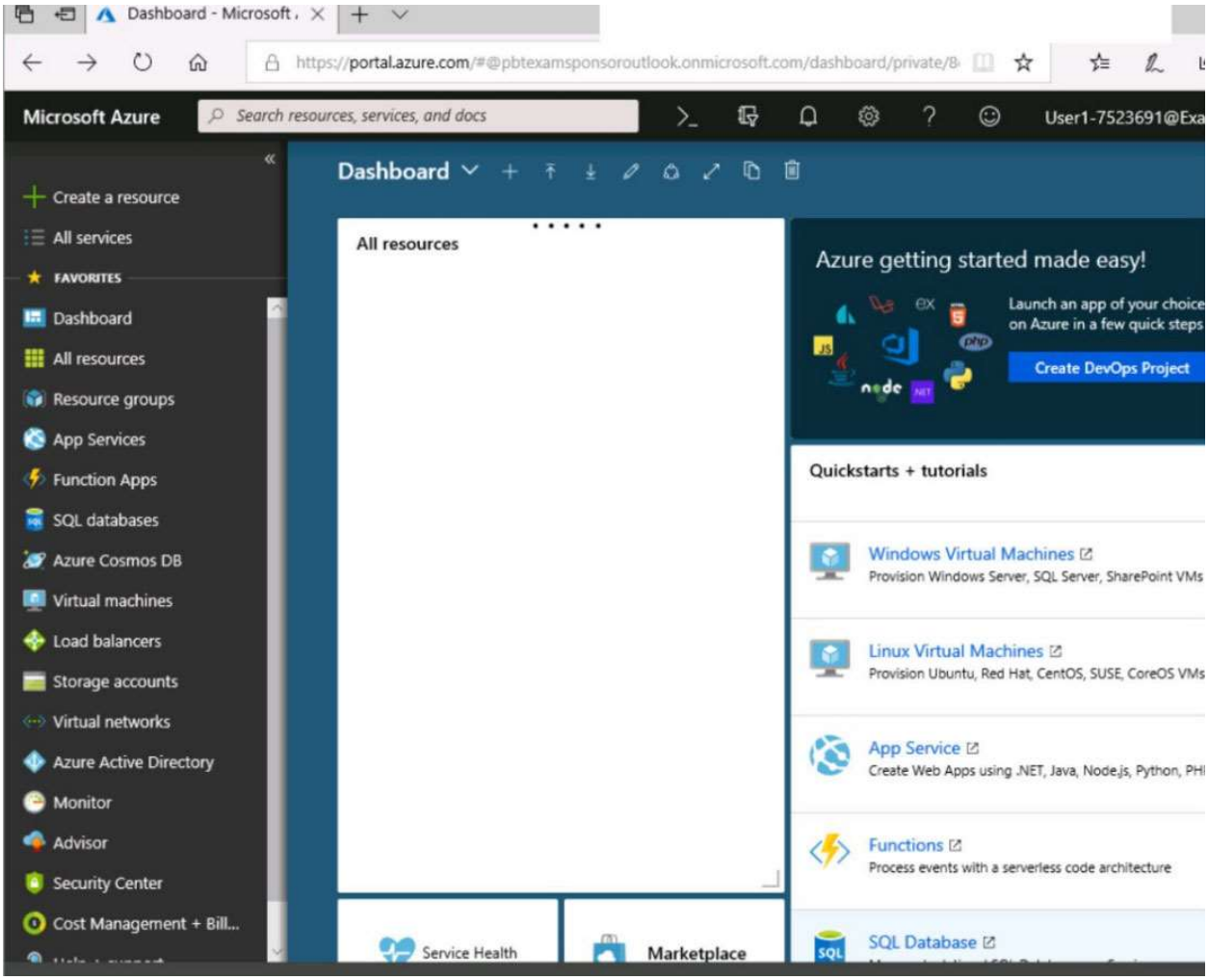


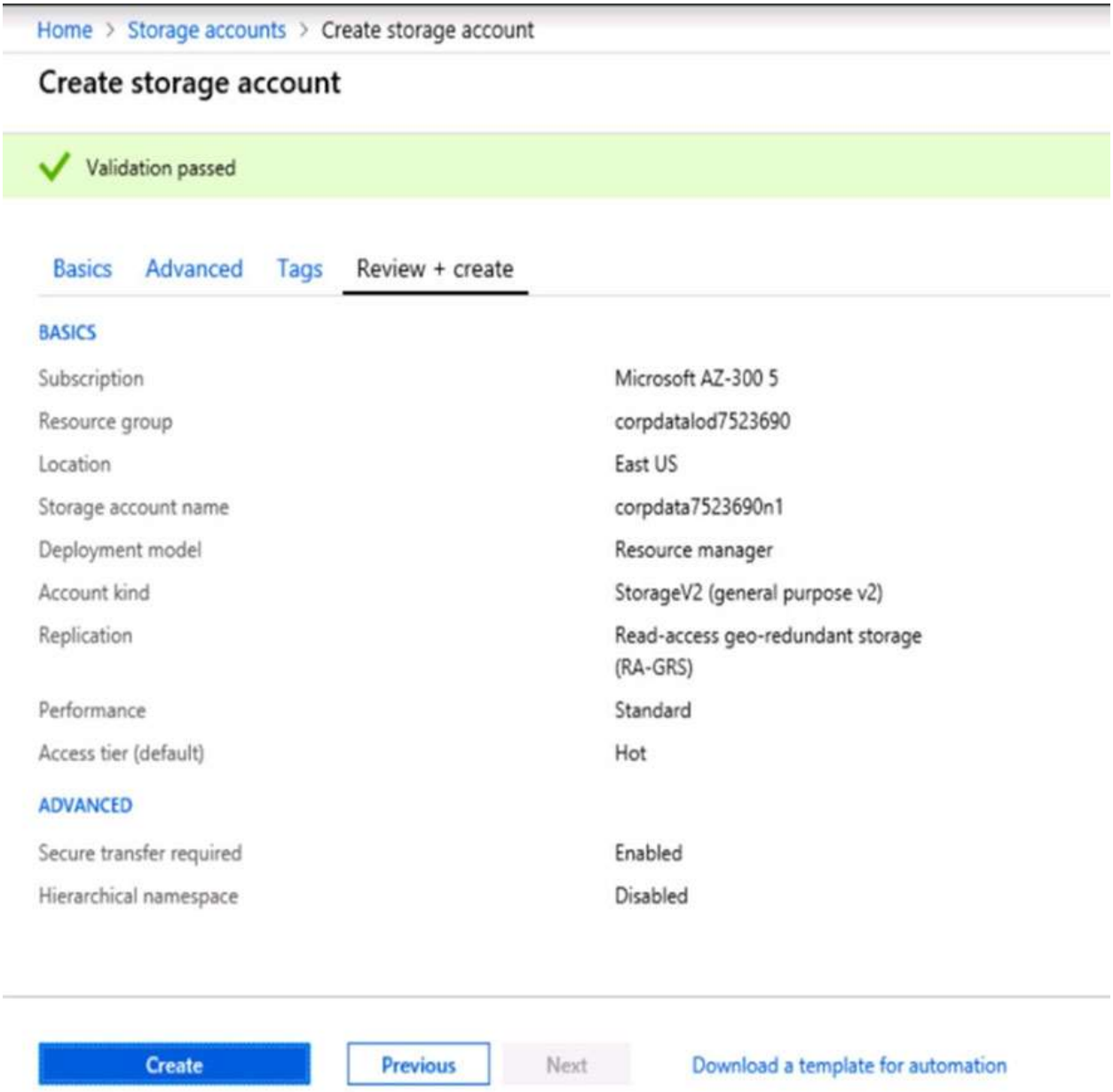
Step 3:
In the Add a slot blade, give the slot a name, and select whether to clone app configuration from another existing deployment slot. Click the check mark to continue.
The first time you add a slot, you only have two choices: clone configuration from the default slot in production or not at all.

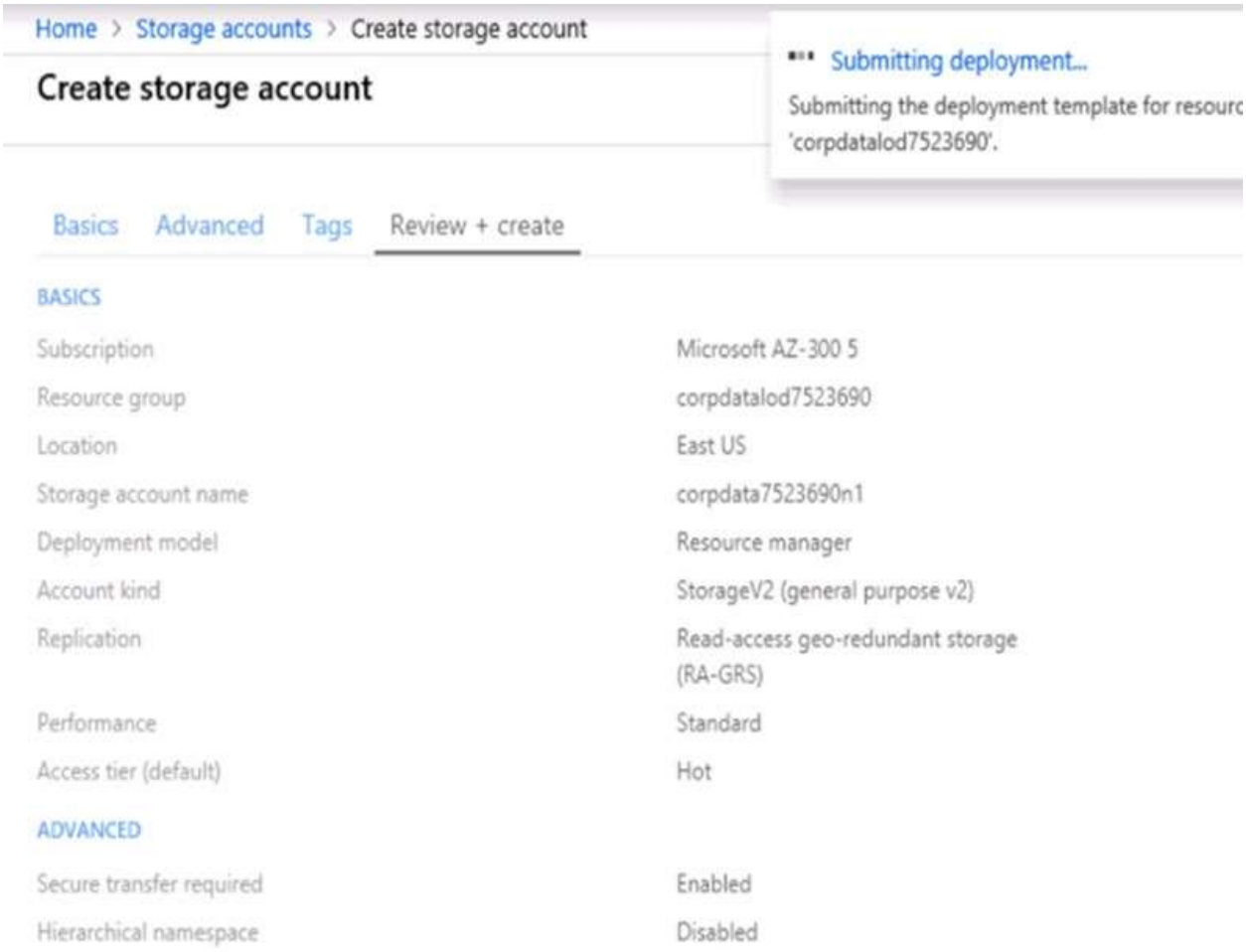
References:
https://docs.microsoft.com/en-us/azure/app-service/web-sites-staged-publishing

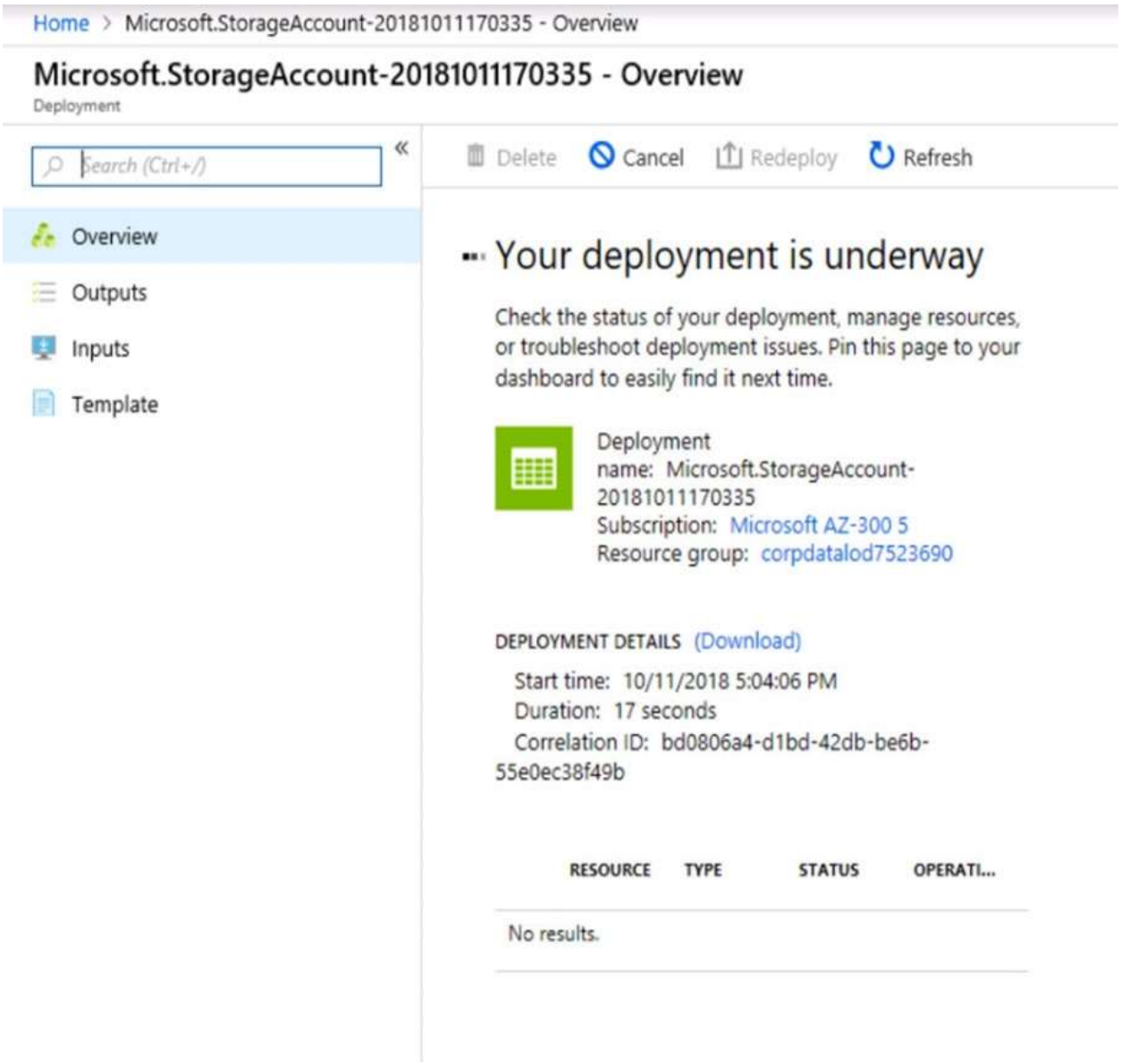
Question #64*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

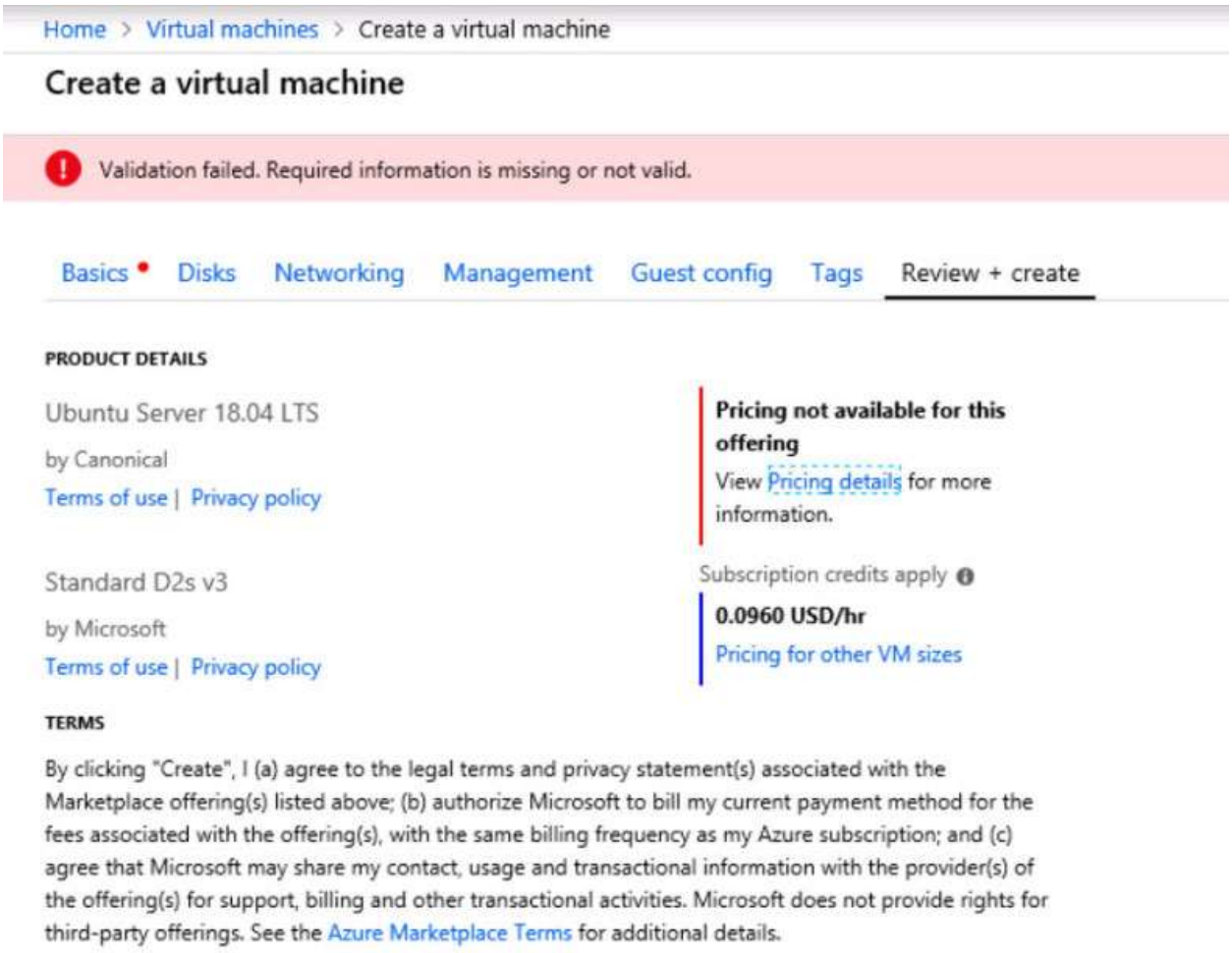












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Overview -
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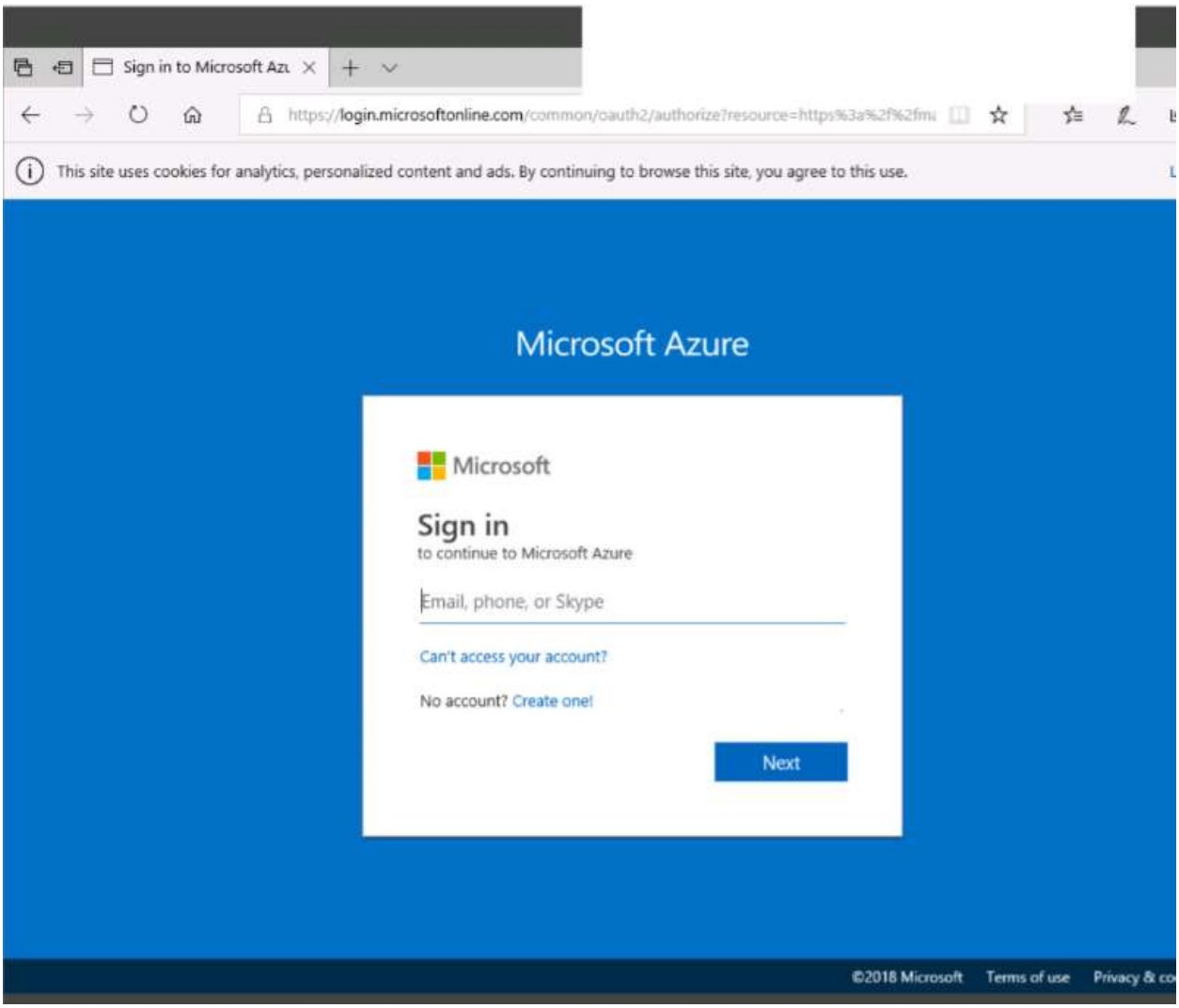
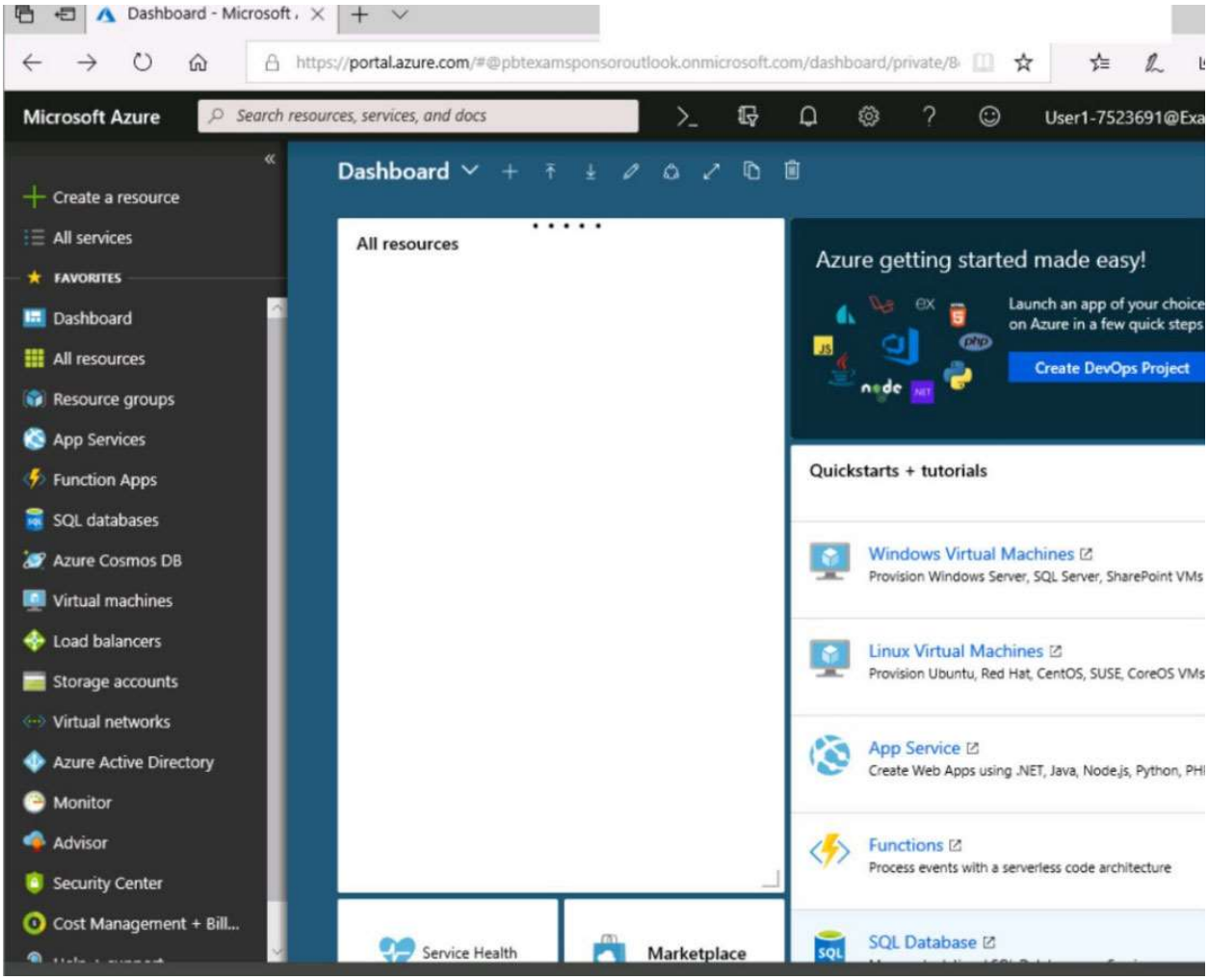
To start the lab -
You may start the lab by clicking the Next button.
You plan to deploy an application gateway named appgw1015 to load balance internal IP traffic to the Azure virtual machines connected to subnet0.
You need to configure a virtual network named VNET1015 to support the planned application gateway.
What should you do from the Azure portal?

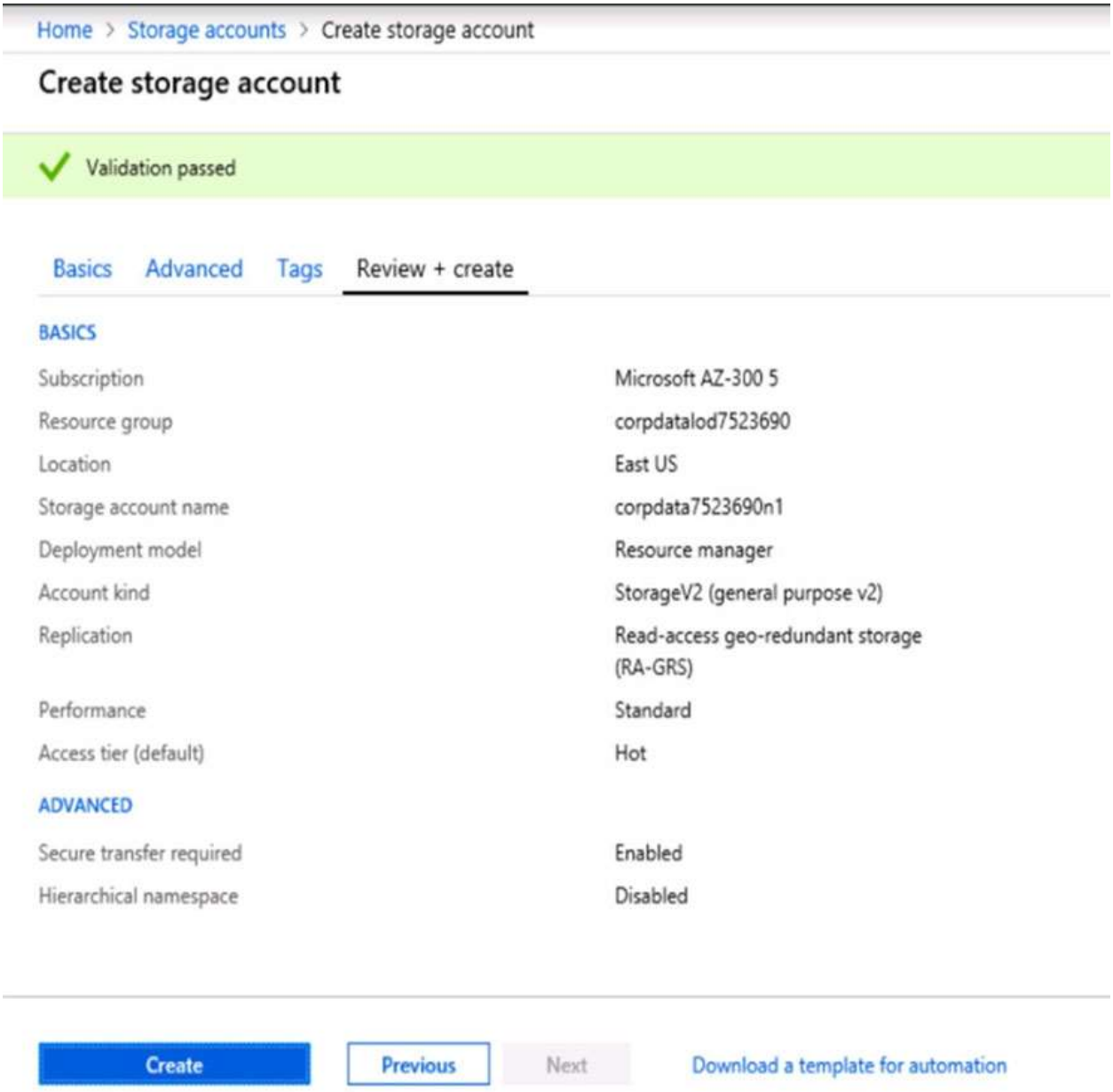
Hide Solution Discussion 7
Correct Answer: *See explanation below.*
Step 1:
Click Networking, Virtual Network, and select VNET1015.
Step 2:
Click Subnets, and Click +Add on the VNET1015 - Subnets pane that appears.
Step 3:
On the Subnets page, click +Gateway subnet at the top to open the Add subnet page.

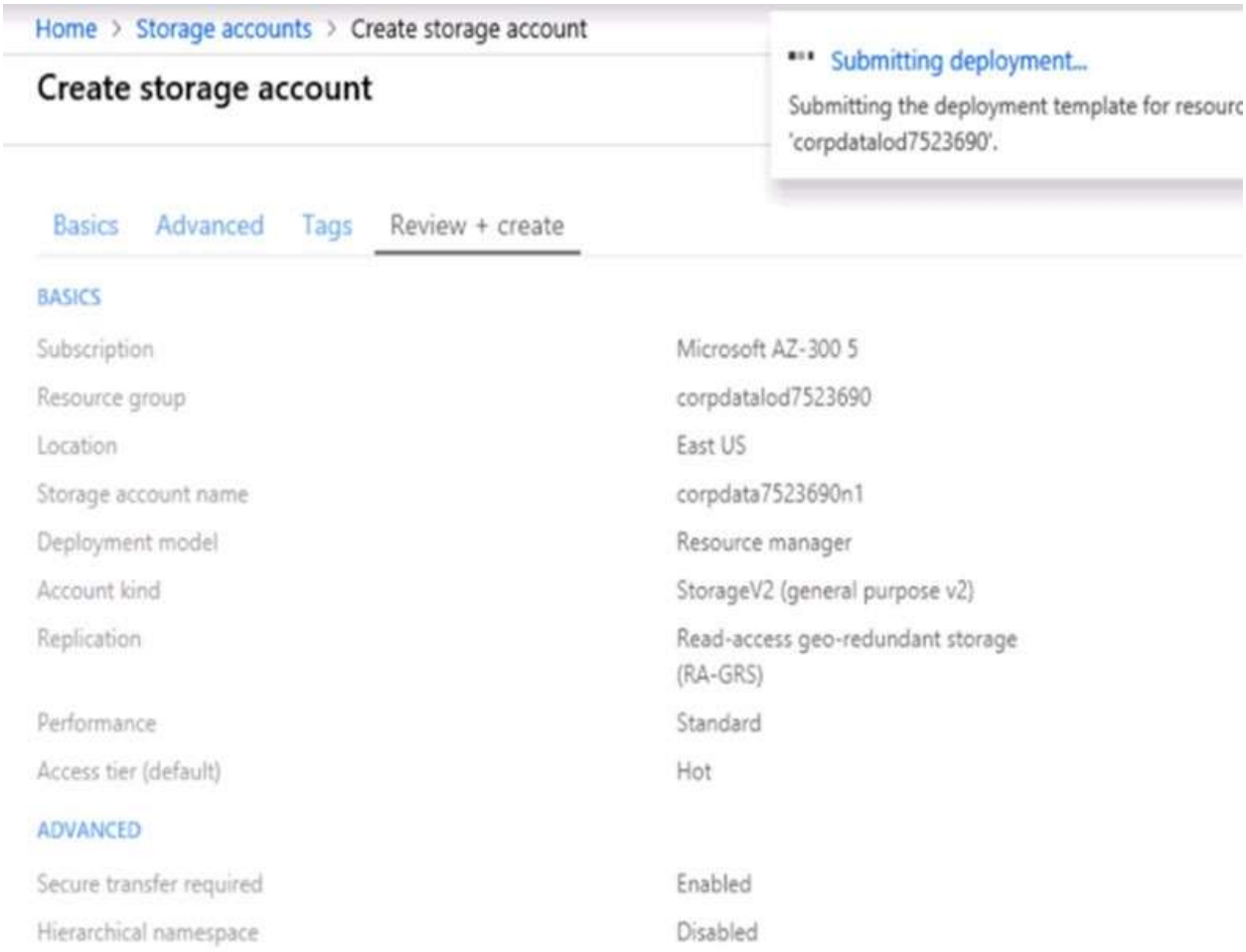
Step 4:
Locate subnet0 and add it.
References:
https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-portal

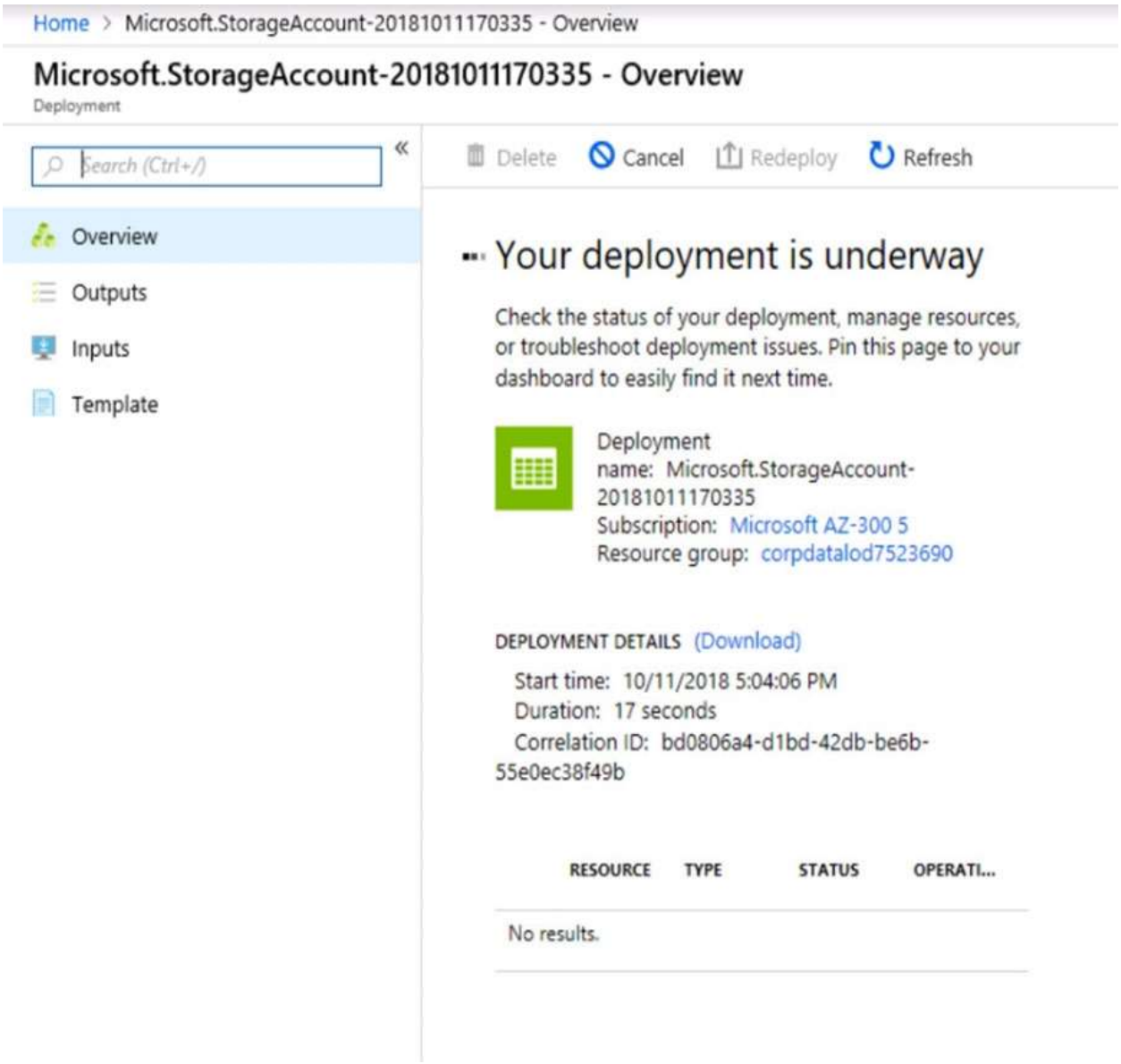
Question #65*Topic 5*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

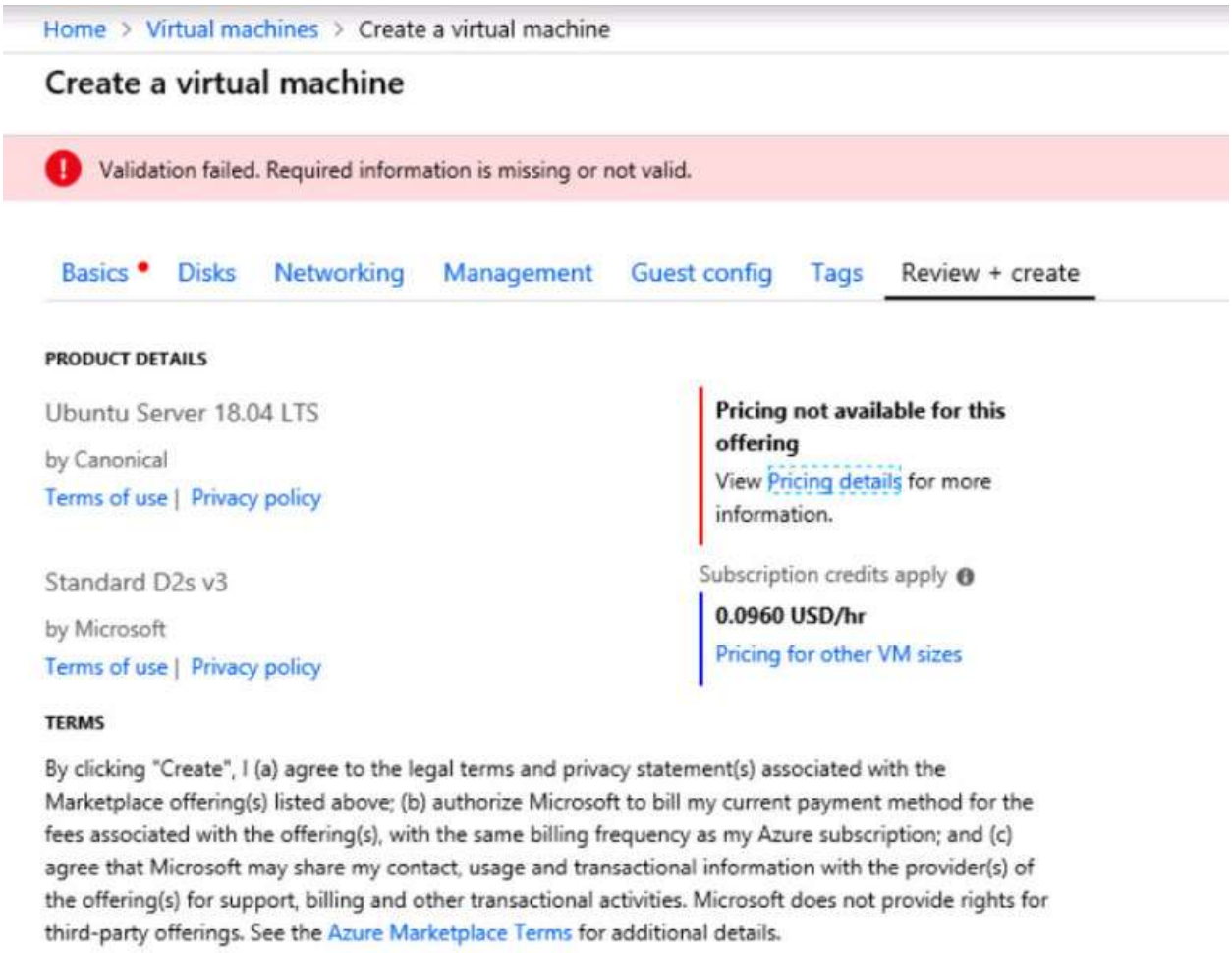












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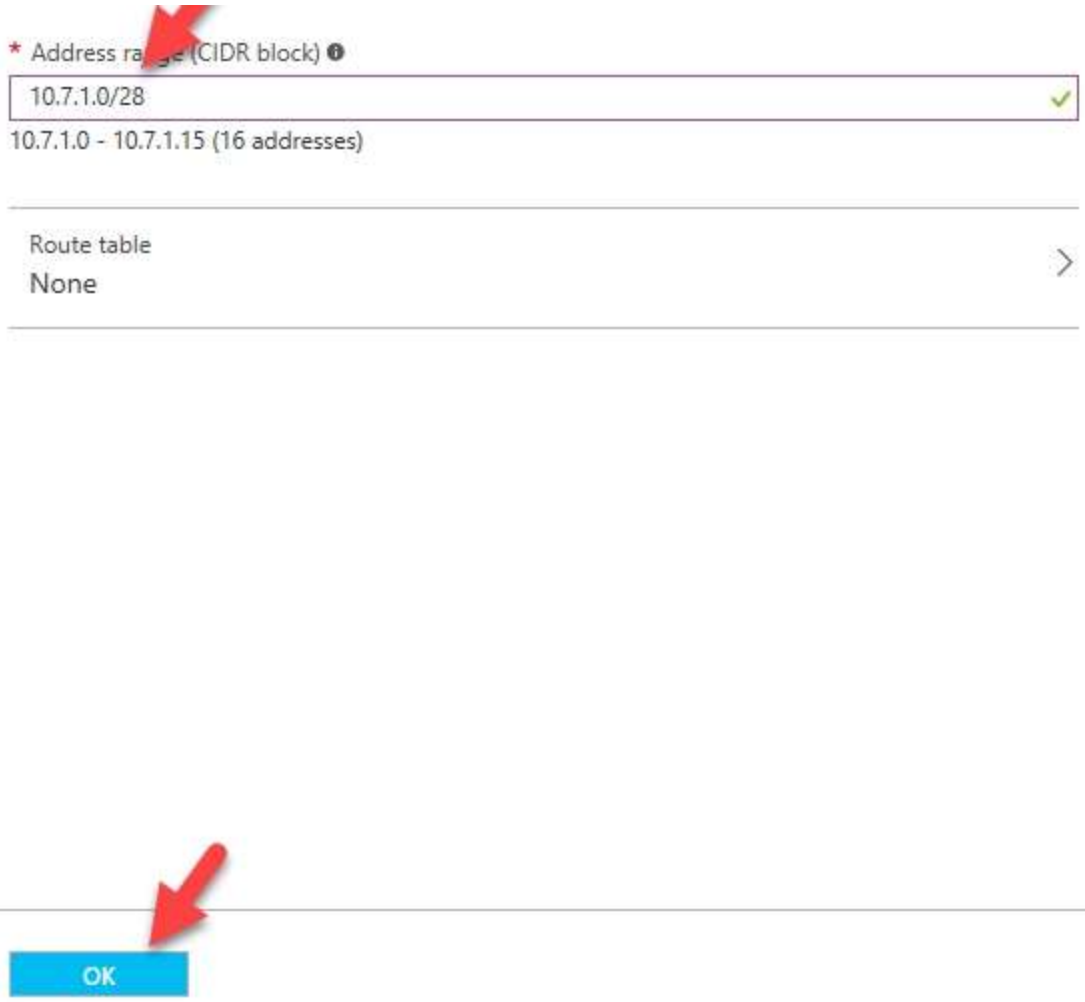
To start the lab -
You may start the lab by clicking the Next button.
You plan to connect a virtual network named VNET1017 to your on-premises network by using both an Azure ExpressRoute and a site-to-site VPN connection.
You need to prepare the Azure environment for the planned deployment. The solution must maximize the IP address space available to Azure virtual machines.
What should you do from the Azure portal before you create the ExpressRoute and the VPN gateway?

Hide Solution Discussion 13

Correct Answer: *See explanation below.*
We need to create a Gateway subnet
Step 1:
Go to More Services > Virtual Networks
Step 2:
Then click on the VNET1017, and click on subnets. Then click on gateway subnet.
Step 3:
In the next window define the subnet for the gateway and click OK



It is recommended to use /28 or /27 for gateway subnet.
As we want to maximize the IP address space we should use /27.
References:
https://blogs.technet.microsoft.com/canitpro/2017/06/28/step-by-step-configuring-a-site-to-site-vpn-gateway-between-azure-and-on-premise/

Question #66*Topic 5*
HOTSPOT -
You have an Azure subscription named Subscription1 that contains a virtual network named VNet1. You add the users in the following table.

User	Role
User1	Owner
User2	Security Admin
User3	Network Contributor

Which user can perform each configuration? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Add a subnet to VNet1:	User1 only User3 only User1 and User3 only User2 and User3 only User1, User2, and User3
Assign a user the Reader role to VNet1:	User1 only User2 only User3 only User1 and User2 only User2 and User3 only User1, User2, and User3

Hide Solution | Discussion 14

Correct Answer:

Answer Area

Add a subnet to VNet1:	**User1 only** User3 only User1 and User3 only User2 and User3 only User1, User2, and User3
Assign a user the Reader role to VNet1:	User1 only User2 only User3 only User1 and User2 only User2 and User3 only **User1, User2, and User3**

Box 1: User1 only.

User1: The Owner Role lets you manage everything, including access to resources.
Not User3: The Network Contributor role lets you manage networks, but not access to them.

Box 2: User1, User2, and Users3 -
The Owner Role lets you manage everything, including access to resources.
The Security Admin role: In Security Center only: Can view security policies, view security states, edit security policies, view alerts and recommendations, dismiss alerts and recommendations.
Network Contributor role lets you manage networks, but not access to them. This includes Read roles and role assignments
Reference:
https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles

Question #67*Topic 5*
You have an Azure subscription that contains three virtual networks named VNet1, VNet2, and VNet3. VNet2 contains a virtual appliance named VM2 that operates as a router.
You are configuring the virtual networks in a hub and spoke topology that uses VNet2 as the hub network.
You plan to configure peering between VNet1 and VNet2 and between VNet2 and VNet3.
You need to provide connectivity between VNet1 and VNet3 through VNet2.
Which two configurations should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. On the peering connections, allow forwarded traffic
- B. Create a route filter
- C. On the peering connections, allow gateway transit
- D. Create route tables and assign the table to subnets
- E. On the peering connections, use remote gateways

Hide Solution Discussion 26
Correct Answer: *CE*
Allow gateway transit: Check this box if you have a virtual network gateway attached to this virtual network and want to allow traffic from the peered virtual network to flow through the gateway.
The peered virtual network must have the Use remote gateways checkbox checked when setting up the peering from the other virtual network to this virtual network.
Note: VNet2 is the hub network.
References:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering#requirements-and-constraints

Question #68*Topic 5*
DRAG DROP -
You have an Azure subscription that contains two virtual networks named VNet1 and VNet2. Virtual machines connect to the virtual networks.
The virtual networks have the address spaces and the subnets configured as shown in the

following table.

Virtual network	Address space	Subnet	Peering
VNet1	10.1.0.0/16	10.1.0.0/24 10.1.1.0/26	VNet2
VNet2	10.2.0.0/16	10.2.0.0/24	VNet1

You need to add the address space of 10.33.0.0/16 to VNet1. The solution must ensure that the hosts on VNet1 and VNet2 can communicate.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.
Select and Place:

Actions

- Remove peering between VNet1 and VNet2.
- Recreate peering between VNet1 and VNet2.
- On the peering connection in VNet1, allow gateway transit.
- Add the 10.33.0.0/16 address space to VNet1.
- On the peering conenction in VNet2, allow gateway transit.
- Create a new virtual network named VNet1.
- Remove VNet1.

Answer Area

Hide Solution Discussion 3

Correct Answer:

Actions	Answer Area
Remove peering between VNet1 and VNet2.	Remove peering between VNet1 and VNet2.
Recreate peering between VNet1 and VNet2.	Add the 10.33.0.0/16 address space to VNet1.
On the peering connection in VNet1, allow gateway transit.	Recreate peering between VNet1 and VNet2.
Add the 10.33.0.0/16 address space to VNet1.	
On the peering conenction in VNet2, allow gateway transit.	
Create a new virtual network named VNet1.	
Remove VNet1.	

Step 1: Remove peering between Vnet1 and VNet2.
You can't add address ranges to, or delete address ranges from a virtual network's address space once a virtual network is peered with another virtual network.
To add or remove address ranges, delete the peering, add or remove the address ranges, then re-create the peering.
Step 2: Add the 10.44.0.0/16 address space to VNet1.
Step 3: Recreate peering between VNet1 and VNet2
References:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering

Question #69*Topic 5*
HOTSPOT -
You are designing a virtual network to support a web application. The web application uses Blob storage to store large images. The web application will be deployed to an Azure App Service Web App.
You have the following requirements:
☞ Secure all communications by using Secured Socket layer (SSL)
☞ SSL encryption and decryption must be processed efficiently to support high traffic load on the web application
☞ Protect the web application from web vulnerabilities and attacks without modification to backend code
☞ Optimize web application responsiveness and reliability by routing HTTP request and responses to the endpoint with the lowest network latency for the client.
You need to configure the Azure components to meet the requirements.
What should you do? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Requirement	Component
SSL Encrypt / Decrypt	Azure Application Gateway Azure Monitor Azure Security Center Azure Network Watcher
Protect from web vulnerabilities	Azure Application Gateway Azure Monitor Azure Security Center Azure Traffic Manager
Optimize responsiveness and reliability	Azure Application Gateway Azure Monitor Azure Traffic Manager Azure Network Watcher

Hide Solution | Discussion 12

Correct Answer:

Answer Area

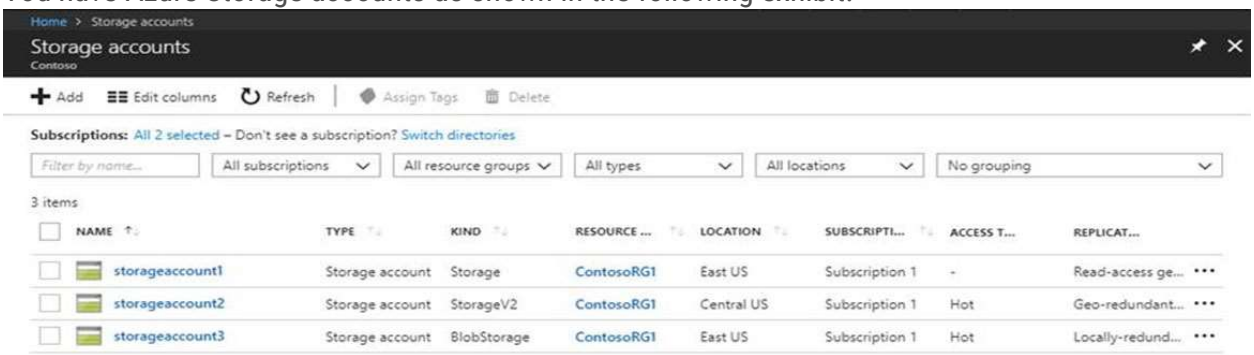
Requirement	Component
SSL Encrypt / Decrypt	Azure Application Gateway
Protect from web vulnerabilities	Azure Security Center
Optimize responsiveness and reliability	Azure Traffic Manager

Box 1: Azure application Gateway
Azure Application Gateway supports end-to-end encryption of traffic. Application Gateway terminates the SSL connection at the application gateway. The gateway then applies the routing rules to the traffic, re-encrypts the packet, and forwards the packet to the appropriate back-end server based on the routing rules defined.
Any response from the web server goes through the same process back to the end user.

Box 2: Azure Security Center -
Azure Security Center is a unified infrastructure security management system that strengthens the security posture of your data centers, and provides advanced threat protection across your hybrid workloads in the cloud - whether they're in Azure or not - as well as on premises.

Box 3: Azure Traffic Manager -
Azure Traffic Manager is a DNS-based traffic load balancer that enables you to distribute traffic optimally to services across global Azure regions, while providing high availability and responsiveness.
References:
https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-end-to-end-ssl-powershell https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview
https://docs.microsoft.com/en-us/azure/security-center/security-center-intro

Question #70*Topic 5*
HOTSPOT -
You have Azure Storage accounts as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

You can use **[answer choice]** for Azure Table Storage.

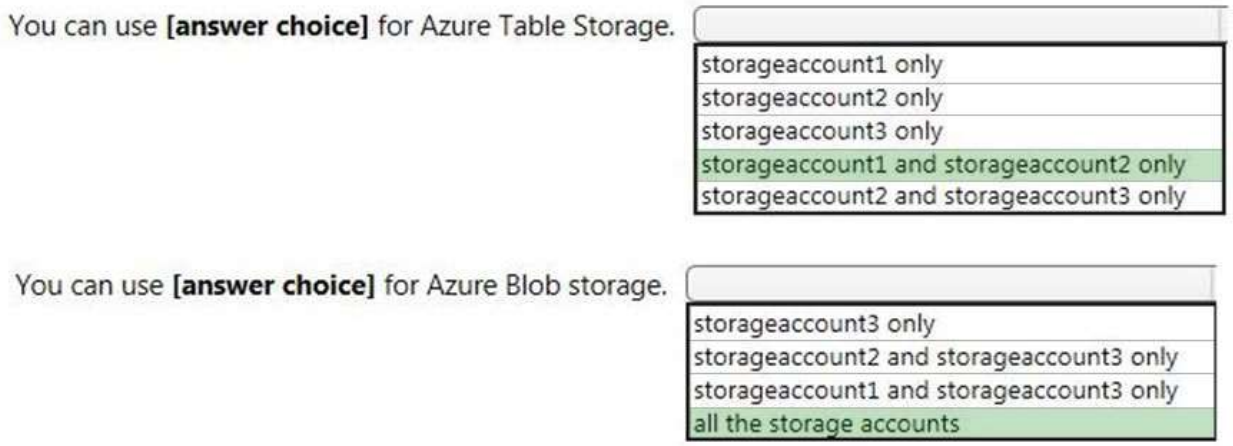
- storageaccount1 only
- storageaccount2 only
- storageaccount3 only
- storageaccount1 and storageaccount2 only
- storageaccount2 and storageaccount3 only

You can use **[answer choice]** for Azure Blob storage.

- storageaccount3 only
- storageaccount2 and storageaccount3 only
- storageaccount1 and storageaccount3 only
- all the storage accounts

Hide Solution Discussion 3
Correct Answer:

Answer Area



Note: The three different storage account options are: General-purpose v2 (GPv2) accounts, General-purpose v1 (GPv1) accounts, and Blob storage accounts.

☞ General-purpose v2 (GPv2) accounts are storage accounts that support all of the latest features for blobs, files, queues, and tables.

☞ Blob storage accounts support all the same block blob features as GPv2, but are limited to supporting only block blobs.

☞ General-purpose v1 (GPv1) accounts provide access to all Azure Storage services, but may not have the latest features or the lowest per gigabyte pricing.

References:
https://docs.microsoft.com/en-us/azure/storage/common/storage-account-options

Question #71*Topic 5*

Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are planning to create a virtual network that has a scale set that contains six virtual machines (VMs).

A monitoring solution on a different network will need access to the VMs inside the scale set.

You need to define public access to the VMs.

Solution: Deploy a standalone VM that has a public IP address to the virtual network.

Does the solution meet the goal?

- A. Yes
- B. No

Hide Solution | Discussion 13

Correct Answer: *A*

Question #72*Topic 5*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You are planning to create a virtual network that has a scale set that contains six virtual machines (VMs).
A monitoring solution on a different network will need access to the VMs inside the scale set.
You need to define public access to the VMs.
Solution: Implement an Azure Load Balancer.
Does the solution meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 11
Correct Answer: *B*

Question #73*Topic 5*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You are planning to create a virtual network that has a scale set that contains six virtual machines (VMs).
A monitoring solution on a different network will need access to the VMs inside the scale set.
You need to define public access to the VMs.
Solution: Design a scale set to automatically assign public IP addresses to all VMs.
Does the solution meet the goal?

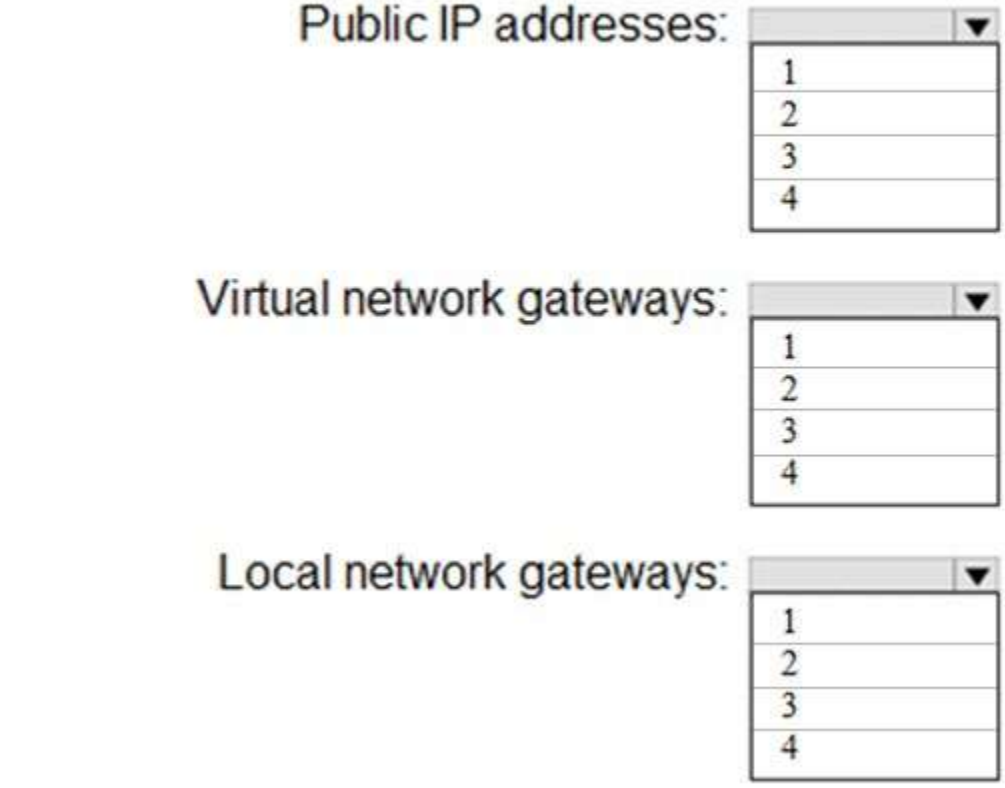
- A. Yes
- B. No

Hide Solution Discussion 10
Correct Answer: *B*

Question #74*Topic 5*

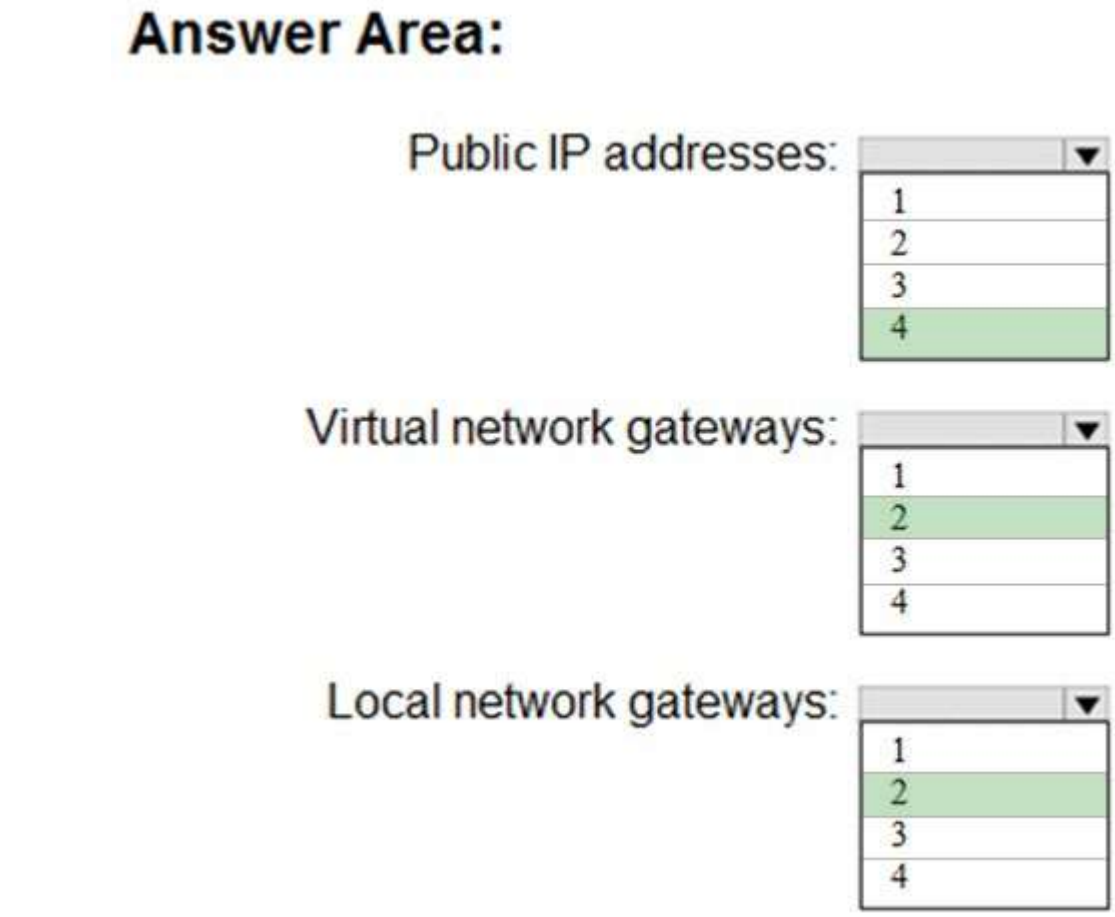
HOTSPOT -
You have an on-premises data center and an Azure subscription. The data center contains two VPN devices. The subscription contains an Azure virtual network named VNet1. VNet1 contains a gateway subnet.
You need to create a site-to-site VPN. The solution must ensure that if a single instance of an Azure VPN gateway fails, or a single on-premises VPN device fails, the failure will not cause an interruption that is longer than two minutes.
What is the minimum number of public IP addresses, virtual network gateways, and local network gateways required in Azure? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area:



Hide Solution Discussion 31

Correct

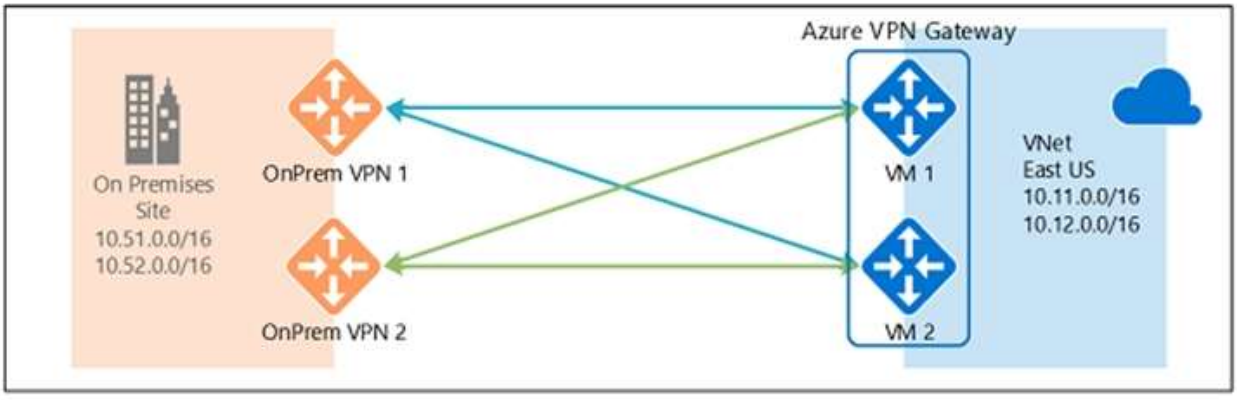


Answer:

Box 1: 4 -

Two public IP addresses in the on-premises data center, and two public IP addresses in the VNET.

The most reliable option is to combine the active-active gateways on both your network and Azure, as shown in the diagram below.



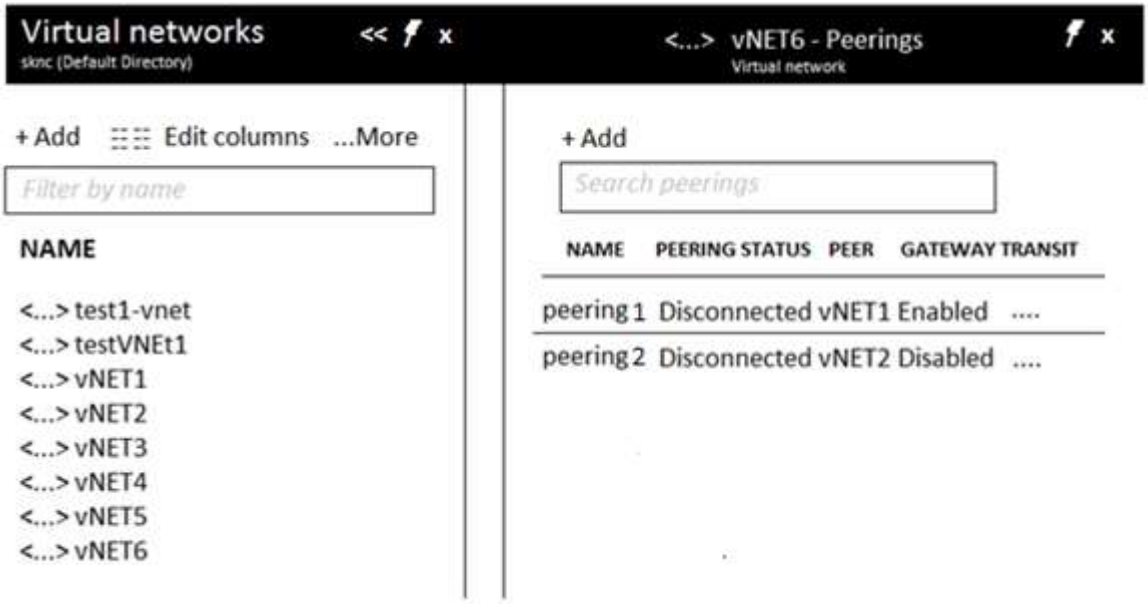
Box 2: 2 -

Every Azure VPN gateway consists of two instances in an active-standby configuration. For any

planned maintenance or unplanned disruption that happens to the active instance, the standby instance would take over (failover) automatically, and resume the S2S VPN or VNet-to-VNet connections.

Box 3: 2 -
Dual-redundancy: active-active VPN gateways for both Azure and on-premises networks
References:
https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-highlyavailable

Question #75*Topic 5*
HOTSPOT -
You have peering configured as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Hosts on vNET6 can communicate with hosts on **[answer choice].**	vNET6 only vNET6 and vNET 1 only vNET6, vNET1, and vNET2 only all the virtual networks in the subscription
To change the status of the peering connection to vNET1 to **Connected**, you must first **[answer choice].**	add a service endpoint add a subnet delete peering1 modify the address space

Hide Solution | Discussion 11

Correct Answer:

Answer Area

Hosts on vNET6 can communicate with hosts on **[answer choice].**	vNET6 only vNET6 and vNET 1 only vNET6, vNET1, and vNET2 only all the virtual networks in the subscription
To change the status of the peering connection to vNET1 to **Connected**, you must first **[answer choice].**	add a service endpoint add a subnet delete peering1 modify the address space

Box 1: vNET6 only -

Box 2: Modify the address space -
The virtual networks you peer must have non-overlapping IP address spaces.
References:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering#requirements-and-constraints

Question #76*Topic 5*
You have an Azure Kubernetes Service (AKS) cluster named Clus1 in a resource group named RG1.
An administrator plans to manage Clus1 from an Azure AD-joined device.
You need to ensure that the administrator can deploy the YAML application manifest file for a container application.

You install the Azure CLI on the device.
Which command should you run next?

- A. kubectl get nodes
- B. az aks install-cli
- C. kubectl apply ג€"f appl.yaml
- D. az aks get-credentials --resource-group RG1 --name Clus1

Hide Solution Discussion 24

Correct Answer: *C*
kubectl apply ג€"f appl.yaml applies a configuration change to a resource from a file or stdin.
Incorrect Answers:
A: kubectl get nodes gets a list of all nodes.
B: az aks install-cli download and install the Kubernetes command-line tool.
D: az aks get-credentials gets access credentials for a managed Kubernetes cluster
References:
https://kubernetes.io/docs/reference/kubectl/overview/
https://docs.microsoft.com/en-us/cli/azure/aks

Question #77*Topic 5*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You are planning to create a virtual network that has a scale set that contains six virtual machines (VMs).
A monitoring solution on a different network will need access to the VMs inside the scale set.
You need to define public access to the VMs.
Solution: Use Remote Desktop Protocol (RDP) to connect to the VM in the scale set.
Does the solution meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 8

Correct Answer: *A*
Instead, deploy a standalone VM that has a public IP address to the virtual network.

Question #78*Topic 5*

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Address space	Location	Number of Azure virtual machines
VNET1	10.1.0.0/16	West US	100
VNET2	172.16.0.0/16	East US	400

You need to recommend a connectivity solution that will enable the virtual machines on VNET1 and VNET2 to communicate through the Microsoft backbone infrastructure.
What should you include in the recommendation?

- A. Azure ExpressRoute
- B. peering
- C. a site-to-site VPN
- D. a point-to-site VPN

Hide Solution Discussion 5

Correct Answer: *B*
Virtual network peering enables you to seamlessly connect Azure virtual networks. Once peered, the virtual networks appear as one, for connectivity purposes.
The traffic between virtual machines in the peered virtual networks is routed through the Microsoft backbone infrastructure, much like traffic is routed between virtual machines in the same virtual network, through private IP addresses only. Azure supports:
⇨ VNet peering - connecting VNets within the same Azure region
⇨ Global VNet peering - connecting VNets across Azure regions
References:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview

Question #79*Topic 5*
You create an Azure virtual machine named VM1 in a resource group named RG1.
You discover that VM1 performs slower than expected.
You need to capture a network trace on VM1.
What should you do?

- A. From Diagnostic settings for VM1, configure the performance counters to include network counters.
- B. From the VM1 blade, configure Connection troubleshoot.
- C. From the VM1 blade, install performance diagnostics and run advanced performance analysis
- D. From Diagnostic settings for VM1, configure the log level of the diagnostic agent.

Hide Solution Discussion 8

Correct Answer: *C*
The performance diagnostics tool helps you troubleshoot performance issues that can affect a

Windows or Linux virtual machine (VM). Supported troubleshooting scenarios include quick checks on known issues and best practices, and complex problems that involve slow VM performance or high usage of CPU, disk space, or memory.
Advanced performance analysis, included in the performance diagnostics tool, includes all checks in the performance analysis, and collects one or more of the traces, as listed in the following sections. Use this scenario to troubleshoot complex issues that require additional traces. Running this scenario for longer periods will increase the overall size of diagnostics output, depending on the size of the VM and the trace options that are selected.
References:
https://docs.microsoft.com/en-us/azure/virtual-machines/troubleshooting/performance-diagnostics

Question #80*Topic 5*
You have an Azure subscription that contains the resource groups shown in the following table.

Name	Region
RG1	East US
RG2	West US

The subscription contains the storage accounts shown in the following table.

Name	Resource group	Location	Account kind
Storage1	RG1	West US	BlobStorage
Storage2	RG2	West US	Storage (general purpose v1)
Storage3	RG1	East US	Storage V2 (general purpose v2)

You create a Recovery Services vault named Vault1 in RG1 in the West US location.
You need to identify which storage accounts can be used to archive the diagnostics logs of Vault1.
Which storage accounts should you identify?

- A. Storage1 only
- B. Storage2 only
- C. Storage3 only
- D. Storage1 or Storage2 only
- E. Storage1 or Storage3 only

Hide Solution Discussion 26
Correct Answer: *DE*
The same region or the same resource group.

Question #81*Topic 5*
HOTSPOT -
You have an Azure subscription.
You plan to deploy two Azure web apps that have the requirements shown in the following table.

Name	Requirement
App1	• Accessible by using a URL of https://app1.contoso.com • Scalable to two instances during busy periods • Supports two deployment slots
App2	• Accessible by using a URL of https://app2.contoso.com • Scalable to 15 instances during busy periods • Supports three deployment slots

You need to select the App Service plans for the web apps. The solution must minimize costs.
Which App Service plan should you select for each web app? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

App1:
- B1 Basic
- D1 Shared
- P1v2 PremiumV2
- S1 Standard

App2:
- B1 Basic
- D1 Shared
- P1v2 PremiumV2
- S1 Standard

Hide Solution | Discussion 8

Answer Area

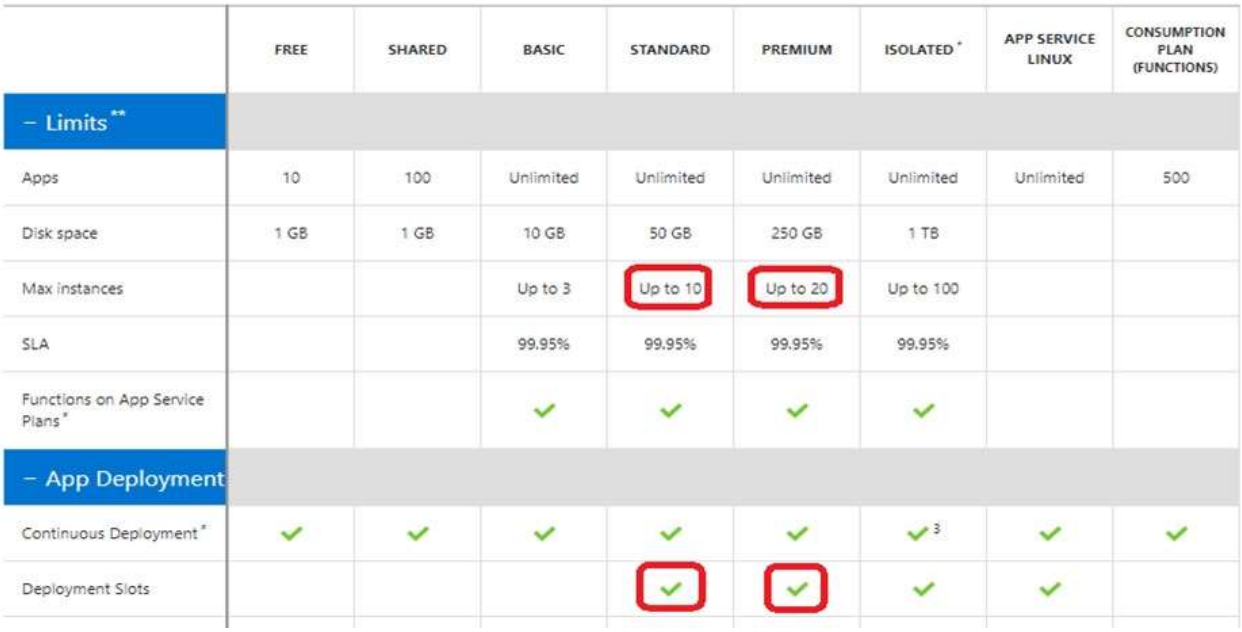
App1:

- B1 Basic
- D1 Shared
- P1v2 PremiumV2
- S1 Standard

App2:

- B1 Basic
- D1 Shared
- P1v2 PremiumV2
- S1 Standard

Correct Answer:



	FREE	SHARED	BASIC	STANDARD	PREMIUM	ISOLATED*	APP SERVICE LINUX	CONSUMPTION PLAN (FUNCTIONS)
– Limits**								
Apps	10	100	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	500
Disk space	1 GB	1 GB	10 GB	50 GB	250 GB	1 TB		
Max instances			Up to 3	Up to 10	Up to 20	Up to 100		
SLA			99.95%	99.95%	99.95%	99.95%		
Functions on App Service Plans*			✓	✓	✓	✓		
– App Deployment								
Continuous Deployment*	✓	✓	✓	✓	✓	✓3	✓	✓
Deployment Slots				✓	✓	✓	✓	

Reference:
https://azure.microsoft.com/en-us/pricing/details/app-service/plans/

Question #82*Topic 5*
You have an Azure subscription.
You create a custom role in Azure by using the following Azure Resource Manager template.

```
{
  "Name": "Role1",
  "Id": "88888888-8888-8888-8888-888888888888",
  "IsCustom" : true,
  "Description" : "Role1 Description",
  "Actions" : [
     "Microsoft.Storage/*/read",
     "Microsoft.Network/*/read",
     "Microsoft.Compute/*/read",
     "Microsoft.Compute/virtualMachines/start/action",
     "Microsoft.Compute/virtualMachines/restart/action",
     "Microsoft.Authorization/*/read",
     "Microsoft.ResourceHealth/availabilityStatuses/read",
     "Microsoft.Resources/subscriptions/resourceGroups/read",
     "Microsoft.Insights/alertRules/*",
     "Microsoft.Insights/diagnosticSettings/*",
     "Microsoft.Support/*"
 ],
  "NotActions": [],
  "DataActions": [],
  "NotDataActions" : [],
  "AssignableScopes" : [
     "/subscriptions/981dd4bc-8cf4-46fc-9513-0c599648b44b
 ]
}
```

You assign the role to a user named User1.
Which action can User1 perform?

- A. Delete virtual machines.
- B. Create resource groups.
- C. Create virtual machines.
- D. Create support requests.

Hide Solution | Discussion 4

Correct Answer: *D*
The "Microsoft.Support/*" operation will allow the user to create support tickets.
References:
https://docs.microsoft.com/en-us/azure/role-based-access-control/tutorial-custom-role-powershell

Question #83*Topic 5*
A company plans to use third-party application software to perform complex data analysis processes. The software will use up to 500 identical virtual machines

(VMs) based on an Azure Marketplace VM image.
You need to design the infrastructure for the third-party application server. The solution must meet the following requirements:
☞ The number of VMs that are running at any given point in time must change when the user workload changes.
☞ When a new version of the application is available in Azure Marketplace it must be deployed without causing application downtime.
☞ Use VM scale sets.
☞ Minimize the need for ongoing maintenance.
Which two technologies should you recommend? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. single storage account
- B. autoscale
- C. single placement group
- D. managed disks

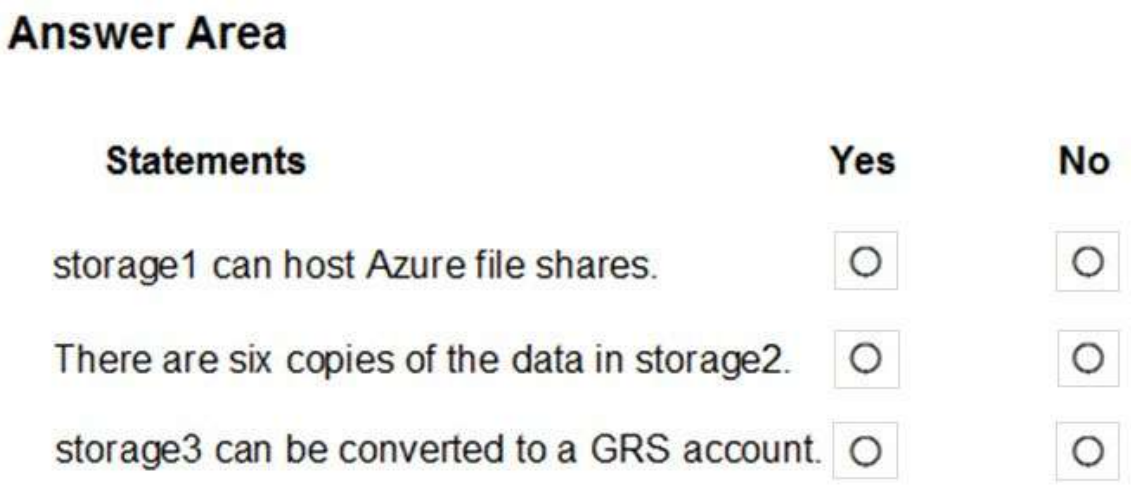
Hide Solution Discussion 6
Correct Answer: *BD*

Question #84*Topic 5*
HOTSPOT -
You have an Azure subscription that contains the storage account shown in the following table.

Name	Kind	Performance tier	Replication	Location
storage1	StorageV2	Premium	Locally-redundant storage (LRS)	East US
storage2	Storage	Standard	Geo-redundant storage (GRS)	UK West
storage3	BlobStorage	Standard	Locally-redundant storage (LRS)	North Europe

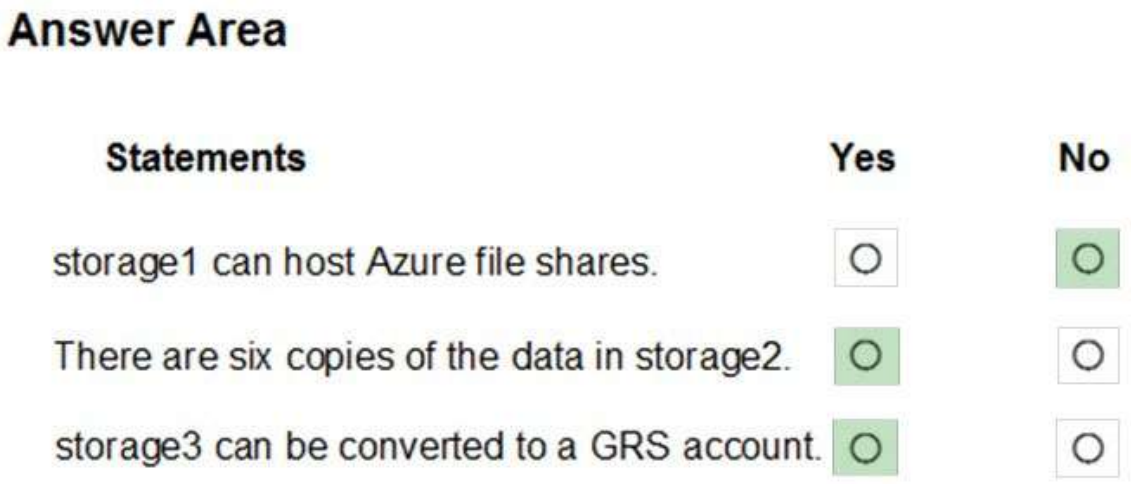
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:



Hide Solution | Discussion 39

Correct Answer:



Box 1: No -
Azure Files supports two storage tiers: premium and standard. Standard file shares are created in general purpose (GPv1 or GPv2) storage accounts and premium file shares are created in FileStorage storage accounts.
You cannot create Azure file shares from Blob storage accounts or premium general purpose (GPv1 or GPv2) storage accounts. Standard Azure file shares must created in standard general purpose accounts only and premium Azure file shares must be created in FileStorage storage accounts only. Premium general purpose (GPv1 and GPv2) storage accounts are for premium page blobs only.

Box 2: Yes -
Geo-redundant storage (GRS) brings additional redundancy to the data storage over both LRS or ZRS. Along with the three copies of your data stored within a single region, a further three copies are stored in the twinned Azure region. So using GRS means you get all the features of the LRS storage within your primary zone, but you also get a second LRS data storage in a neighbouring Azure region. This data is updated asynchronously, so there is a small lag between the 2 data sets, but for most cases this is acceptable.

Box 3: Yes -
Blob Storage Standard can be used both LRS and GRS.
References:
https://docs.microsoft.com/en-us/azure/storage/files/storage-files-faq
https://www.skylinesacademy.com/blog/2019/7/31/azure-storage-replication
https://docs.microsoft.com/en-us/azure/storage/common/storage-introduction

Question #85*Topic 5*
HOTSPOT -
You create and save an Azure Resource Manager template named Template1 that includes the following four sections.
Section1.

```
{
"$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
"contentVersion": "1.0.0.0",
"parameters" "{
   "windowsOSVersion": {
     "defaultValue": "2019-Datacenter",
     "allowedValues": [
          "2012-Datacenter",
          "2012-R2-Datacenter",
          "2016-Datacenter",
          "2019-Datacenter"
     ],
     }
},
```

Section2.

```
"variables": {
     "windowsOSVersion": "2012-Datacenter",
```

Section3.

```
},
"resources": [
   {
   "type": "Microsoft.Compute/virtualMachines",
```

Section4.

```
"storageProfile": {
    "imageReference": {
        "publisher": "MicrosoftWindowsServer",
        "offer": "WindowsServer",
        "sku": "2012-R2-Datacenter",
        "version": "latest"
        },
```

You deploy Template1.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
Windows Server 2012 R2 Datacenter will be deployed to the Azure virtual machine.	○	○
A custom image of Windows Server will be deployed.	○	○
During the deployment of Template1, an administrator will be prompted to select a version of Windows Server.	○	○

Hide Solution | Discussion 10

Correct Answer:

Answer Area

Statements	Yes	No
Windows Server 2012 R2 Datacenter will be deployed to the Azure virtual machine.	○	○
A custom image of Windows Server will be deployed.	○	○
During the deployment of Template1, an administrator will be prompted to select a version of Windows Server.	○	○

Question #86*Topic 5*

You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Account kind	Size
contosostorage1	General Purpose v1	15 TB
contosostorage2	General Purpose v1	1 TB
contosostorage3	General Purpose v2	15 TB
contosostorage4	General Purpose v2	1 TB
contosostorage5	blobstorage	5 TB

All storage accounts contain blobs only.
You need to implement several lifecycle management rules for all storage accounts.
What should you do first?

- A. Upgrade contosostorage1 and contosostorage2 to General Purpose V2 accounts.
- B. Move 5 TB of blob data from contosostorage3 to contosostorage4.
- C. Move 5 TB of blob data from contosostorage1 to contosostorage2.
- D. Recreate contosostorage5 as a General Purpose V2 account.

Hide Solution Discussion 3

Correct Answer: *A*
Microsoft recommends that you use a general-purpose v2 storage account for most scenarios.
You can easily upgrade a general-purpose v1 or an Azure Blob storage account to a general-purpose v2 account with no downtime and without the need to copy data.
References:
https://docs.microsoft.com/en-us/azure/storage/common/storage-scalability-targets

Question #87*Topic 5*
HOTSPOT -
You have an Azure subscription that contains the resource groups shown in the following table.

Name	Region
RG1	East US
RG2	West US

RG1 contains the virtual machines shown in the following table.

Name	Region
VM1	West US
VM2	West US
VM3	West US
VM4	West US

RG2 contains the virtual machines shown in the following table.

Name	Region
VM5	East US 2
VM6	East US 2
VM7	West US
VM8	West US 2

All the virtual machines are configured to use premium disks and are accessible from the Internet.
VM1 and VM2 are in an availability set named AVSET1. VM3 and VM4 are in the same availability zone and are in an availability set named AVSET2. VM5 and
VM6 are in different availability zones.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
VM1 is eligible for a Service Level Agreement (SLA) of 99,95 percent.	○	○
VM3 is eligible for a Service Level Agreement (SLA) of 99,99 percent.	○	○
VM5 is eligible for a Service Level Agreement (SLA) of 99,99 percent.	○	○

Hide Solution | Discussion 25

Correct Answer:

Answer Area

Statements	Yes	No
VM1 is eligible for a Service Level Agreement (SLA) of 99,95 percent.	○	○
VM3 is eligible for a Service Level Agreement (SLA) of 99,99 percent.	○	○
VM5 is eligible for a Service Level Agreement (SLA) of 99,99 percent.	○	○

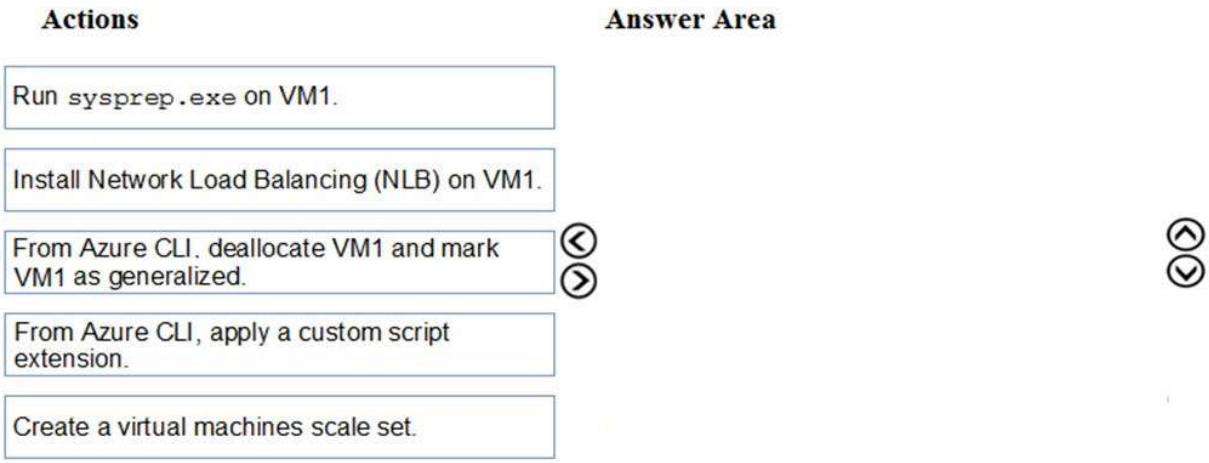
Box 1: Yes -
VM1 and VM2 are in an available set named AVSET1.
For all Virtual Machines that have two or more instances deployed in the same Availability Set, we

[Microsoft] guarantee you will have Virtual Machine Connectivity to at least one instance at least 99.95% of the time.

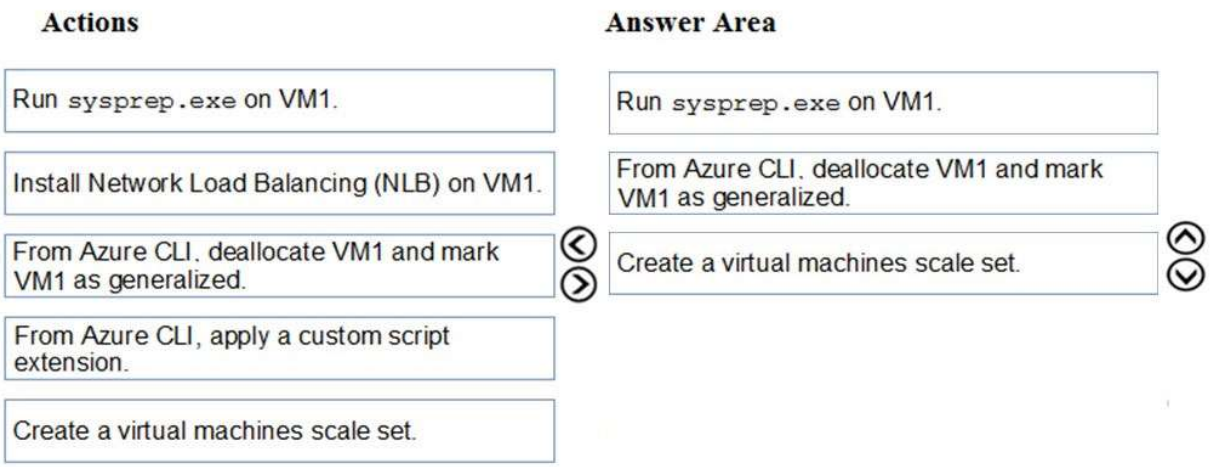
Box 2: No -
VM3 and VM4 are in the same availability zone and are in an availability set named AVSET2.

Box 3: Yes -
VM5 and VM6 are in different availability zones.
For all Virtual Machines that have two or more instances deployed across two or more Availability Zones in the same Azure region, we [Microsoft] guarantee you will have Virtual Machine Connectivity to at least one instance at least 99.99% of the time.
References:
https://azure.microsoft.com/en-us/support/legal/sla/virtual-machines/v1_8/

Question #88*Topic 5*
DRAG DROP -
You have an Azure virtual machine named VM1 that runs Windows Server 2016.
You install a line-to-business application on VM1.
You need to create an Azure virtual machine by using VM1 as a custom image.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.
Select and Place:



Hide Solution Discussion 13
Correct Answer:



Step 1: Run sysprep.exe on VM1.
If a template, or system image is used, System administrators must run the Sysprep tool to clear the SID information. The Sysprep tool is usually one of the last tasks performed by a system administrator when building a server image/template, that way each clone of the template will generalize a new unique SID for every server image copied from the template and will prepare the server for a first time boot.
The end result is a System template that functions as a new unique build every time it is deployed.
Step 2: From Azure CLI, deallocate VM1 and mark VM1 as generalized
To create an image, the VM needs to be deallocated. Deallocate the VM with Stop-AzVm. Then, set the state of the VM as generalized with Set-AzVm so that the
Azure platform knows the VM is ready for use a custom image
Step 3: Create a virtual machine scale set
Now create a scale set with New-AzVmss that uses the -ImageName parameter to define the custom VM image created in the previous step.
References:
https://thesolving.com/server-room/when-and-how-to-use-sysprep/
https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/tutorial-use-custom-image-powershell

Question #89*Topic 5*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Active Directory (Azure AD) tenant named contoso.com.
A user named Admin1 attempts to create an access review from the Azure Active Directory admin center and discovers that the Access reviews settings are unavailable. Admin1 discovers that all the other Identity Governance settings are available.
Admin1 is assigned the User administrator, Compliance administrator, and Security administrator roles.
You need to ensure that the Admin1 can create access reviews in contoso.com.

Solution: You consent to Azure AD Privileged Identity Management (PIM).
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 13

Correct Answer: *A*

PIM essentially helps you manage the who, what, when, where, and why for resources that you care about. Key features of PIM include:

☞ Conduct access reviews to ensure users still need roles

Note: Azure Active Directory (Azure AD) Privileged Identity Management (PIM) is a service that enables you to manage, control, and monitor access to important resources in your organization. This includes access to resources in Azure AD, Azure resources, and other Microsoft Online Services like Office 365 or Microsoft
Intune.

References:
https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure

Question #90*Topic 5*

Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Active Directory (Azure AD) tenant named contoso.com.
A user named Admin1 attempts to create an access review from the Azure Active Directory admin center and discovers that the Access reviews settings are unavailable. Admin1 discovers that all the other Identity Governance settings are available.
Admin1 is assigned the User administrator, Compliance administrator, and Security administrator roles.
You need to ensure that the Admin1 can create access reviews in contoso.com.
Solution: You assign the Global administrator role to Admin1.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 12

Correct Answer: *B*

Instead use Azure AD Privileged Identity Management.
Note: PIM essentially helps you manage the who, what, when, where, and why for resources that

you care about. Key features of PIM include:
☞ Conduct access reviews to ensure users still need roles
References:
https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure

Question #91*Topic 5*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Active Directory (Azure AD) tenant named contoso.com.
A user named Admin1 attempts to create an access review from the Azure Active Directory admin center and discovers that the Access reviews settings are unavailable. Admin1 discovers that all the other Identity Governance settings are available.
Admin1 is assigned the User administrator, Compliance administrator, and Security administrator roles.
You need to ensure that the Admin1 can create access reviews in contoso.com.
Solution: You purchase an Azure Directory Premium P2 license for contoso.com.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 24
Correct Answer: *B*
Instead use Azure AD Privileged Identity Management.
Note: PIM essentially helps you manage the who, what, when, where, and why for resources that you care about. Key features of PIM include:
☞ Conduct access reviews to ensure users still need roles
References:
https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure

Question #92*Topic 5*
You have a resource group named RG1 that contains the following:
A virtual network that contains two subnets named Subnet1 and Subnet2
An Azure Storage account named contososa1
An Azure firewall deployed to Subnet2
You need to ensure that contososa1 is accessible from Subnet1 over the Azure backbone network.
What should you do?

- A. Deploy an Azure firewall to Subnet1.

- B. Remove the Azure firewall.
- C. Implement a virtual network service endpoint.
- D. Create a stored access policy for contososa1.

Hide Solution Discussion 6

Correct Answer: *C*

Virtual Network (VNet) service endpoint provides secure and direct connectivity to Azure services over an optimized route over the Azure backbone network.

Virtual Network (VNet) service endpoints extend your virtual network private address space and the identity of your VNet to the Azure services, over a direct connection. Endpoints allow you to secure your critical Azure service resources to only your virtual networks. Traffic from your VNet to the Azure service always remains on the Microsoft Azure backbone network.

Reference:

https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-service-endpoints-overview

Question #93*Topic 5*

Your company has the groups shown in the following table.

Group	Number of members
Managers	10
Sales	100
Development	15

The company has an Azure subscription that contains an Azure Active Directory (Azure AD) tenant named contoso.com.

An administrator named Admin1 attempts to enable Enterprise State Roaming for all the users in the Managers group.

Admin1 reports that the options for Enterprise State Roaming are unavailable from Azure AD.

You verify that Admin1 is assigned the Global administrator role.

You need to ensure that Admin1 can enable Enterprise State Roaming.

What should you do?

- A. Enforce Azure Multi-Factor Authentication (MFA) for Admin1.
- B. Purchase an Azure AD Premium P1 license for each user in the Managers group.
- C. Assign an Azure AD Privileged Identity Management (PIM) role to Admin1.
- D. Purchase an Azure Rights Management (Azure RMS) license for each user in the Managers group.

Hide Solution Discussion 6

Correct Answer: *B*

Enterprise State Roaming is available to any organization with an Azure AD Premium or Enterprise Mobility + Security (EMS) license.

References:

https://docs.microsoft.com/bs-latn-ba/azure/active-directory/devices/enterprise-state-roaming-enable

Question #94*Topic 5*
HOTSPOT -
You play to deploy an Azure virtual machine named VM1 by using an Azure Resource Manager template.
You need to complete the template.
What should you include in the template? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

```
{
     "type": "Microsoft.Compute/virtualMachines",
     "apiVersion": "2018-10-01",
     "name": "VM1",
     "location": "[parameters('location')]",
     "dependsOn": [
          "[resourceId('Microsoft.Storage/storageAccounts/', variables ('Name3'))]",
          "[resourceId(                                      variables('Name4'))]"
],
```

- 'Microsoft.Network/publicIPAddresses/'
- 'Microsoft.Network/virtualNetworks/'
- 'Microsoft.Network/networkInterfaces/'
- 'Microsoft.Network/virtualNetworks/subnets'
- 'Microsoft.Storage/storageAccounts/'

```
{
     "type": "Microsoft.Network/networkInterfaces",
     "apiVersion": "2018-11-01",
     "name": "NIC1",
     "location": "[parameters('location')]",
     "dependsOn": [
          "[resourceId('Microsoft.Network/publicIPAddresses/', variables ('Name1'))]",
          "[resourceId(                                        variables('Name2'))]"
],
```

- 'Microsoft.Network/publicIPAddresses/'
- 'Microsoft.Network/virtualNetworks/'
- 'Microsoft.Network/networkInterfaces/'
- 'Microsoft.Network/virtualNetworks/subnets'
- 'Microsoft.Storage/storageAccounts/'

Hide Solution | Discussion 8

Correct Answer:

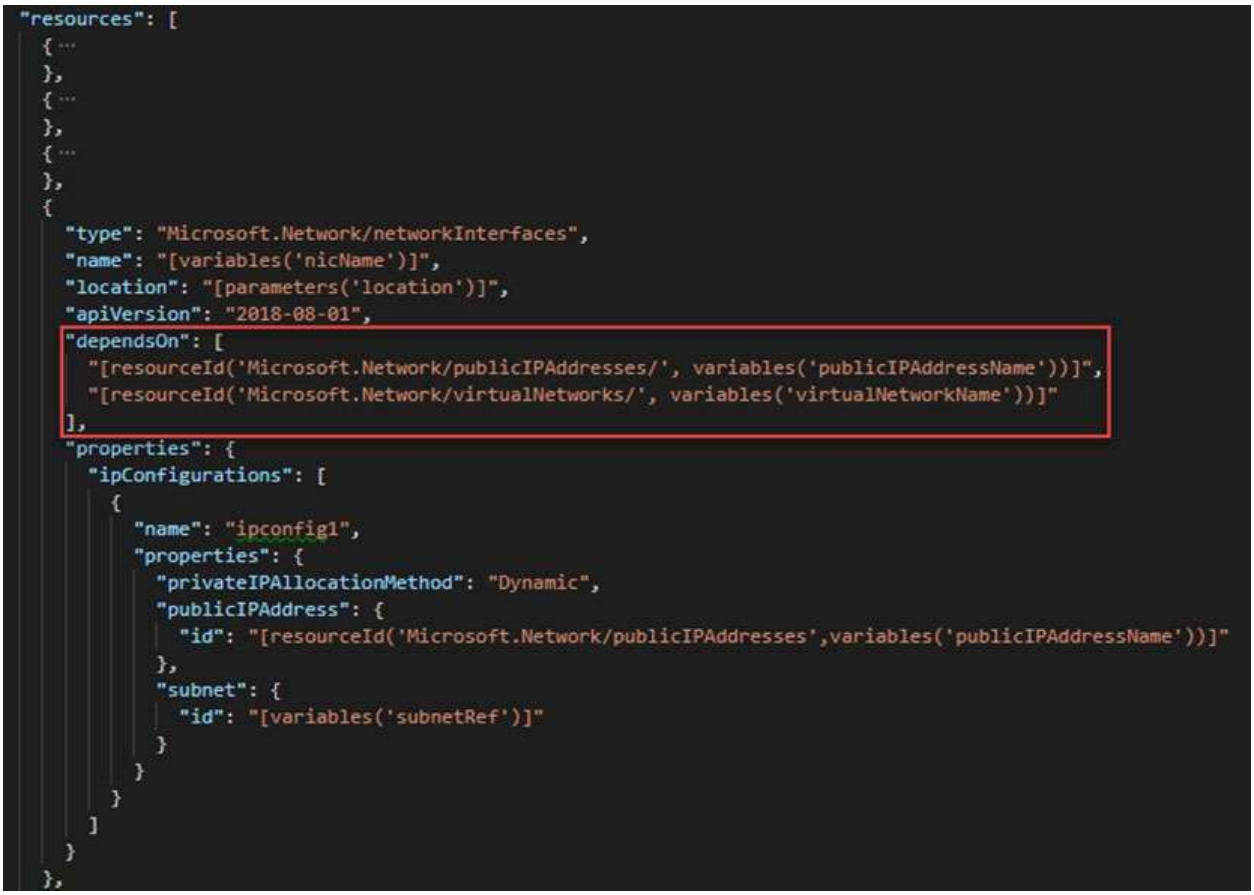
Answer Area

```
{
     "type": "Microsoft.Compute/virtualMachines",
     "apiVersion": "2018-10-01",
     "name": "VM1",
     "location": "[parameters('location')]",
     "dependsOn": [
          "[resourceId('Microsoft.Storage/storageAccounts/', variables ('Name3'))]",
          "[resourceId(                                      variables('Name4'))]"
],
{
     "type": "Microsoft.Network/networkInterfaces",
     "apiVersion": "2018-11-01",
     "name": "NIC1",
     "location": "[parameters('location')]",
     "dependsOn": [
          "[resourceId('Microsoft.Network/publicIPAddresses/', variables ('Name1'))]",
          "[resourceId(                                        variables('Name2'))]"
],
```

- 'Microsoft.Network/publicIPAddresses/'
- 'Microsoft.Network/virtualNetworks/'
- 'Microsoft.Network/networkInterfaces/' ✓
- 'Microsoft.Network/virtualNetworks/subnets'
- 'Microsoft.Storage/storageAccounts/'

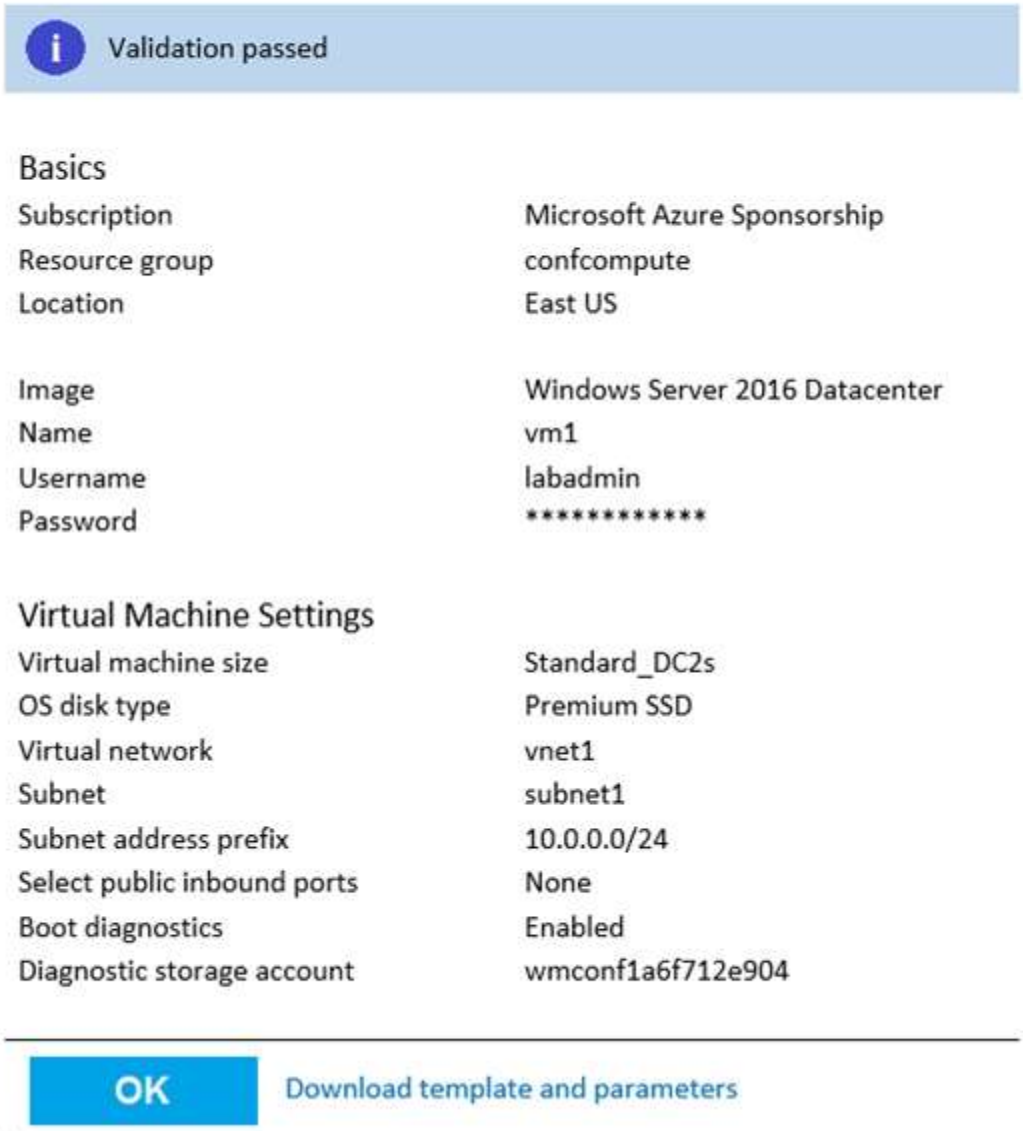
- 'Microsoft.Network/publicIPAddresses/'
- 'Microsoft.Network/virtualNetworks/' ✓
- 'Microsoft.Network/networkInterfaces/'
- 'Microsoft.Network/virtualNetworks/subnets'
- 'Microsoft.Storage/storageAccounts/'

Within your template, the dependsOn element enables you to define one resource as a dependent on one or more resources. Its value can be a comma- separated list of resource names.
Box 1: 'Microsoft.Network/networkInterfaces'
This resource is a virtual machine. It depends on two other resources:
Microsoft.Storage/storageAccounts
Microsoft.Network/networkInterfaces
Box 2: 'Microsoft.Network/virtualNetworks/'
The dependsOn element enables you to define one resource as a dependent on one or more resources. The resource depends on two other resources:
Microsoft.Network/publicIPAddresses
Microsoft.Network/virtualNetworks



References:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-tutorial-create-templates-with-dependent-resources

Question #95*Topic 5*
HOTSPOT -
You plan to create a virtual machine as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The performance of the operating system disk **[answer choice]**.

- will decrease over time
- will increase over time
- is guaranteed to remain the same

Vm1 will use **[answer choice]** for data protection.

- dm-crypt
- secure enclaves
- secure shell (SSH)

Hide Solution | Discussion 10

Correct Answer:

Answer Area

The performance of the operating system disk **[answer choice]**.

- will decrease over time
- will increase over time
- **is guaranteed to remain the same**

Vm1 will use **[answer choice]** for data protection.

- dm-crypt
- **secure enclaves**
- secure shell (SSH)

Box 1: is guaranteed to remain the same

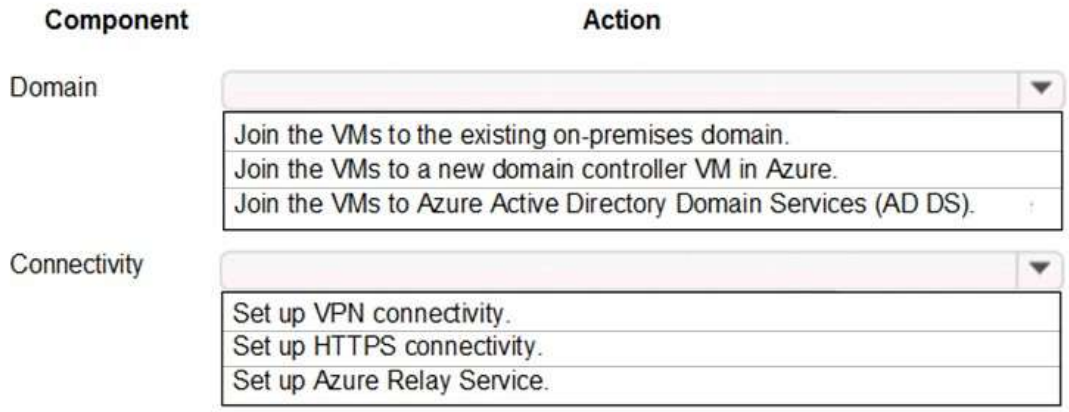
OS disk type: Premium SSD -
Premium SSD Managed Disks are high performance Solid State Drive (SSD) based Storage designed to support I/O intensive workloads with significantly high throughput and low latency. With Premium SSD Managed Disks, you can provision a persistent disk and configure its size and performance characteristics.

Box 2: secure enclaves -
Virtual machine size: Standard_DC2s

DC-series virtual machines are a new family of VMs to protect the confidentiality and integrity of your data and code while it's processed in Azure through the use of secure enclaves.
Incorrect:
Not dm-crypt: Azure Disk Encryption helps protect and safeguard your data to meet your organizational security and compliance commitments. It uses the
BitLocker feature of Windows and the DM-Crypt feature of Linux to provide volume encryption for the OS and data disks of Azure virtual machines (VMs).
References:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/disks-types
https://azure.microsoft.com/en-us/pricing/details/virtual-machines/series/

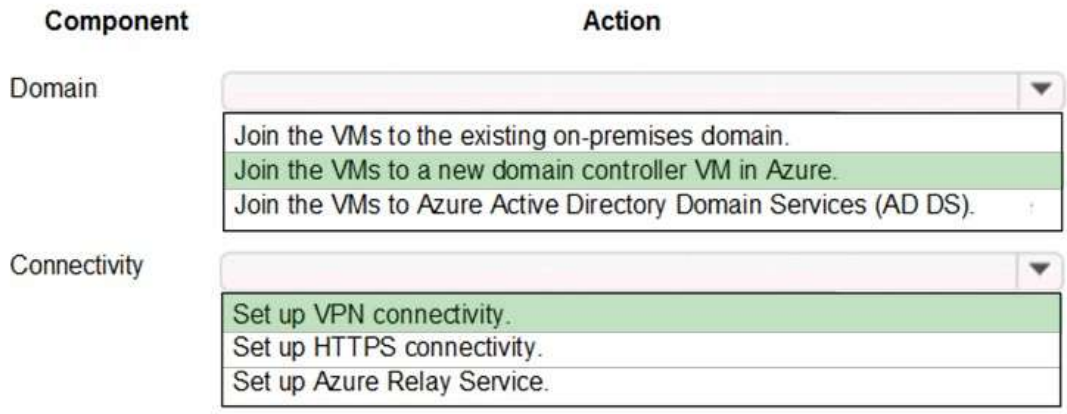
Question #96*Topic 5*
HOTSPOT -
A company runs multiple Windows virtual machines (VMs) in Azure.
The IT operations department wants to apply the same policies as they have for on-premises VMs to the VMs running in Azure, including domain administrator permissions and schema extensions.
You need to recommend a solution for the hybrid scenario that minimizes the amount of maintenance required.
What should you recommend? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area



Hide Solution Discussion 17
Correct Answer:

Answer Area

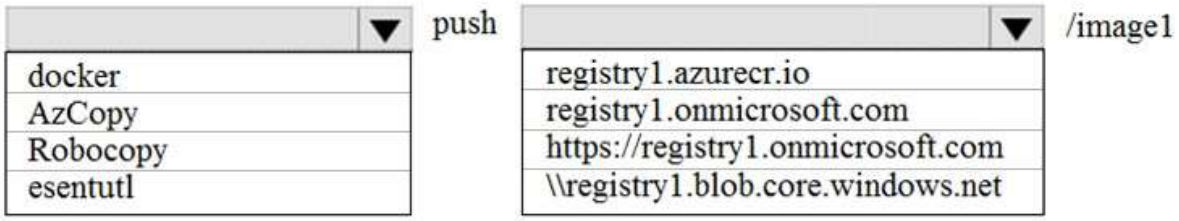


Box 1: Join the VMs to a new domain controller VM in Azure
Azure provides two solutions for implementing directory and identity services in Azure:
☞ (Used in this scenario) Extend your existing on-premises Active Directory infrastructure to Azure, by deploying a VM in Azure that runs AD DS as a Domain
Controller. This architecture is more common when the on-premises network and the Azure virtual network (VNet) are connected by a VPN or ExpressRoute connection.
☞ Use Azure AD to create an Active Directory domain in the cloud and connect it to your on-premises Active Directory domain. Azure AD Connect integrates your on-premises directories with Azure AD.
Box 2: Set up VPN connectivity.
This architecture is more common when the on-premises network and the Azure virtual network (VNet) are connected by a VPN or ExpressRoute connection.
References:
https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/identity/

Question #97*Topic 5*
HOTSPOT -
Your company has an Azure Container Registry named Registry1.
You have an Azure virtual machine named Server1 that runs Windows Server 2019.
From Server1, you create a container image named image1.
You need to add image1 to Registry1.
Which command should you run on Server1? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

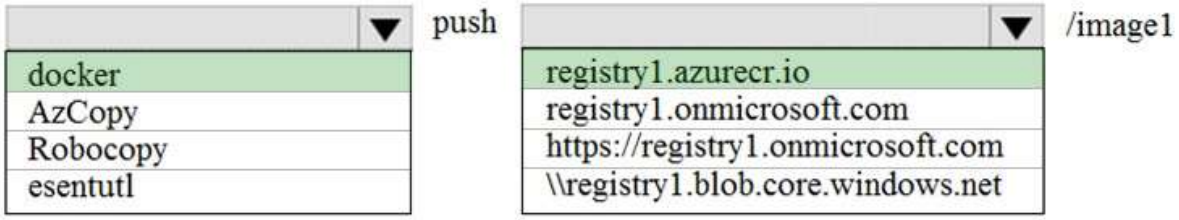
Answer Area



Hide Solution Discussion 4

Correct Answer:

Answer Area



An Azure container registry stores and manages private Docker container images, similar to the way Docker Hub stores public Docker images. You can use the Docker command-line interface (Docker CLI) for login, push, pull, and other operations on your container registry.
Reference:
https://docs.microsoft.com/en-us/azure/container-registry/container-registry-get-started-docker-cli https://docs.docker.com/engine/reference/commandline/push/

Question #98*Topic 5*
Your company has an office in Seattle.
You have an Azure subscription that contains a virtual network named VNET1.
You create a site-to-site VPN between the Seattle office and VNET1.
VNET1 contains the subnets shown in the following table.

Name	IP address space
Subnet1	10.1.1.0/24
GatewaySubnet	10.1.200.0/28

You need to route all Internet-bound traffic from Subnet1 to the Seattle office.
What should you create?

- A. a route for GatewaySubnet that uses the virtual network gateway as the next hop
- B. a route for GatewaySubnet that uses the local network gateway as the next hop
- C. a route for Subnet1 that uses the local network gateway as the next hop
- D. a route for Subnet1 that uses the virtual network gateway as the next hop

Hide Solution | Discussion 10

Correct Answer: *D*

A route with the 0.0.0.0/0 address prefix instructs Azure how to route traffic destined for an IP address that is not within the address prefix of any other route in a subnet's route table. When a subnet is created, Azure creates a default route to the 0.0.0.0/0 address prefix, with the Internet next hop type. We need to create a custom route in Azure to use a virtual network gateway in the Seattle office as the next hop.

Reference:

https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview

Question #99*Topic 5*

HOTSPOT -

You have an Azure subscription that contains the Azure SQL servers shown in the following table.

Name	Region	In resource group
Sql1	West US	RG1
Sql2	West US	RG1

The subscription contains the elastic pools shown in the following table.

Name	On Azure SQL server
Pool1	Sql1
Pool2	Sql1
Pool3	Sql2

The subscription contains the Azure SQL databases shown in the following table.

Name	On Azure SQL server	Pool
DB1	Sql1	Pool1
DB2	Sql1	Pool2
DB3	Sql1	*None*

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
DB1 can be removed from Pool1 and added to Pool2	○	○
DB2 can be removed from Pool2 and added to Pool3	○	○
DB3 can be added to Pool1	○	○

Hide Solution | Discussion 9

Correct Answer:

Answer Area

Statements	Yes	No
DB1 can be removed from Pool1 and added to Pool2	○	○
DB2 can be removed from Pool2 and added to Pool3	○	○
DB3 can be added to Pool1	○	○

Note: You cannot add databases from different servers into the same pool

Box 1: Yes -
Pool2 contains DB2 but DB1 and DB2 are on Sql1. DB1 can thus be added to Pool2.

Box 2: Yes -
Pool3 is empty.

Box 3: Yes -
Pool1 contains DB1 but DB3 and DB1 are on Sql1. DB3 can thus be added to Pool1.
References:
https://docs.microsoft.com/en-us/azure/sql-database/sql-database-elastic-pool

Question #100*Topic 5*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Active Directory (Azure AD) tenant named contoso.com.
A user named Admin1 attempts to create an access review from the Azure Active Directory admin center and discovers that the Access reviews settings are unavailable. Admin1 discovers that all the other Identity Governance settings are available.
Admin1 is assigned the User administrator, Compliance administrator, and Security administrator roles.
You need to ensure that Admin1 can create access reviews in contoso.com.
Solution: You create an access package.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 3
Correct Answer: *B*
You do not use access packages for Identity Governance. Instead use Azure AD Privileged Identity Management.
Note: PIM essentially helps you manage the who, what, when, where, and why for resources that you care about. Key features of PIM include:
Conduct access reviews to ensure users still need roles
References:
https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure https://docs.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-overview

Question #101*Topic 5*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Active Directory (Azure AD) tenant named contoso.com.
A user named Admin1 attempts to create an access review from the Azure Active Directory admin center and discovers that the Access reviews settings are unavailable. Admin1 discovers that all the other Identity Governance settings are available.
Admin1 is assigned the User administrator, Compliance administrator, and Security administrator roles.
You need to ensure that Admin1 can create access reviews in contoso.com.
Solution: You assign the Service administrator role to Admin1.
Does this meet the goal?

- A. Yes

- B. No

Hide Solution Discussion 3

Correct Answer: *B*

Instead use Azure AD Privileged Identity Management.

Note: PIM essentially helps you manage the who, what, when, where, and why for resources that you care about. Key features of PIM include:

☞ Conduct access reviews to ensure users still need roles

References:

https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure

Question #102*Topic 5*

HOTSPOT -

You have an Azure Resource Manager template for a virtual machine named Template1. Template1 has the following parameters section.

```
"parameters": {
    "adminUsername": {
        "type": "string"
    },
    "adminPassword": {
        "type": "securestring"
    },
    "dnsLabelPrefix": {
        "type": "string"
    },
    "windowsOSVersion": {
        "type": "string"
        "defaultValue": "2016-Datacenter",
        "allowedValues": [
            "2016-Datacenter",
            "2019-Datacenter"
        ]
    },
    "location": {
        "type": "String",
        "allowedValues": [
            "eastus",
            "centralus",
            "westus" ]
    }
},
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
When you deploy Template1, you are prompted for a resource group.	○	○
When you deploy Template1, you are prompted for the Windows operating system version.	○	○
When you deploy Template1, you are prompted for a location.	○	○

Hide Solution | Discussion 6

Correct Answer:

Answer Area

Statements	Yes	No
When you deploy Template1, you are prompted for a resource group.	○	○
When you deploy Template1, you are prompted for the Windows operating system version.	○	○
When you deploy Template1, you are prompted for a location.	○	○

Box 1: Yes -
The Resource group is not specified.

Box 2: No -
The default value for the operating system is Windows 2016 Datacenter.

Box 3: Yes -
Location is no default value.
References:
https://docs.microsoft.com/bs-latn-ba/azure/virtual-machines/windows/ps-template

Question #103*Topic 5*
HOTSPOT -
You have an Azure Active Directory (Azure AD) tenant named contoso.com. The tenant contains the users shown in the following table.

Name	Member of
User1	Group1
User2	Group2

The tenant contains computers that run Windows 10. The computers are configured as shown in the following table.

Name	Member of
Computer1	GroupA
Computer2	GroupA
Computer3	GroupB

You enable Enterprise State Roaming in contoso.com for Group1 and GroupA.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
If User1 modifies the desktop background of Computer1, User1 will see the changed background when signing in to Computer3.	○	○
If User2 modifies the desktop background of Computer1, User2 will see the changed background when signing in to Computer2.	○	○
If User1 modifies the desktop background of Computer3, User1 will see the changed background when signing in to Computer2.	○	○

Hide Solution | Discussion 3

Correct Answer:

Answer Area

Statements	Yes	No
If User1 modifies the desktop background of Computer1, User1 will see the changed background when signing in to Computer3.	●	○
If User2 modifies the desktop background of Computer1, User2 will see the changed background when signing in to Computer2.	○	●
If User1 modifies the desktop background of Computer3, User1 will see the changed background when signing in to Computer2.	●	○

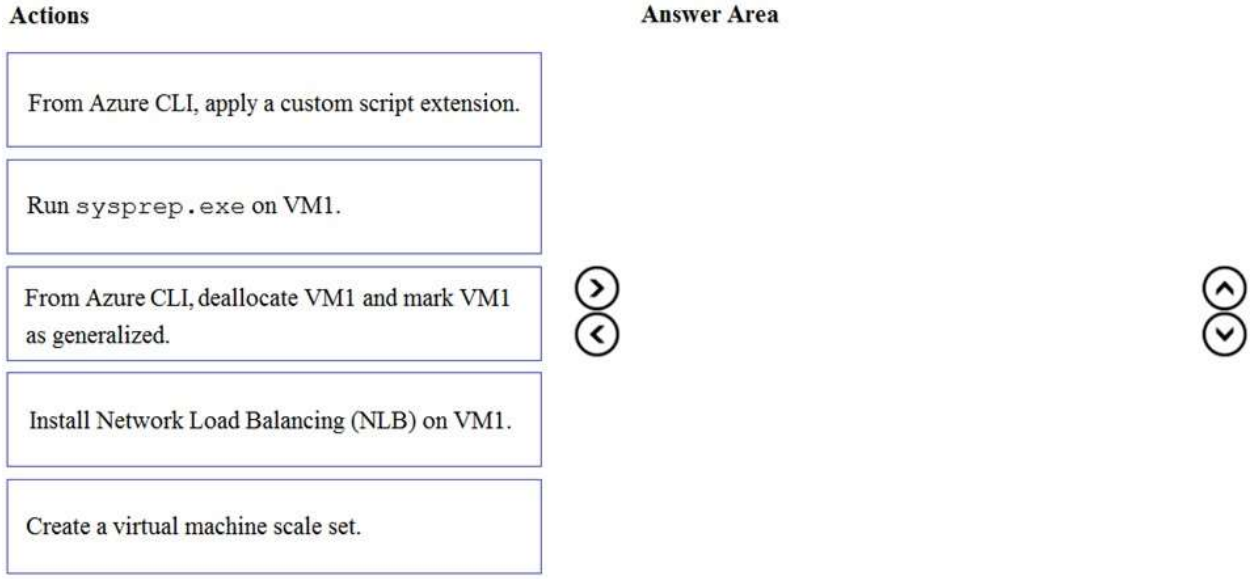
Enterprise State Roaming provides users with a unified experience across their Windows devices and reduces the time needed for configuring a new device.

Box 1: Yes -

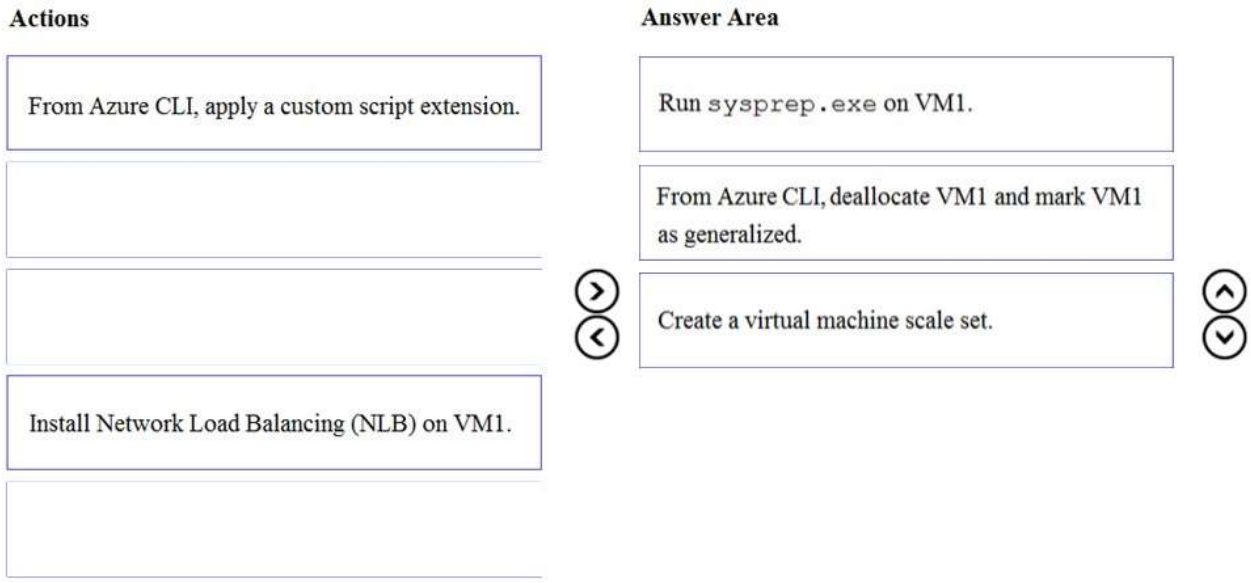
Box 2: No -

Box 3: Yes -
References:
https://docs.microsoft.com/en-us/azure//////active-directory/devices/enterprise-state-roaming-overview

Question #104*Topic 5*
DRAG DROP -
You have an Azure virtual machine named VM1 that runs Windows Server 2016.
You install a line-of-business application on VM1.
You need to create a scale set by using VM1 as a custom image.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.
Select and Place:



Hide Solution Discussion 7
Correct Answer:



Step 1: Run sysprep.exe on VM1.
The final step to prepare your VM for use as a custom image is to generalize the VM. Sysprep removes all your personal account information and configurations, and resets the VM to a clean state for future deployments.
Step 2: From Azure CLI, deallocate VM1 and mark VM1 as generalized,
To create an image, the VM needs to be deallocated. Deallocate the VM with Stop-AzVm. Then, set the state of the VM as generalized with Set-AzVm so that the
Azure platform knows the VM is ready for use a custom image. You can only create an image from a generalized VM.
It may take a few minutes to deallocate and generalize the VM.
Then create an image of the VM with New-AzImageConfig and New-AzImage.
Step 3: Create a virtual machine scale set.
Create a scale set with New-AzVmss that uses the -ImageName parameter to define the custom VM image created in the previous step.
References:
https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/tutorial-use-custom-image-powershell

Question #105*Topic 5*
HOTSPOT -
You have an Azure web app named App1 that has the following configurations:
- ☞ The app runs on three instances.
- ☞ The minimum number of instances is one.
- ☞ The maximum number of instances is five.

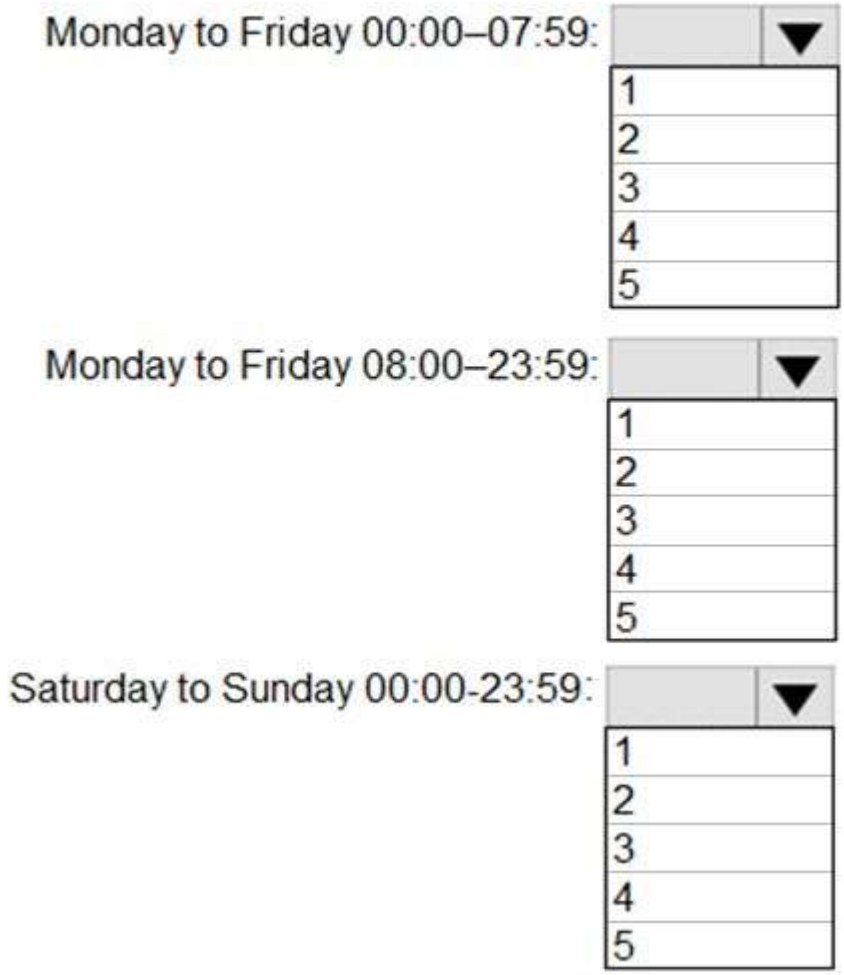
You create the following autoscale rules for App1:
- ☞ Decrease the instance count by one when the CPU percentage is less than 30.
- ☞ Decrease the instance count by one when the memory percentage is less than 50.
- ☞ Increase the instance count by one when the CPU percentage is greater than 80.
- ☞ Increase the instance count by one when the memory percentage is greater than 75.

You expect App1 to be utilized as shown in the following table.

Day	Hours	CPU	Memory
Monday to Friday	08:00 to 23:59	85%	40%
Monday to Friday	00:00 to 07:59	25%	60%
Saturday to Sunday	00:00 to 23:59	30%	55%

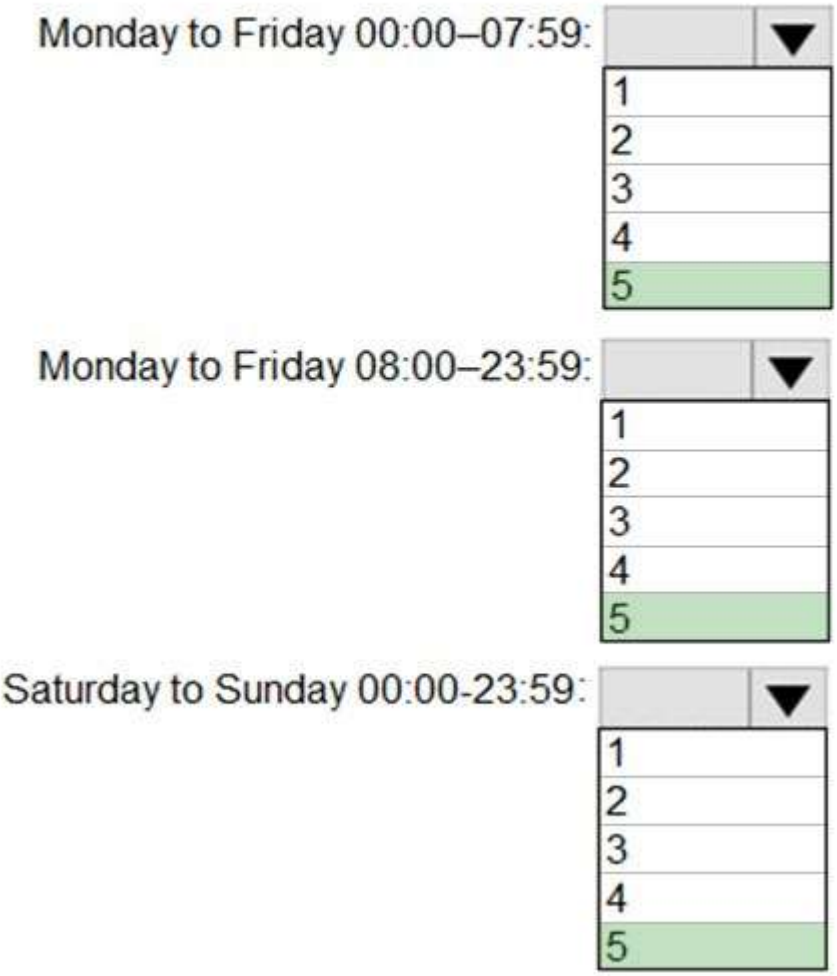
You need to identify the maximum number of instances that will be used by App1 during the expected periods of utilization.
What should you identify? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area



Hide Solution | Discussion 71

Answer Area



Correct Answer:
On scale out, autoscale runs if any rule is met. On scale-in, autoscale requires all rules to be met. Therefore, the web app will scale out but will never scale back in because there is no time where the CPU is less than 30% AND the memory is less than 50%.

Question #106*Topic 5*

You have an Azure subscription named Subscription1 that contains an Azure virtual network named VNet1. VNet1 connects to your on-premises network by using
Azure ExpressRoute.
You plan to prepare the environment for automatic failover in case of ExpressRoute failure.
You need to connect VNet1 to the on-premises network by using a site-to-site VPN. The solution must minimize cost.
Which three actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. Create a VPN gateway that uses the VpnGw1 SKU.
- B. Create a connection.
- C. Create a local site VPN gateway.
- D. Create a gateway subnet.
- E. Create a VPN gateway that uses the Basic SKU.

Hide Solution | Discussion 17

Correct Answer: *BCD*
Reference:
https://docs.microsoft.com/en-za/archive/blogs/canitpro/step-by-step-configuring-a-site-to-site-vpn-gateway-between-azure-and-on-premise
Question #107*Topic 5*

You have an Azure web app named App1 that is configured to run between two and five instances.
There are currently three instances of App1 running.
App1 has the following autoscale rules:
Increase the instance count by one when the CPU percentage is greater or equal to 80.
Decrease the instance count by one when the CPU percentage is less than or equal to 60.
You are evaluating the following CPU percentage of utilization for App1:
☞ 60%
☞ 55%
☞ 50%
☞ 45%
You need to identify which utilizations will cause App1 to scale in.

- A. 45% only
- B. 45% and 50% only
- C. 50% and 55% only
- D. 45%, 50%, and 55% only

Hide Solution | Discussion 30

Correct Answer: *D*
Azure Monitor autoscaling allows you to scale the number of running instances up or down, based on telemetry data (metrics). Scale-in occurs when the instances are decrease. For this rule the instances are decreased when the CPU usage is 60% or lower.
References:
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-custom-metric
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-common-metrics
Question #108*Topic 5*

You monitor Azure virtual machines by using Azure Monitor.
You plan to restart the virtual machines when CPU usage exceeds 95 percent for more than 30 minutes.

You need to create an alert in Azure Monitor to restart the virtual machines. The solution must minimize administrative effort.
Which type of action should you use in the alert?

- A. ITSM
- B. Webhook
- C. Automation Runbook
- D. Logic App

Hide Solution Discussion 7

Correct Answer: *C*
Automation runbooks allows you to automatically perform standard remediations in response to VM alerts, like restarting or stopping the VM.
Previously, during VM alert rule creation you were able to specify an Automation webhook to a runbook in order to run the runbook whenever the alert triggered.
However, this required you to do the work of creating the runbook, creating the webhook for the runbook, and then copying and pasting the webhook during alert rule creation. With this new release, the process is much easier because you can directly choose a runbook from a list during alert rule creation, and you can choose an Automation account which will run the runbook or easily create an account.
Reference:
https://azure.microsoft.com/en-us/blog/automatically-remediate-azure-vm-alerts-with-automation-runbooks/
Question #109*Topic 5*

You have a server named Server1 that runs Windows Server 2019. Server1 is a container host.
You plan to create a container image.
You create the following instructions in a text editor.
FROM mcr.microsoft.com/windows/servercore:lts2019
LABEL maintainer="User1@contoso.com"
RUN dism.exe /online /enable-feature /all /featurename:iis-webserver /NoRestart
RUN echo "Hello World!" > c:\inetpub\wwwroot\index.html
You need to be able to automate the container image creation by using the instructions.
To which file should you save the instructions?

- A. dockerconfig.json
- B. Dockerfile
- C. daemon.json
- D. Build.ini

Hide Solution Discussion 2

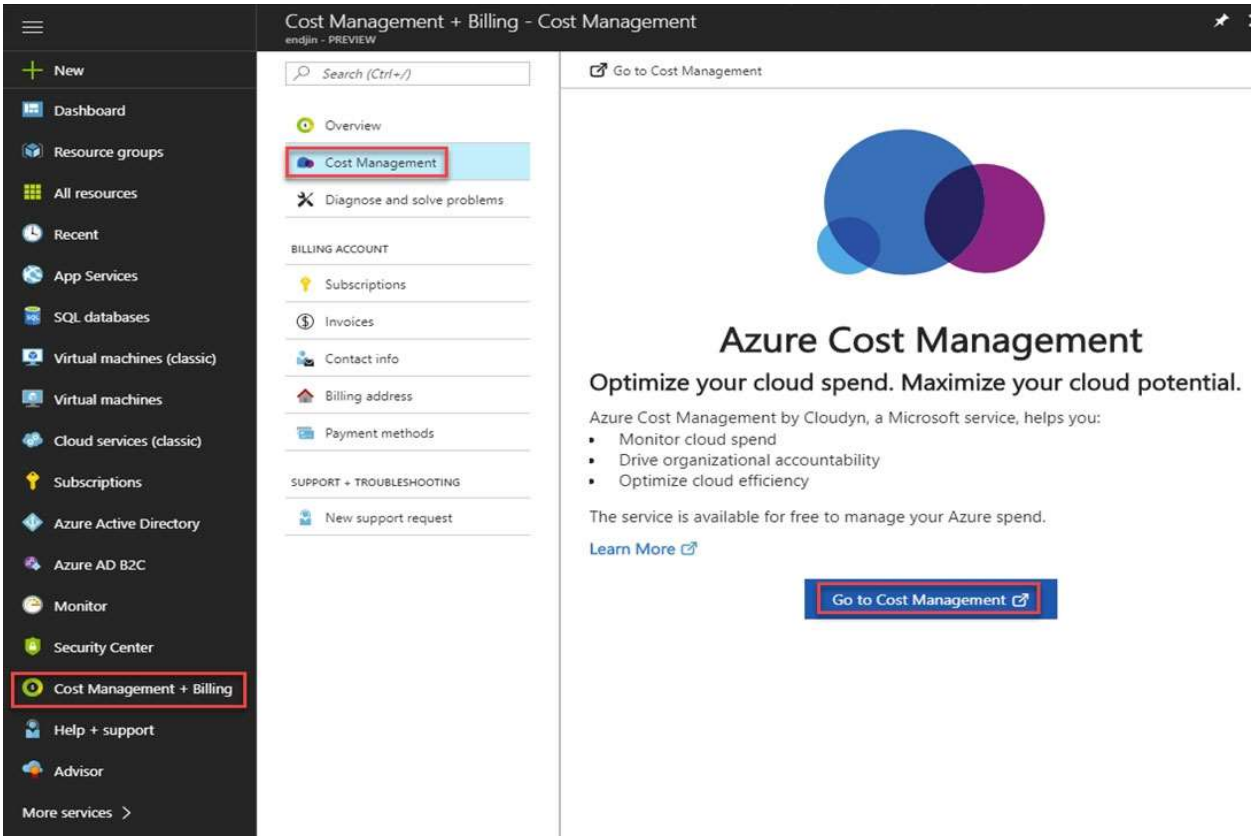
Correct Answer: *B*
The Dockerfile is a text file that contains the instructions needed to create a new container image.
Reference:
https://docs.microsoft.com/en-us/virtualization/windowscontainers/manage-docker/manage-windows-dockerfile
Question #110*Topic 5*

You have an Azure subscription that contains a resource group named RG1. RG1 contains multiple resources.
You need to trigger an alert when the resources in RG1 consume $1,000 USD.
What should you do?

- A. From Cost Management + Billing, add a cloud connector.
- B. From the subscription, create an event subscription.
- C. From Cost Management + Billing create a budget.
- D. From RG1, create an event subscription.

Hide Solution Discussion 10

Correct Answer: *C*
Create budgets to manage costs and create alerts that automatically notify you are your stakeholders of spending anomalies and overspending.
To set it up, go to the Azure Portal, select 'Cost Management + Billing' -> 'Cost Management' -> 'Go to Cost Management'.



Note: Cost alerts are automatically generated based when Azure resources are consumed. Alerts show all active cost management and billing alerts together in one place. When your consumption reaches a given threshold, alerts are generated by Cost Management. There are three types of cost alerts: budget alerts, credit alerts, and department spending quota alerts.
Reference:
https://docs.microsoft.com/en-us/azure/cost-management-billing/manage/getting-started
Question #111*Topic 5*

HOTSPOT -
You have an Azure subscription that contains the resources shown in the following table.

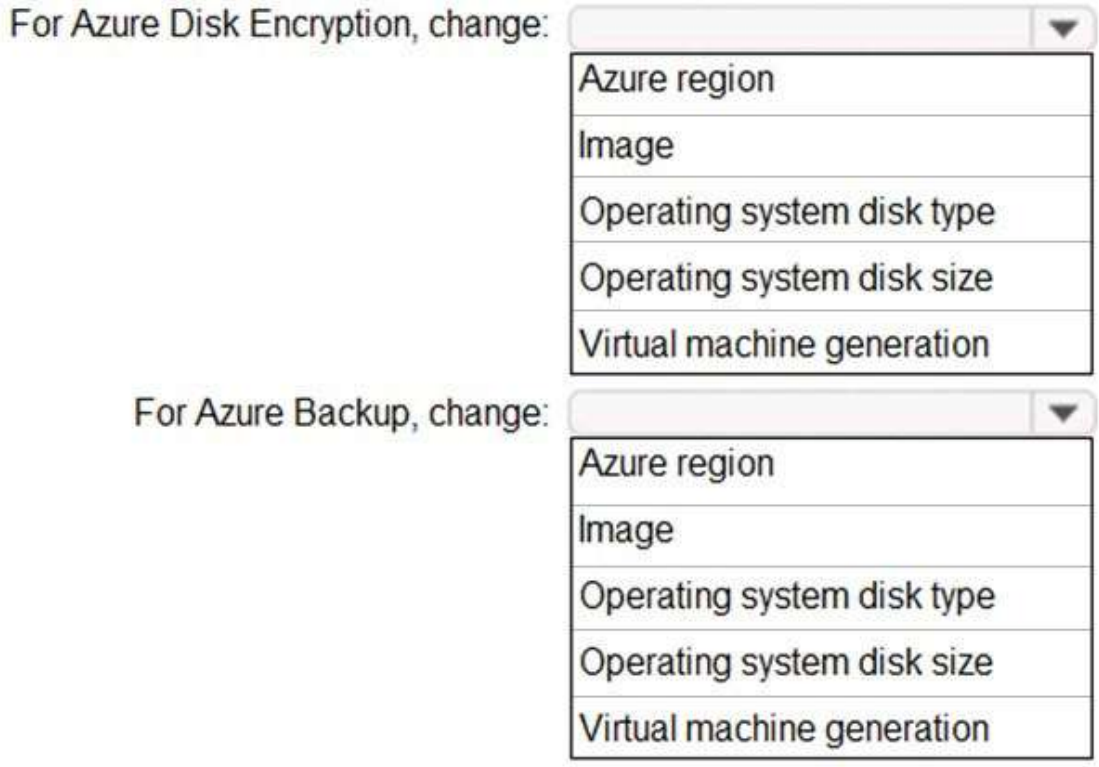
Name	Type	Azure region
Vault1	Recovery Services vault	West US
KeyVault1	Azure key vault	Central US

You plan to deploy an Azure virtual machine that will have the following configurations:
- Name: VM1
- Azure region: Central US
- Image: Ubuntu Server 18.04 LTS
- Operating system disk size: 1 TB
- Virtual machine generation: Gen 2
- Operating system disk type: Standard SSD

You need to protect VM1 by using Azure Disk Encryption and Azure Backup.
On VM1, which configurations should you change? To answer, select the appropriate options in the

answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

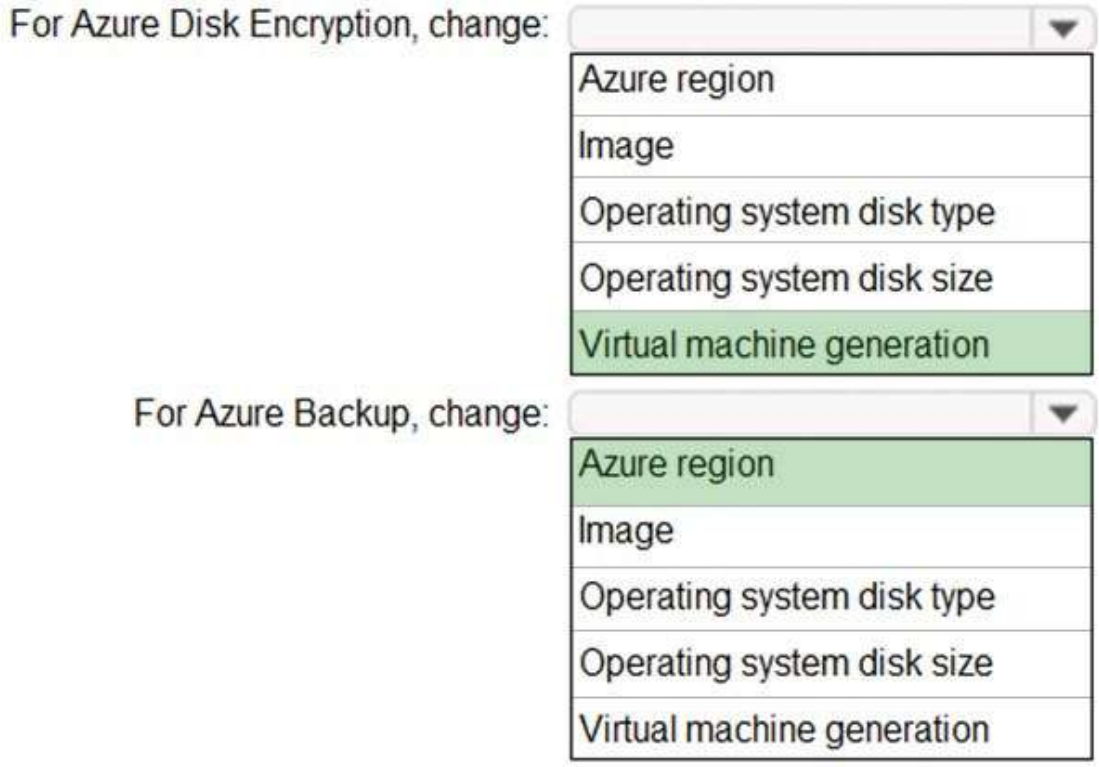
Answer Area



Hide Solution | Discussion 10

Correct Answer:

Answer Area

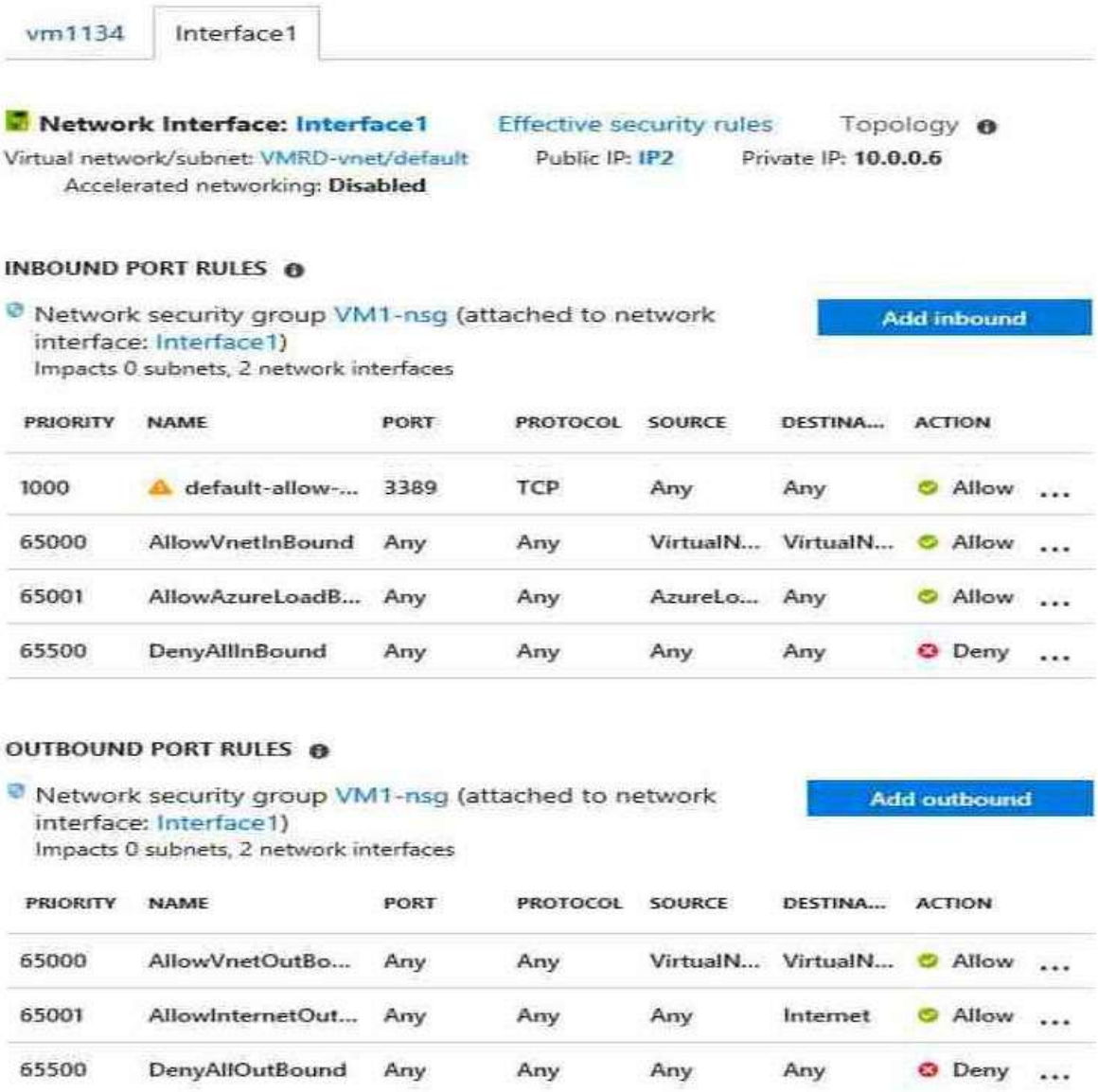


Box 1: Virtual machine generation
Azure Disk Encryption is not available on Generation 2 VMs) and Lsv2-series VMs).

Box 2: Azure Region -
Backup is within a region.
You need a Recovery Services vault in every Azure region that contains VMs you want to back up.
You can't back up to a different region.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/linux/disk-encryption-overview
https://docs.microsoft.com/en-us/azure/backup/backup-support-matrix

Question #1*Topic 6*

You have an Azure subscription named Subscription1. Subscription1 contains a virtual machine named VM1. You have a computer Computer1 that runs Windows
10. Computer1 is connected to the Internet.
You add a network interface named Interface1 to VM1 as shown in the exhibit. (Click the Exhibit tab.)



From Computer1, you attempt to connect to VM1 by using Remote Desktop, but the connection fails.
You need to establish a Remote Desktop connection to VM1.
What should you do first?

- A. Attach a network interface
- B. Start VM1
- C. Delete the DenyAllOutBound outbound port rule
- D. Delete the DenyAllInBound inbound port rule

Hide Solution Discussion 3

Correct Answer: *B*
The exclamation icon next to the inbound port rule for port 3389, which is used for Remote Desktop, indicates an underlying problem. Restart the VM to correct any underlying issues the VM itself is having.
Incorrect Answers:
A: The network interface has already been added to VM.
C: The DenyAllOutBound outbound port rule will not affect inbound Remote Desktop connectivity.
D: An inbound rule for port 3389, which is used for Remote Desktop has been added and has a higher priority than the DenyAllInBound inbound port rule.
Note: Rules are processed in priority order, with lower numbers processed before higher numbers, because lower numbers have higher priority. Processing stops once traffic matches a rule. As a result, any rules that exist with lower priorities (higher numbers) that have the same attributes as rules with higher priorities are not processed.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/security-overview
Question #2*Topic 6*

You are designing an Azure solution.
The solution must meet the following requirements:
Distribute traffic to different pools of dedicated virtual machines (VMs) based on rules
Provide SSL offloading capabilities
You need to recommend a solution to distribute network traffic.
Which technology should you recommend?

- A. server-level firewall rules
- B. Azure Application Gateway
- C. Azure Traffic Manager
- D. Azure Load Balancer

Hide Solution Discussion 3

Correct Answer: *B*
If you require "SSL offloading", application layer treatment, or wish to delegate certificate management to Azure, you should use Azure's layer 7 load balancer
Application Gateway instead of the Load Balanacer.
Incorrect Answers:
D: Because Load Balancer is agnostic to the TCP payload and TLS offload ("SSL") is not provided.
References:
https://docs.microsoft.com/en-us/azure/application-gateway/overview
Question #3*Topic 6*

HOTSPOT -
You have an Azure subscription named Subscription1.
In Subscription1, you create an alert rule named Alert1. The Alert1 action group is configured as shown in the following exhibit.

```
PS Azure:\> Get-AzureRmActionGroup

ResourceGroupName     : default-activitylogalerts
GroupShortName        : AG1
Enabled               : True
EmailReceivers        : {Action1_-EmailAction-}
SmsReceivers          : {Action1_-SMSAction-}
WebhookReceivers      : {}
Id: /subscriptions/a4fde29b-d56a-4f6c-8298-6c53cd0b720c/resourceGroups/default-
activitylogalerts/providers/microsoft.insights/actionGroups/ActionGroup1
Name                  : ActionGroup1
Type                  : Microsoft.Insights/ActionGroups
Location              : Global
Tags                  : {}
```

Alert1 alert criteria is triggered every minute.

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The number of email messages that Alert1 will send in an hour is **[answer choice]**.

0
4
6
12
60

The number of SMS messages that Alert1 will send in an hour is **[answer choice]**.

0
4
6
12
60

Hide Solution | Discussion 3

Correct Answer:

Answer Area

The number of email messages that Alert1 will send in an hour is **[answer choice]**.

0
4
6
12
60

The number of SMS messages that Alert1 will send in an hour is **[answer choice]**.

0
4
6
12
60

Box 1: 60 -
One alert per minute will trigger one email per minute.

Box 2: 12 -
No more than 1 SMS every 5 minutes can be send, which equals 12 per hour.
Note: Rate limiting is a suspension of notifications that occurs when too many are sent to a particular phone number, email address or device. Rate limiting ensures that alerts are manageable and actionable.
The rate limit thresholds are:
☞ SMS: No more than 1 SMS every 5 minutes.
☞ Voice: No more than 1 Voice call every 5 minutes.
☞ Email: No more than 100 emails in an hour.
☞ Other actions are not rate limited.
References:
https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/azure-monitor/overview.md
Question #4*Topic 6*

HOTSPOT -
You have an Azure subscription named Subscription1 that contains the resources in the following table.

Name	Type
VM1	Virtual machine
VM2	Virtual machine
LB1	Load balancer

A web server runs on VM1 and VM2.
When you request a webpage named Page1.htm from the Internet, LB1 balances the web requests to VM1 and VM2., and you receive a response.
On LB1, you have a rule named Rule1 as shown in the Rule1 exhibit. (Click the Exhibit tab.)

*Name
Rule1
* IP Version
IPv4 IPv6
*Frontend IP address
51.144.82.206 (LoadBalancerFrontEnd)
Protocol
TCP UDP
*Port
80
*Backend port
80
Backend pool
BackEnd1 (2 virtual machines)
Health probe
Probe1(HTTP:80/Probe1.htm)
Session persistence
None
Idle timeout (minutes)
4
Floating IP (direct server return)
Disabled

You have a health probe named Probe1 as shown in the Probe1 exhibit. (Click the Exhibit tab.)

*Name
Probe1
* IP Version
IPv4
Protocol
HTTP | TCP
*Port
80
*Path
/Probe1.htm
*Interval
20
seconds
*Unhealthy threshold
2
consecutive failures
Used by
Rule1

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements

	Yes	No
If a user is served Page1.htm from VM1, and then the user refreshes the web browser, Page1.htm will be refreshed from VM1 always.	○	○
If you change the protocol of Rule1, all the web requests will fail.	○	○
If you delete Probe1.htm from VM2, LB1 will route all the web requests to VM1.	○	○

Hide Solution | Discussion 21

Correct Answer:

Answer Area

Statements

	Yes	No
If a user is served Page1.htm from VM1, and then the user refreshes the web browser, Page1.htm will be refreshed from VM1 always.	○	◯
If you change the protocol of Rule1, all the web requests will fail.	◯	○
If you delete Probe1.htm from VM2, LB1 will route all the web requests to VM1.	○	◯

Box 1: No -
Session Persistence is None.

Box 2: Yes -
Web requests uses the HTTP protocol, not the TCP protocol.

Box 3: No -
Note: Azure Load Balancer provides health probes for use with load-balancing rules. Health probe configuration and probe responses determine which backend pool instances will receive new flows. You can use health probes to detect the failure of an application on a backend instance. You can also generate a custom response to a health probe and use the health probe for flow control to manage load or planned downtime. When a health probe fails, Load Balancer stops sending new flows to the respective unhealthy instance.
References:
https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-custom-probe-overview
Question #5*Topic 6*
You develop an entertainment application where users can buy and trade virtual real estate. The application must scale to support thousands of users.
The current architecture includes five Azure virtual machines (VM) that connect to an Azure SQL Database for account information and Azure Table Storage for backend services. A user interacts with these components in the cloud at any given time.
☞ Routing Service ز€" Routes a request to the appropriate service and must not persist data across sessions.
☞ Account Service ز€" Stores and manages all account information and authentication and requires data to persist across sessions
☞ User Service ز€" Stores and manages all user information and requires data to persist across sessions.
☞ Housing Network Service ز€" Stores and manages the current real-estate economy and requires data to persist across sessions.
☞ Trade Service ز€" Stores and manages virtual trade between accounts and requires data to persist across sessions.

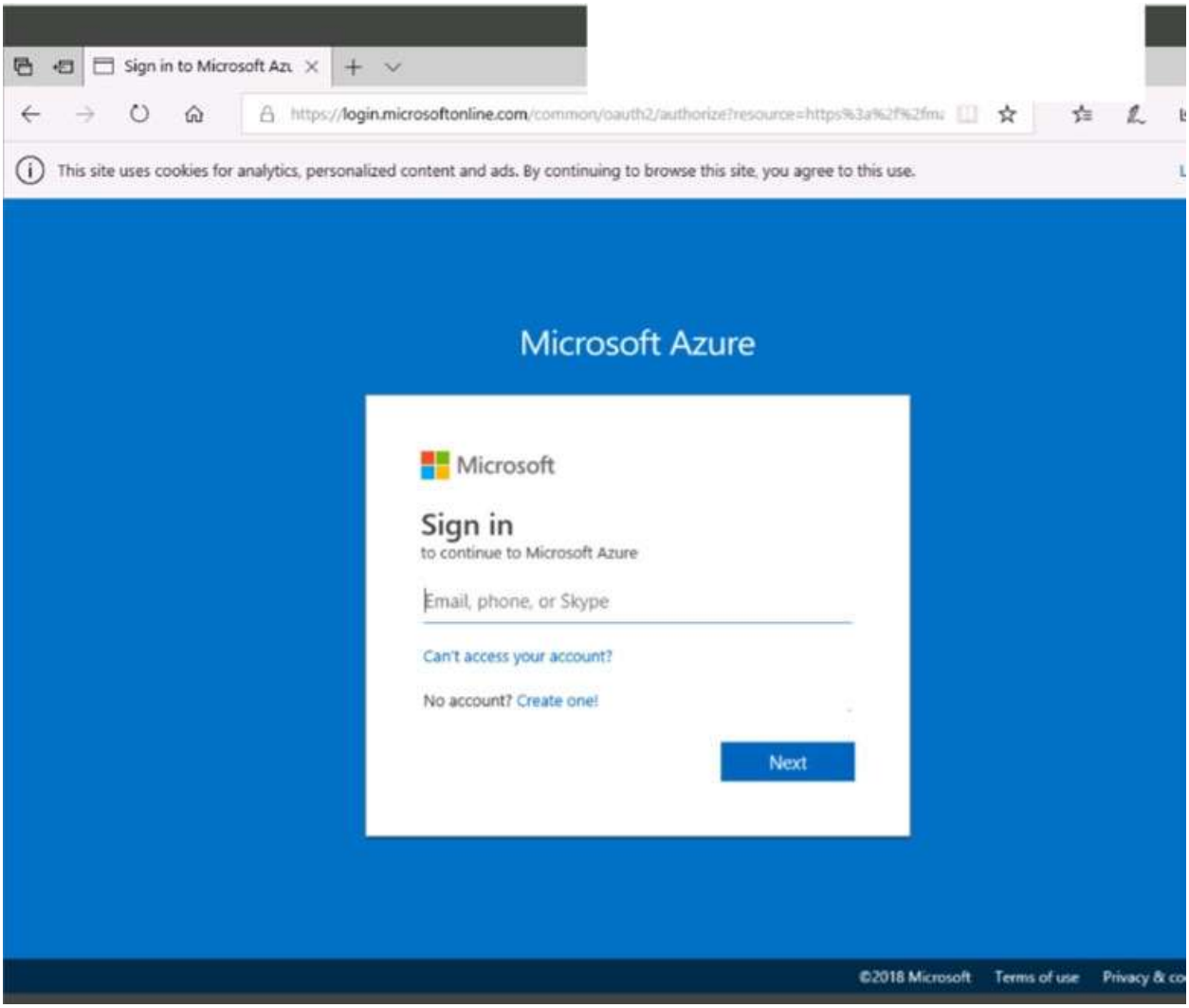
Due to volatile user traffic, a microservices solution is selected for scale agility.
You need to migrate to a distributed microservices solution on Azure Service Fabric.
Solution: Deploy a Windows container to Azure Service Fabric for each component.
Does the solution meet the goal?

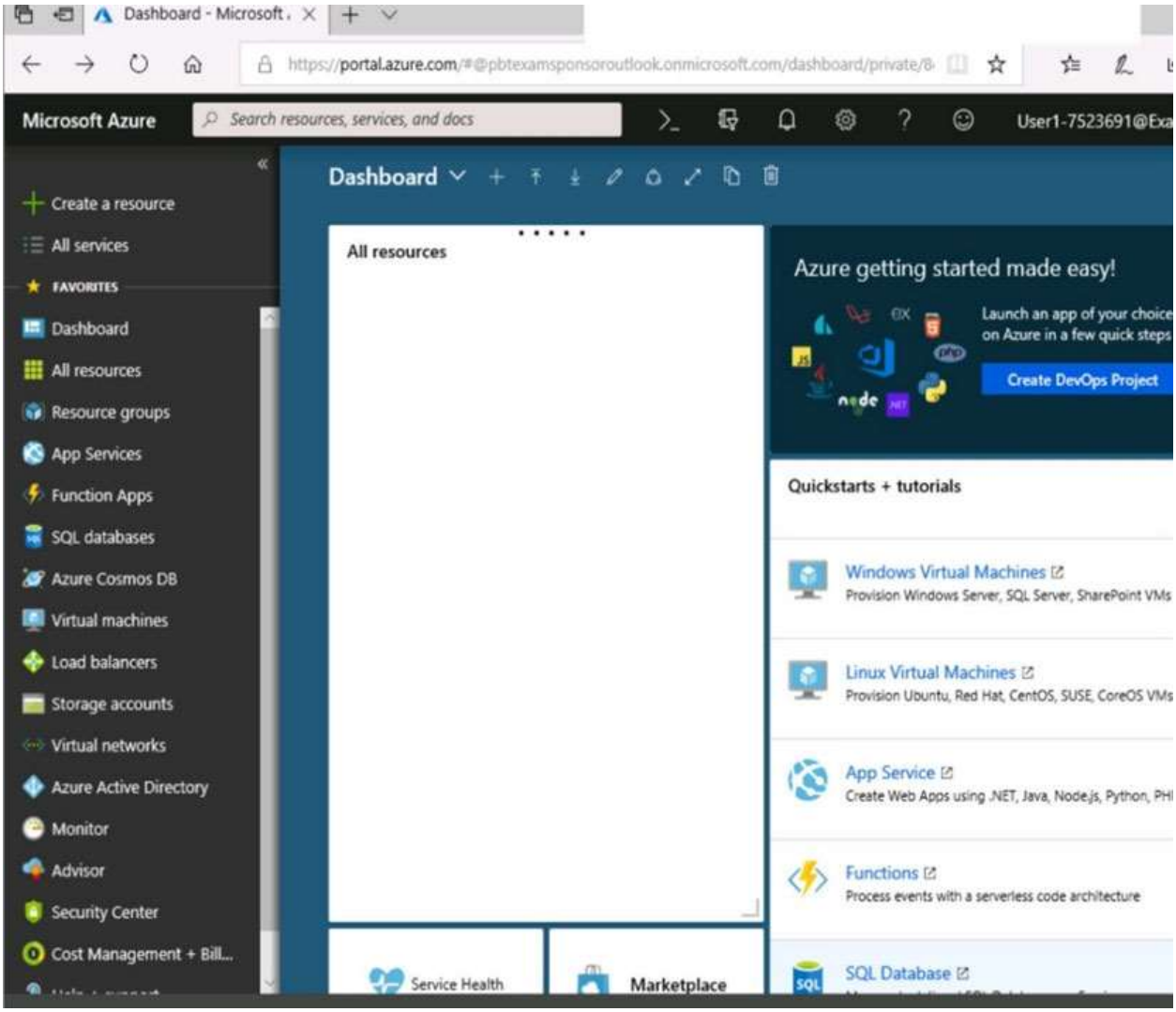
- A. Yes
- B. No

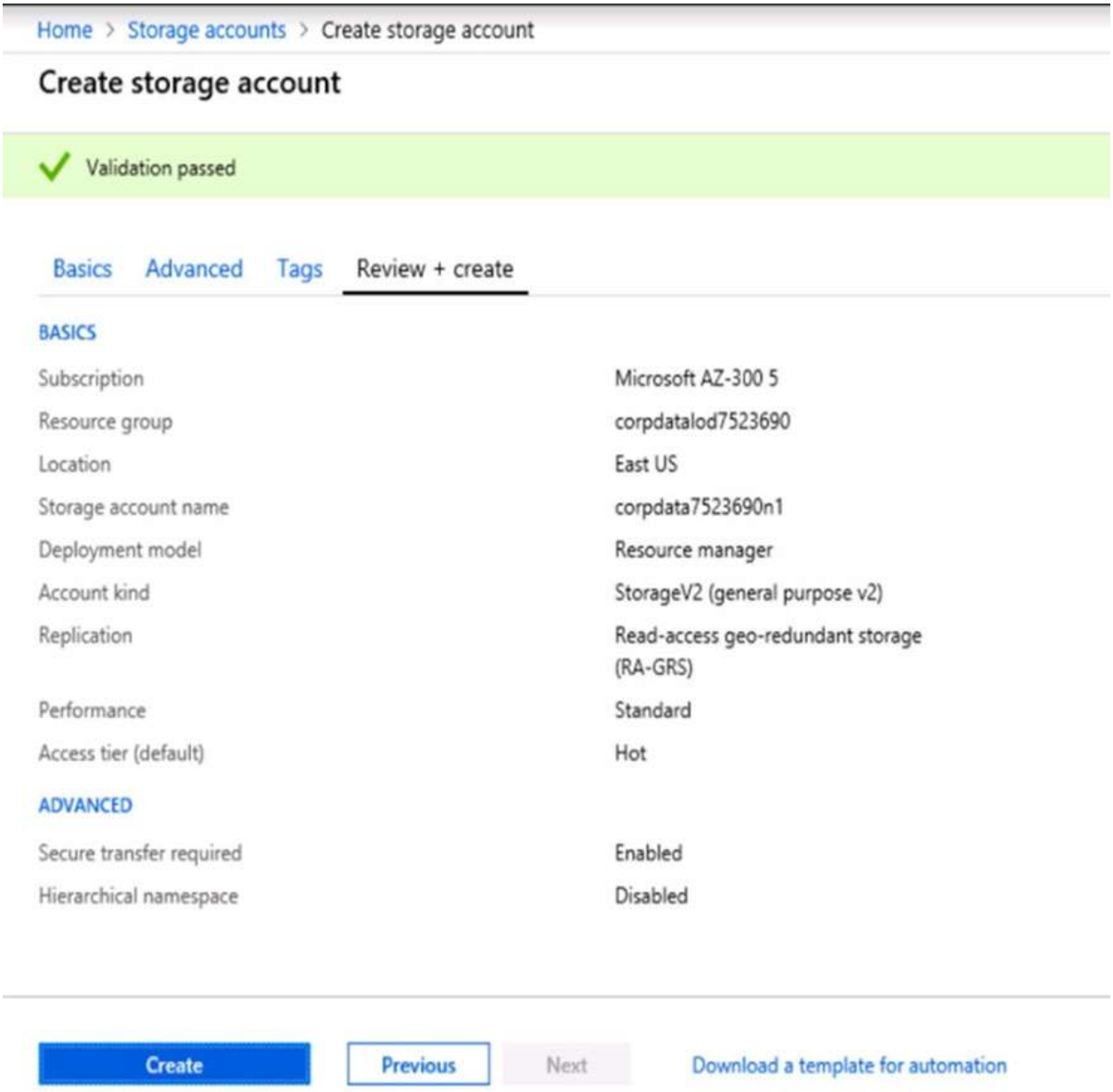
Hide Solution | Discussion 6

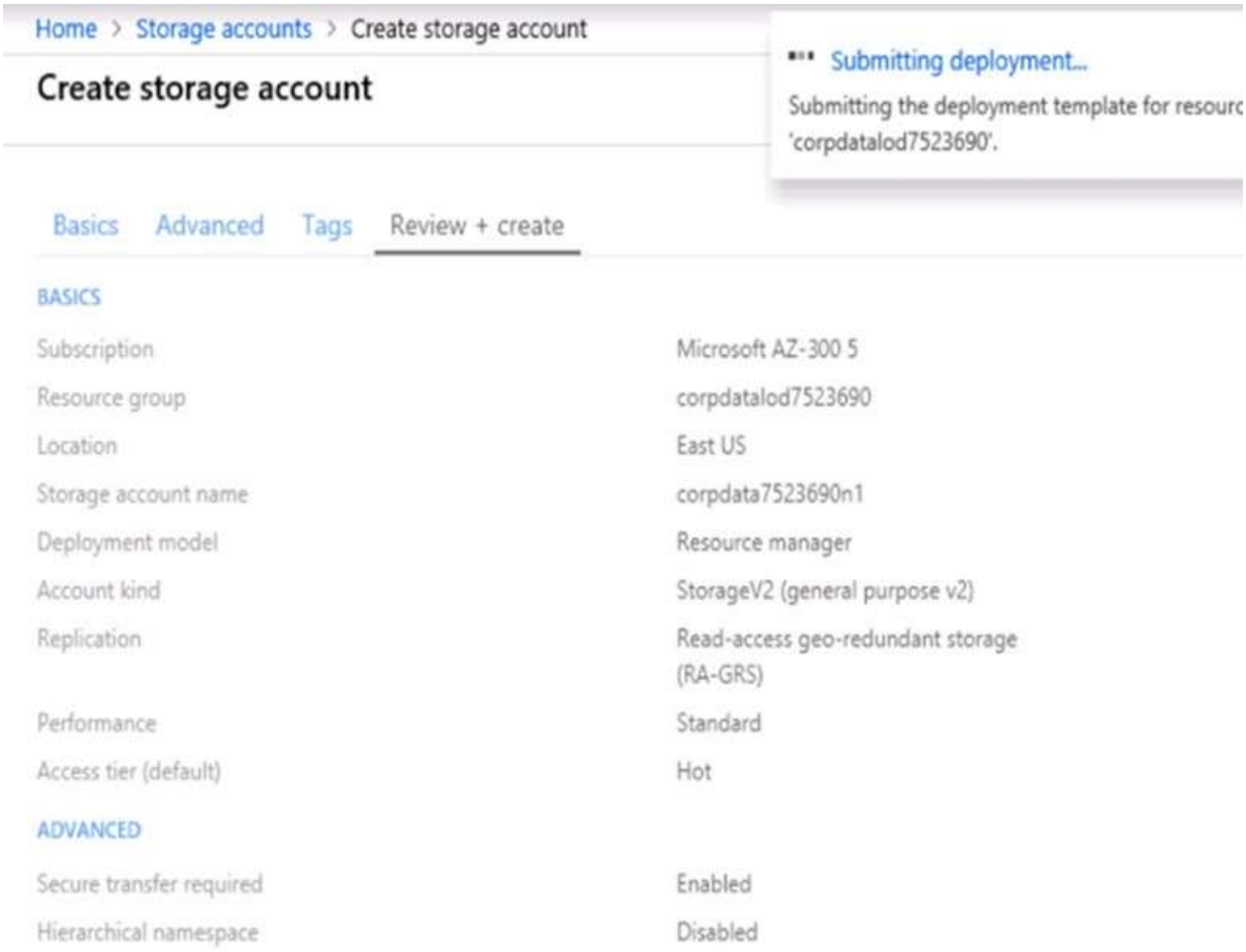
Correct Answer: *B*

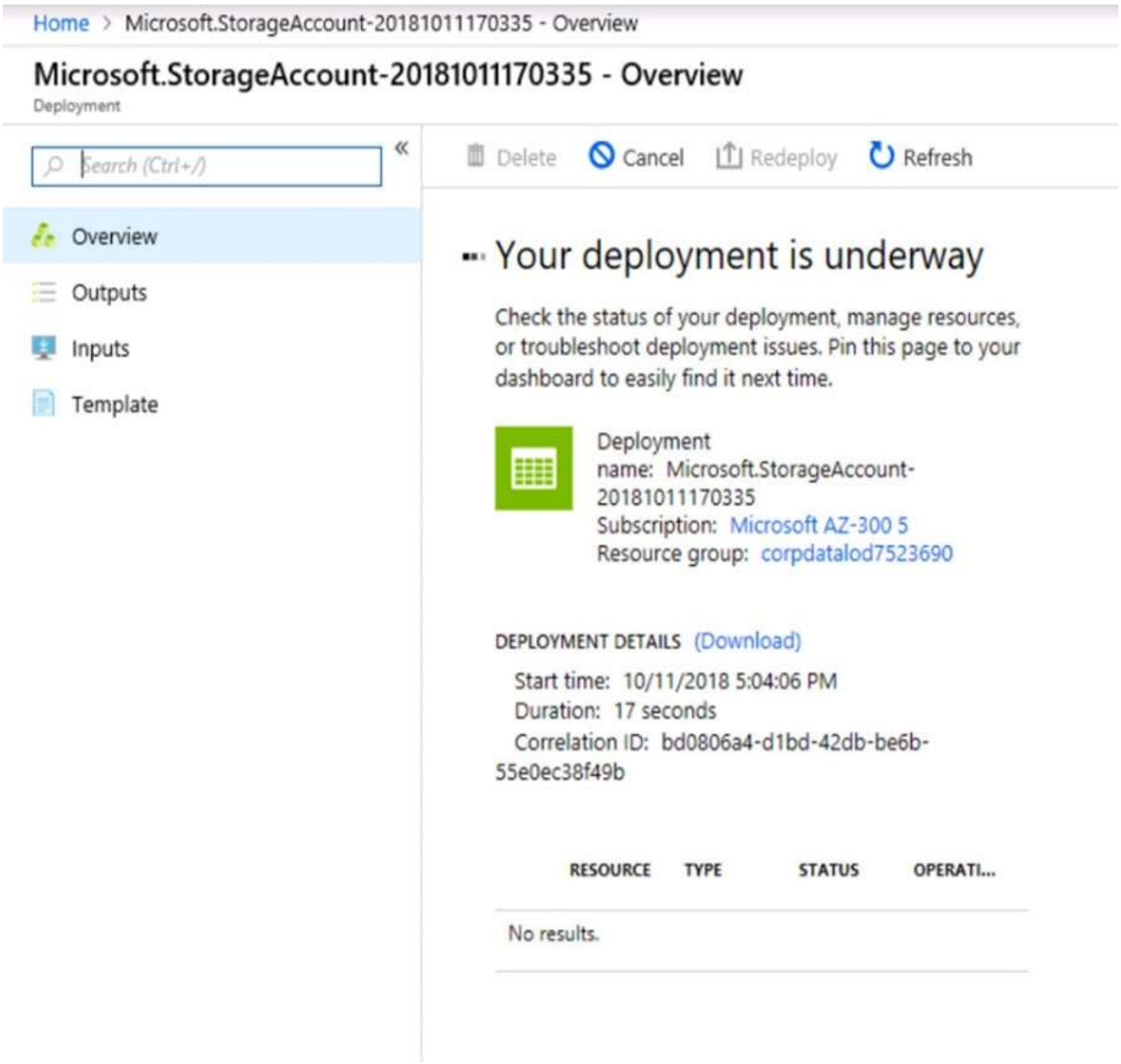
Question #6*Topic 6*
SIMULATION -
Click to expand each objective. To connect to the Azure portal, type https://portal.azure.com in the browser address bar.

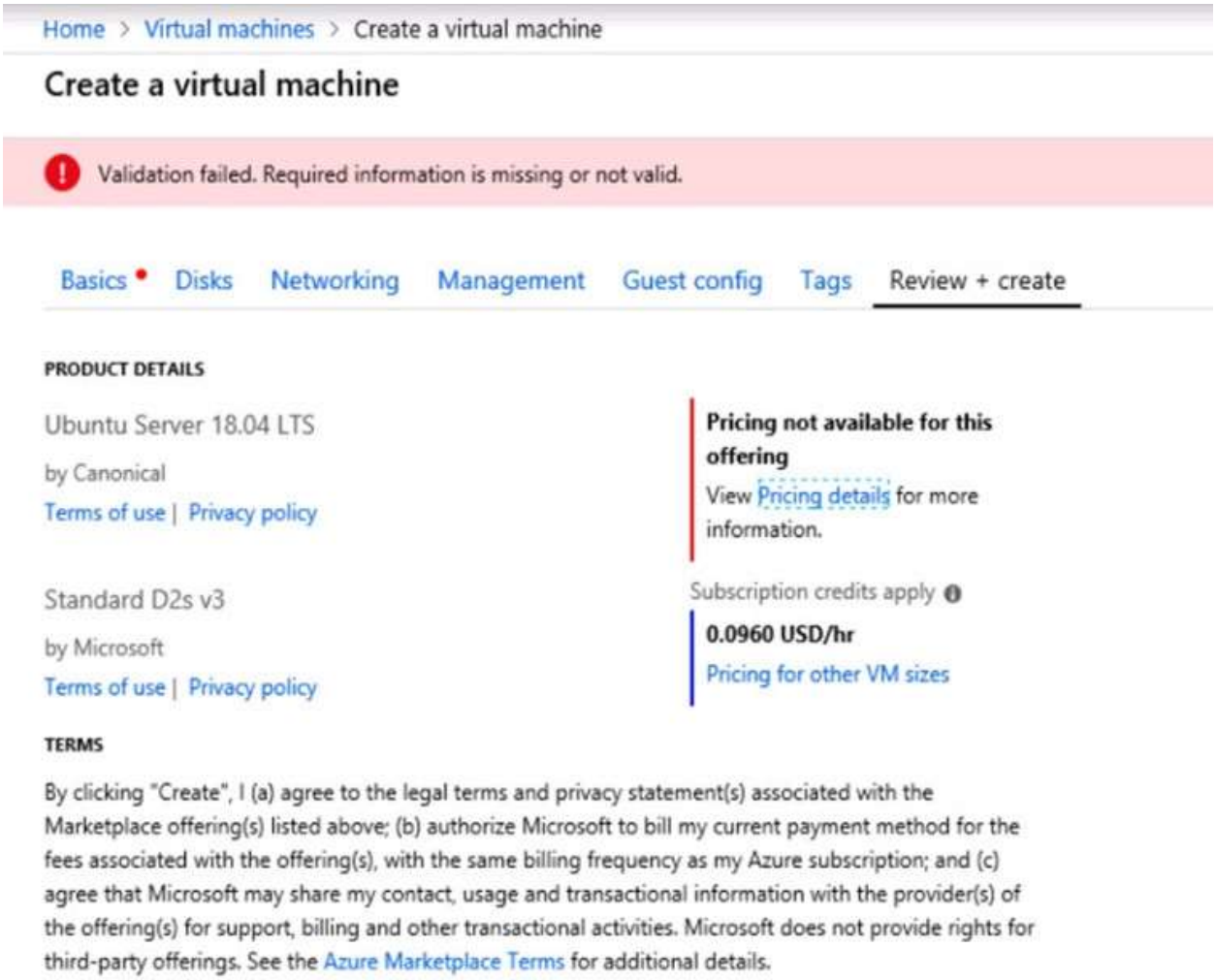












When you are finished performing all the tasks, click the ɜ€˜Nextɜ€™ button.
Note that you cannot return to the lab once you click the ɜ€˜Nextɜ€™ button. Scoring occur in the background while you complete the rest of the exam.

Overview -
The following section of the exam is a lab. In this section, you will perform a set of tasks in a live environment. While most functionality will be available to you as it would be in a live environment, some functionality (e.g., copy and paste, ability to navigate to external websites) will not be possible by design.
Scoring is based on the outcome of performing the tasks stated in the lab. In other words, it doesnɜ€™t matter how you accomplish the task, if you successfully perform it, you will earn credit for that task.
Labs are not timed separately, and this exam may have more than one lab that you must complete. You can use as much time as you would like to complete each lab. But, you should manage your time appropriately to ensure that you are able to complete the lab(s) and all other sections of the exam in the time provided.
Please note that once you submit your work by clicking the Next button within a lab, you will NOT be able to return to the lab.

To start the lab -
You may start the lab by clicking the Next button.
You plan to create several virtual machines in different availability zones, and then to configure the virtual machines to load balanced connections from the
Internet.
You need to create an IP address resource named ip1006 to support the planned load balancing solution.
The solution must minimize costs.
What should you do from the Azure portal?

Hide Solution Discussion 9

Correct Answer: *See solution below.*
We should create a public IP address.
Step 1: At the top, left corner of the portal, select + Create a resource.
Step 2: Enter public ip address in the Search the Marketplace box. When Public IP address appears in the search results, select it.
Step 3: Under Public IP address, select Create.
Step 4: Enter, or select values for the following settings, under Create public IP address, then select Create:
Name: ip1006
SKU: Basic SKU
IP Version: IPv6
IP address assignment: Dynamic
Subscription: Select appropriate
Resource group: Select appropriate
References:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-public-ip-address

Question #7*Topic 6*
You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Contains
Storagecontoso1	A blob service and a table service
Storagecontoso2	A blob service and a file service
Storagecontoso3	A queue service
Storagecontoso4	A file service and a queue service
Storagecontoso5	A table service

You enable Storage Advanced Threat Protection (ATP) for all the storage accounts.
You need to identify which storage accounts will generate Storage ATP alerts.
Which two storage accounts should you identify? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

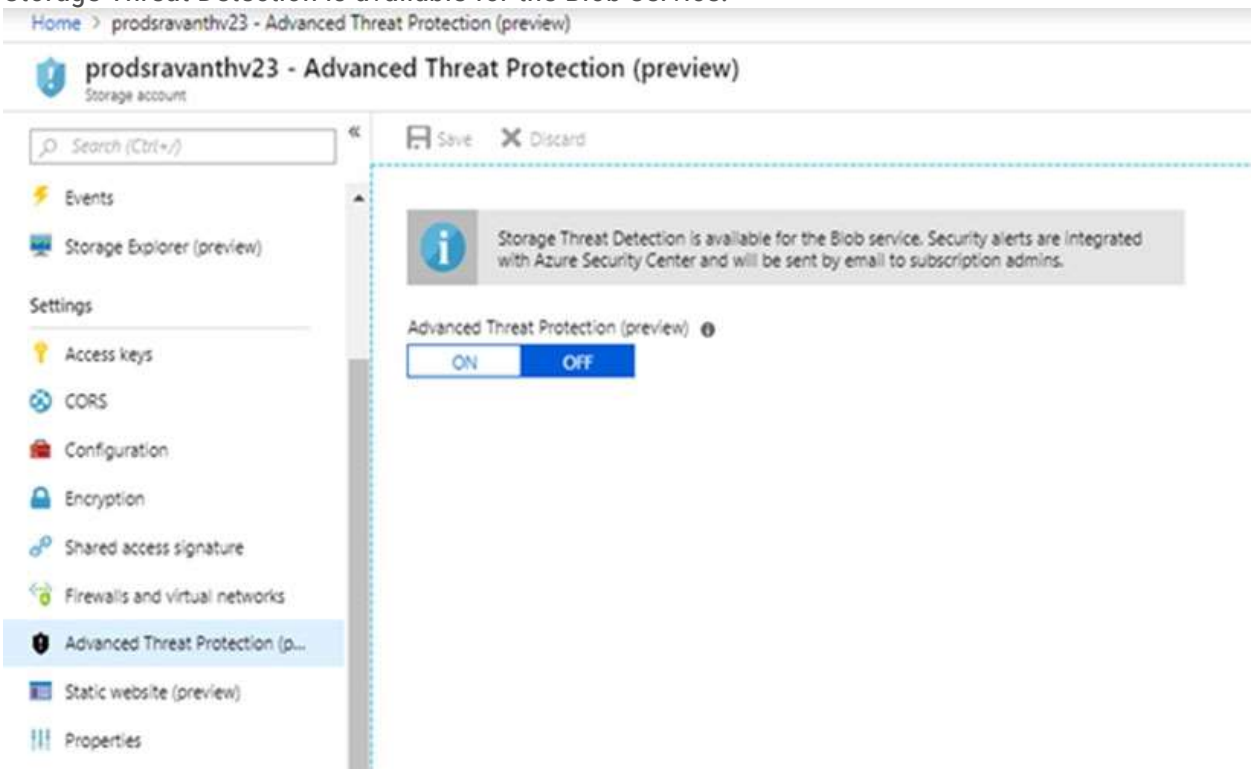
- A. storagecontoso1
- B. storagecontoso2
- C. storagecontoso3
- D. storagecontoso4
- E. storagecontoso5

Hide Solution | Discussion 2

Correct Answer: *AB*

Example:

Storage Threat Detection is available for the Blob Service.



Reference:

https://azure.microsoft.com/en-us/blog/advanced-threat-protection-for-azure-storage-now-in-public-preview/

Question #8*Topic 6*

Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Active Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named

Developers. Subscription1 contains a resource group named Dev.

You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group.

Solution: On Subscription1, you assign the DevTest Labs User role to the Developers group.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 2

Correct Answer: *B*
The DevTest Labs User role lets you connect, start, restart, and shutdown your virtual machines in your Azure DevTest Labs.
References:
https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles#devtest-labs-user

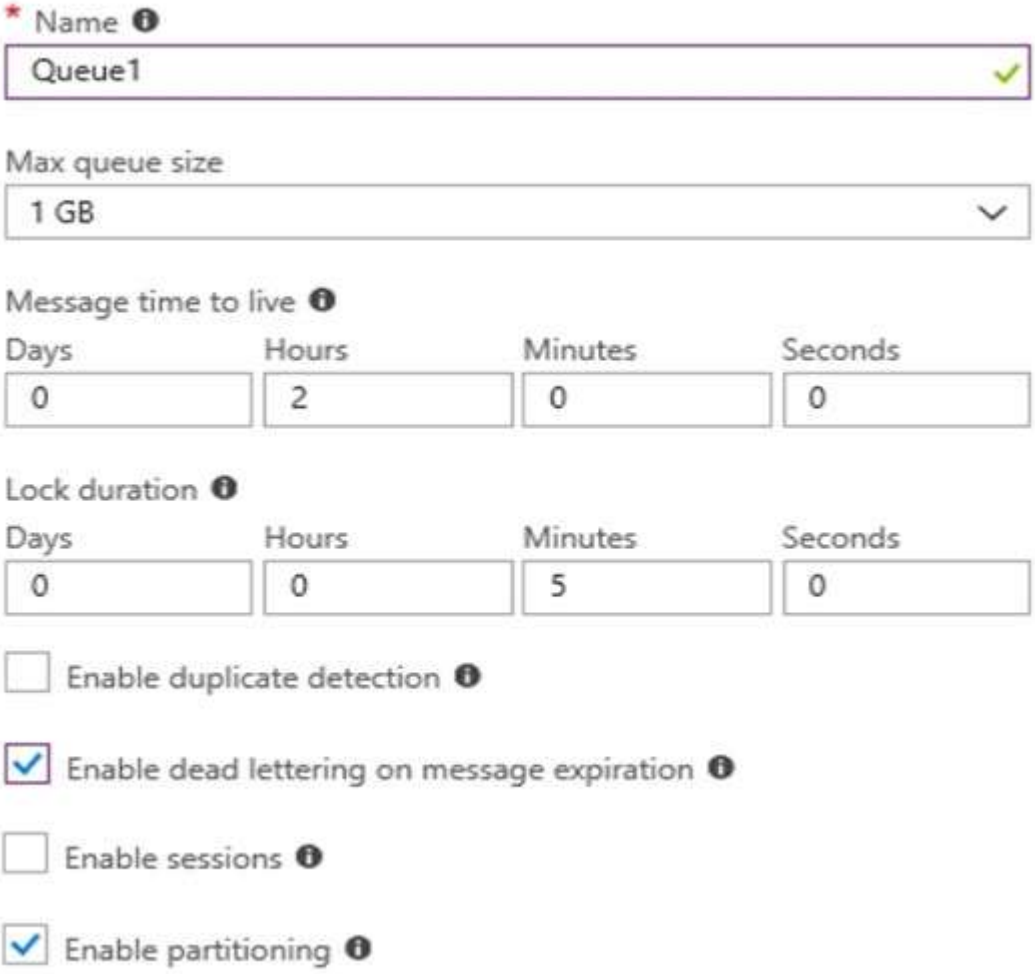
Question #9*Topic 6*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Active Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named
Developers. Subscription1 contains a resource group named Dev.
You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group.
Solution: On Dev, you assign the Logic App Contributor role to the Developers group.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 3

Correct Answer: *B*
The Logic App Contributor role lets you read, enable and disable logic app.
References:
https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles#logic-app-contributor

Question #10*Topic 6*
HOTSPOT -
You have an Azure Service Bus and a queue named Queue1. Queue1 is configured as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

If a message is written to Queue1 and is never read, the message will be

- deleted after 24 hours
- deleted after two hours and five minutes
- deleted after two hours
- retained until it is deleted manually

If a message is written to Queue1, and then read after one hour, the message will be

- deleted immediately
- deleted after five minutes
- deleted after one hour
- retained until it is deleted manually

Hide Solution | Discussion 4

Correct Answer:

Answer Area

If a message is written to Queue1 and is never read, the message will be

- deleted after 24 hours
- deleted after two hours and five minutes
- deleted after two hours
- retained until it is deleted manually (selected)

If a message is written to Queue1, and then read after one hour, the message will be

- deleted immediately (selected)
- deleted after five minutes
- deleted after one hour
- retained until it is deleted manually

Question #11*Topic 6*

Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Active Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named

Developers. Subscription1 contains a resource group named Dev.
You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group.
Solution: On Dev, you assign the Contributor role to the Developers group.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 3

Correct Answer: *A*
The Contributor role lets you manage everything except access to resources. It allows you to create and manage resources of all types, including creating Azure logic apps.
References:
https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles#contributor

Question #12*Topic 6*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
A company backs up data to on-premises servers at their main facility. The company currently has 30 TB of archived data that infrequently used. The facility has download speeds of 100 Mbps and upload speeds of 20 Mbps.
You need to securely transfer all backups to Azure Blob Storage for long-term archival. All backup data must be sent within seven days.
Solution: Backup data to local disks and use the Azure Import/Export service to send backups to Azure Blob Storage.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 6

Correct Answer: *A*

Question #13*Topic 6*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

A company backs up data to on-premises servers at their main facility. The company currently has 30 TB of archived data that infrequently used. The facility has download speeds of 100 Mbps and upload speeds of 20 Mbps.
You need to securely transfer all backups to Azure Blob Storage for long-term archival. All backup data must be sent within seven days.
Solution: Create a file share in Azure Files. Mount the file share to the server and upload the files to the file share. Transfer the files to Azure Blob Storage.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 2
Correct Answer: *B*

Question #14*Topic 6*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
A company backs up data to on-premises servers at their main facility. The company currently has 30 TB of archived data that infrequently used. The facility has download speeds of 100 Mbps and upload speeds of 20 Mbps.
You need to securely transfer all backups to Azure Blob Storage for long-term archival. All backup data must be sent within seven days.
Solution: Use the Set-AzureStorageBlobContent Azure PowerShell command to copy all backups asynchronously to Azure Blob Storage.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 1
Correct Answer: *B*

Question #15*Topic 6*
HOTSPOT -
You are developing a back-end Azure App Service that scales based on the number of messages contained in a Service Bus queue.
A rule already exists to scale up the App Service when the average queue length of unprocessed and valid queue messages is greater than 1000.

You need to add a new rule that will continuously scale down the App Service as long as the scale up condition is not met.
How should you configure the Scale rule? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Hide Solution Discussion 2

Answer Area

Correct Answer:

Box 1: Service bus queue -

You are developing a back-end Azure App Service that scales based on the number of messages contained in a Service Bus queue.

Box 2: ActiveMessage Count -

ActiveMessageCount: Messages in the queue or subscription that are in the active state and ready

for delivery.

Box 3: Count -

Box 4: Less than or equal to -
You need to add a new rule that will continuously scale down the App Service as long as the scale up condition is not met.

Box 5: Decrease count by -
References:
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-common-metrics#commonly-used-service-bus-metrics https://docs.microsoft.com/en-us/Azure/azure-monitor/platform/autoscale-best-practices https://docs.microsoft.com/en-us/azure/service-bus-messaging/message-counters

Question #16*Topic 6*
You have an on-premises network that contains a Hyper-V host named Host1. Host1 runs Windows Server 2016 and hosts 10 virtual machines that run Windows
Server 2016.
You plan to replicate the virtual machines to Azure by using Azure Site Recovery.
You create a Recovery Services vault named ASR1 and a Hyper-V site named Site1.
You need to add Host1 to ASR1.
What should you do?

- A. Download the installation file for the Azure Site Recovery Provider. Download the storage account key. Install the Azure Site Recovery Provider on each virtual machine and register the virtual machines.
- B. Download the installation file for the Azure Site Recovery Provider. Download the vault registration key. Install the Azure Site Recovery Provider on Host1 and register the server.
- C. Download the installation file for the Azure Site Recovery Provider. Download the storage account key. Install the Azure Site Recovery Provider on Host1 and register the server.
- D. Download the installation file for the Azure Site Recovery Provider. Download the vault registration key. Install the Azure Site Recovery Provider on each virtual machine and register the virtual machines.

Hide Solution Discussion 2
Correct Answer: *B*
References:
https://docs.microsoft.com/en-us/azure/site-recovery/hyper-v-azure-tutorial

Question #17*Topic 6*
You plan to migrate an on-premises Hyper-V environment to Azure by using Azure Site Recovery.
The Hyper-V environment is managed by using Microsoft
System Center Virtual Machine Manager (VMM).

The Hyper-V environment contains the virtual machines in the following table:

Name	Operating system (OS)	OS disk size	BitLocker Drive Encryption (BitLocker) enabled on OS disks.	Generation
DC1	Windows Server 2016	500 GB	No	2
FS1	Ubuntu 16.04 LTS	200 GB	No	2
CA1	Windows Server 2012 R2	1 TB	Yes	1
SQL1	Windows Server 2016	200 GB	No	1

Which virtual machine can be migrated by using Azure Site Recovery?

- A. FS1
- B. CA1
- C. DC1
- D. SQL1

Hide Solution | Discussion 4

Correct Answer: *D*

References:
https://docs.microsoft.com/en-us/azure/site-recovery/hyper-v-azure-support-matrix#azure-vm-requirements

Question #18*Topic 6*

DRAG DROP -

You have an on-premises network that you plan to connect to Azure by using a site-to-site VPN.

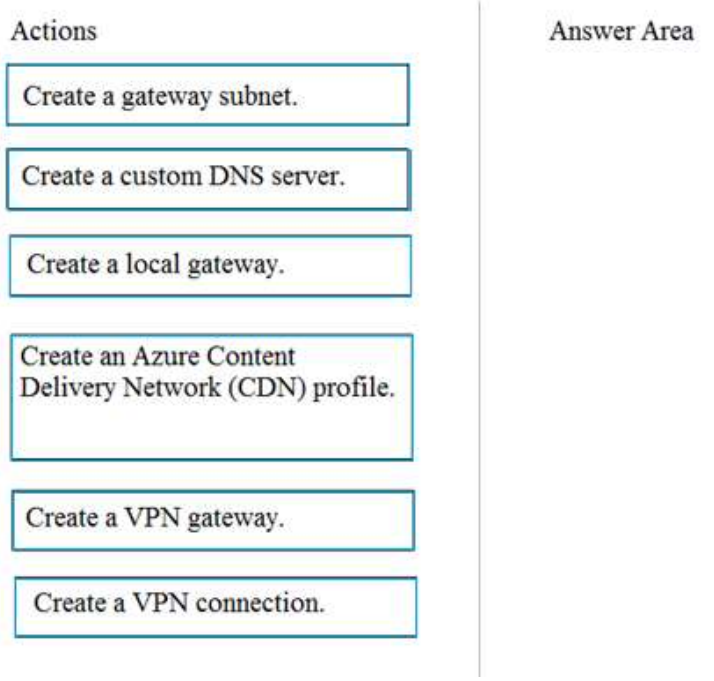
In Azure, you have an Azure virtual network named VNet1 that uses an address space of 10.0.0.0/16. VNet1 contains a subnet named Subnet1 that uses an address space of 10.0.0.0/24.

You need to create a site-to-site VPN to Azure.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

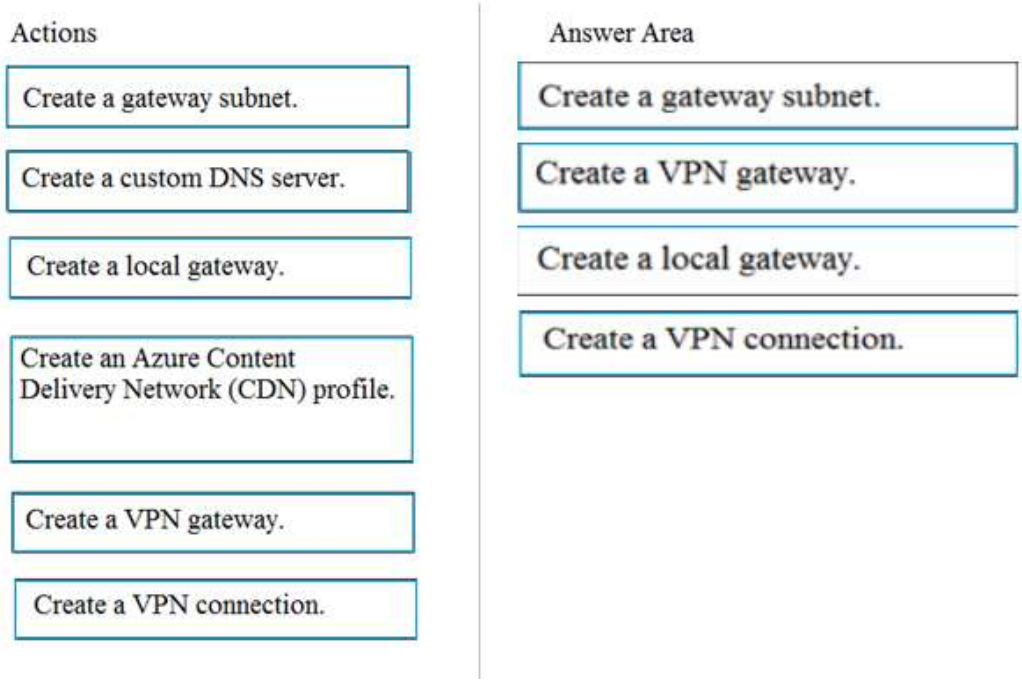
NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:



Hide Solution Discussion 1

Correct Answer:



Question #19*Topic 6*

You have an Azure subscription named Subscription1 that contains two Azure networks named VNet1 and VNet2. VNet1 contains a VPN gateway named
VPNGW1 that uses static routing. There is a site-to-site VPN connection between your on-premises network and VNet1.
On a computer named Client1 that runs Windows 10, you configure a point-to-site VPN connection to VNet1.
You configure virtual network peering between VNet1 and VNet2. You verify that you can connect to VNet2 from the on-premises network. Client1 is unable to connect to VNet2.
You need to ensure that you can connect Client1 to VNet2.
What should you do?

- A. Select Allow gateway transit on VNet1.
- B. Download and re-install the VPN client configuration package on Client1.
- C. Enable BGP on VPNGW1.
- D. Select Allow gateway transit on VNet2.

Hide Solution Discussion 3

Correct Answer: *B*

Point-to-Site certificate authentication connections require the following prerequisites:

☞ A Dynamic VPN gateway.

☞ The public key (.cer file) for a root certificate, which is uploaded to Azure. This key is considered a trusted certificate and is used for authentication.

☞ A client certificate generated from the root certificate, and installed on each client computer that will connect. This certificate is used for client authentication.

☞ A VPN client configuration package must be generated and installed on every client computer that connects. The client configuration package configures the native VPN client that's already on the operating system with the necessary information to connect to the VNet.

Reference:
https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-point-to-site-routing

Question #20*Topic 6*

HOTSPOT -

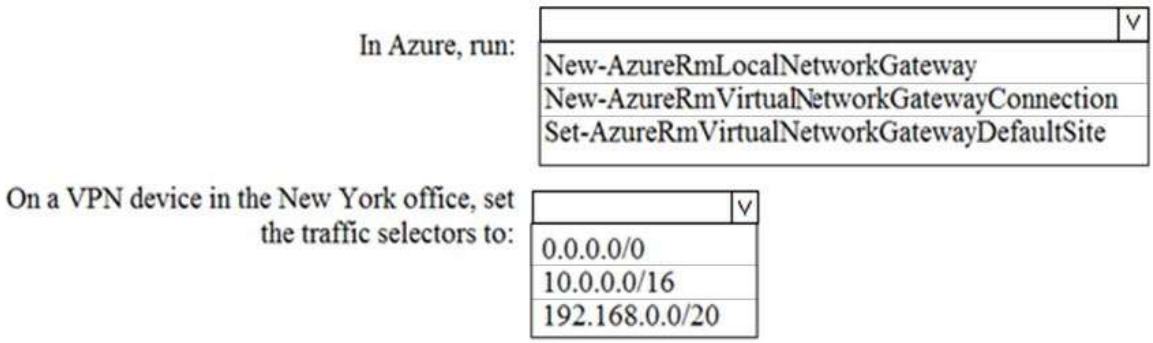
Your company has offices in New York and Los Angeles.
You have an Azure subscription that contains an Azure virtual network named VNet1. Each office has a site-to-site VPN connection to VNet1.
Each network uses the address spaces shown in the following table:

Location	IP address space
VNet1	192.168.0.0/20
New York	10.0.0.0/16
Los Angeles	10.10.0.0/16

You need to ensure that all Internet-bound traffic from VNet1 is routed through the New York

office.
What should you do? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

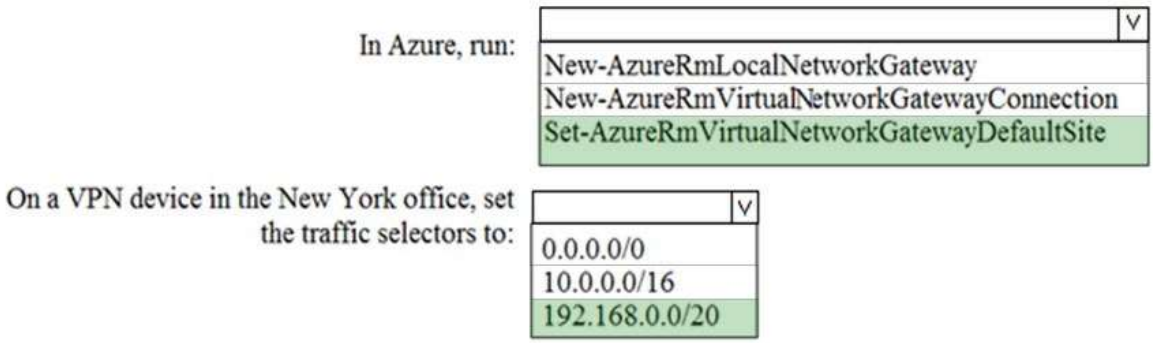
Answer Area



Hide Solution | Discussion 3

Correct Answer:

Answer Area



Question #21*Topic 6*
You have a Microsoft SQL Server Always On availability group on Azure virtual machines.
You need to configure an Azure internal load balancer as a listener for the availability group.
What should you do?

- A. Create an HTTP health probe on port 1433.
- B. Set Session persistence to Client IP.
- C. Set Session persistence to Client IP and protocol.
- D. Enable Floating IP.

Hide Solution Discussion 3

Correct Answer: *D*

References:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/sql/virtual-machines-windows-portal-sql-alwayson-int-listener

Question #22*Topic 6*

You set the multi-factor authentication status for a user named admin1@contoso.com to Enabled.
Admin1 accesses the Azure portal by using a web browser.
Which additional security verifications can Admin1 use when accessing the Azure portal?

- A. an app password, a text message that contains a verification code, and a verification code sent from the Microsoft Authenticator app
- B. a phone call, a text message that contains a verification code, and a notification or a verification code sent from the Microsoft Authenticator app
- C. a phone call, an email message that contains a verification code, and a text message that contains an app password
- D. an app password, a text message that contains a verification code, and a notification sent from the Microsoft Authenticator app

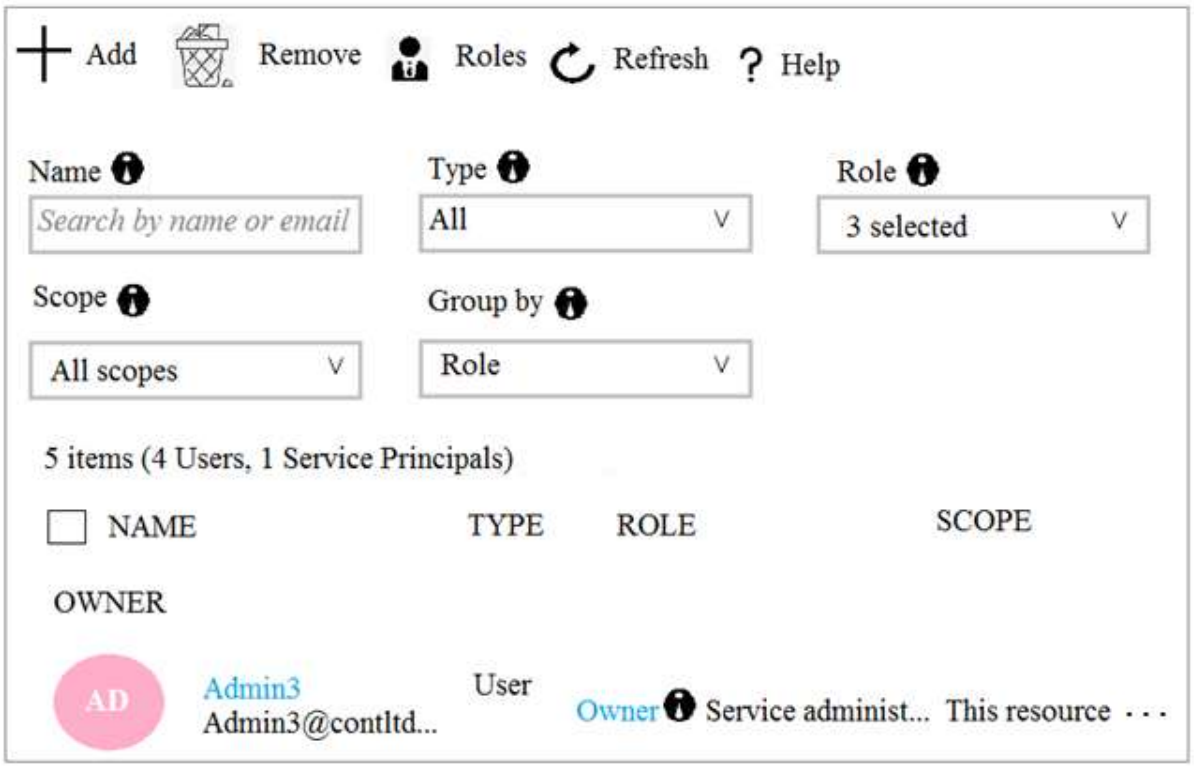
Hide Solution Discussion 3

Correct Answer: *B*

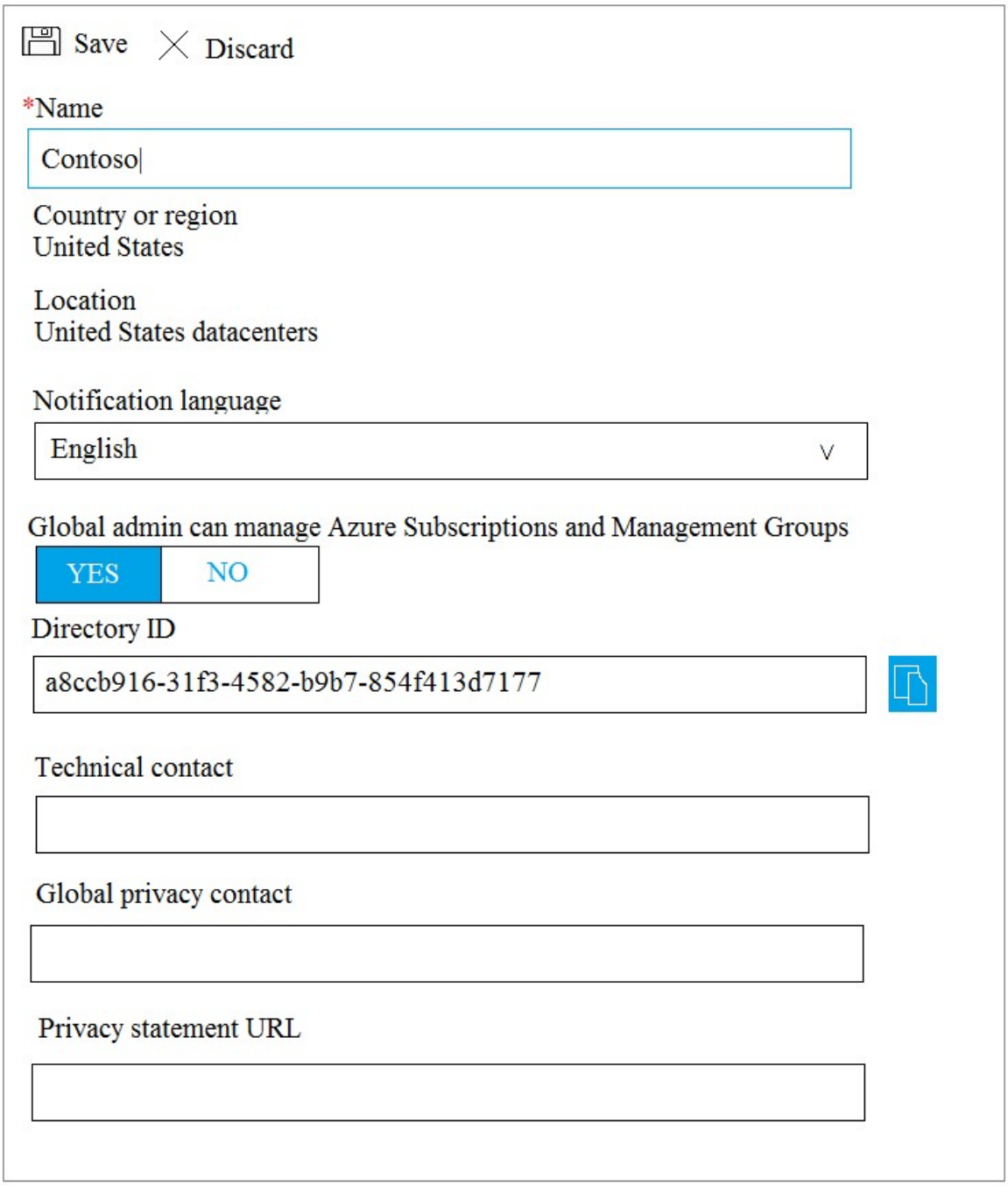
The Microsoft Authenticator app can help prevent unauthorized access to accounts and stop fraudulent transactions by pushing a notification to your smartphone or tablet. Users view the notification, and if it's legitimate, select Verify. Otherwise, they can select Deny.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-authentication-methods

Question #23*Topic 6*

HOTSPOT -
You have an Azure Active Directory (Azure AD) tenant that contains three global administrators named Admin1, Admin2, and Admin3.
The tenant is associated to an Azure subscription. Access control for the subscription is configured as shown in the Access control exhibit. (Click the Exhibit tab.)



You sign in to the Azure portal as Admin1 and configure the tenant as shown in the Tenant exhibit. (Click the Exhibit tab.)



For each of the following statement, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Admin1 can add Admin2 as an owner of the subscription.	○	○
Admin2 can add Admin1 as an owner of the subscription.	○	○
Admin2 can create a resource group in the subscription.	○	○

Hide Solution | Discussion 7

Correct Answer:

Answer Area

Statements	Yes	No
Admin1 can add Admin2 as an owner of the subscription.	●	○
Admin2 can add Admin1 as an owner of the subscription.	○	●
Admin2 can create a resource group in the subscription.	○	●

Question #24*Topic 6*

You have an Azure Active Directory (Azure AD) tenant.

All administrators must enter a verification code to access the Azure portal.

You need to ensure that the administrators can access the Azure portal only from your on-premises network.

What should you configure?

- A. the default for all the roles in Azure AD Privileged Identity Management
- B. an Azure AD Identity Protection user risk policy
- C. an Azure AD Identity Protection sign-in risk policy
- D. the multi-factor authentication service settings

Hide Solution | Discussion 5

Correct Answer: *D*
References:
https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-mfa-mfasettings

Question #25*Topic 6*
You have an Azure subscription named Subscription1 that contains a virtual network named VNet1. VNet1 is in a resource group named RG1.
Subscription1 has a user named User1. User1 has the following roles:

- Reader
- Security Admin
- Security Reader

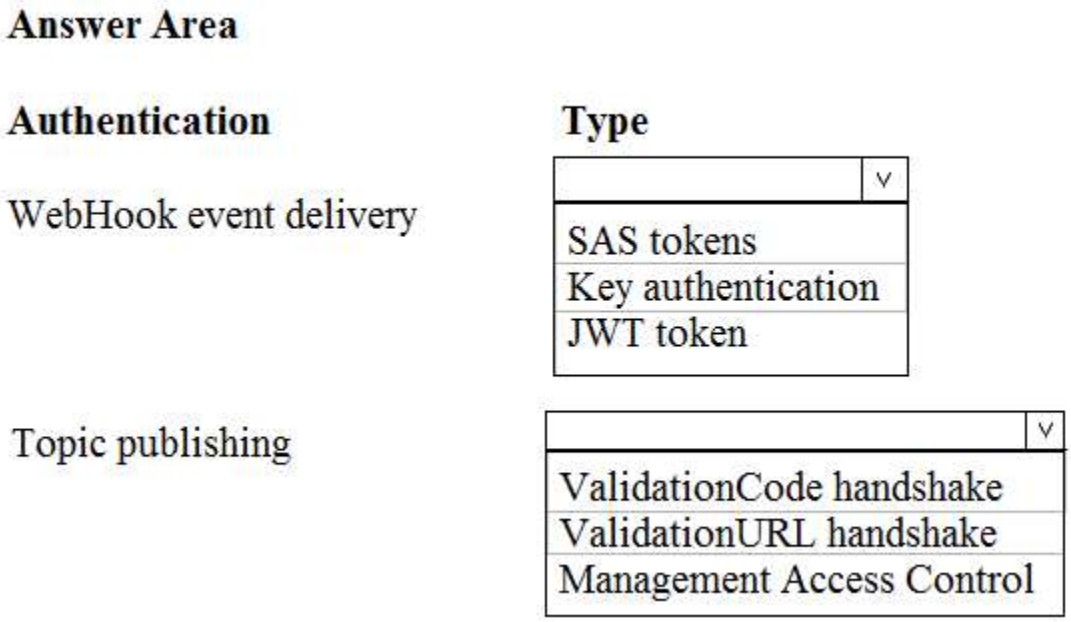
You need to ensure that User1 can assign the Reader role for VNet1 to other users.
What should you do?

- A. Assign User1 the Owner role for VNet1.
- B. Assign User1 the Network Contributor role for VNet1.
- C. Remove User1 from the Security Reader and Reader roles for Subscription1. Assign User1 the Contributor role for Subscription1.
- D. Remove User1 from the Security Reader and Reader roles for Subscription1.

Hide Solution Discussion 2
Correct Answer: *A*

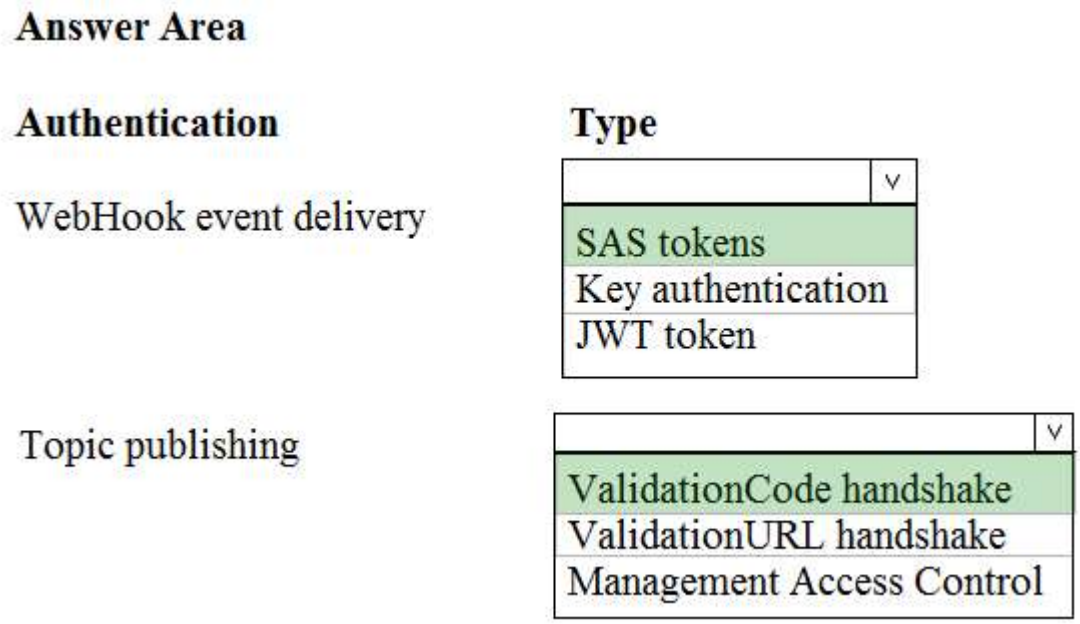
Question #26*Topic 6*
HOTSPOT -
You are creating an app that uses Event Grid to connect with other services. Your appג€™s event data will be sent to a serverless function that checks compliance.
This function is maintained by your company.
You write a new event subscription at the scope of your resource. The event must be invalidated after a specific period of time.
You need to configure Event Grid to ensure security.
What should you implement? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:



Hide Solution | Discussion 2

Correct



Answer:

References:
https://docs.microsoft.com/en-us/azure/event-grid/security-authentication

Question #27*Topic 6*

You are building a custom Azure function app to connect to Azure Event Grid.
You need to ensure that resources are allocated dynamically to the function app. Billing must be

based on the executions of the app.
What should you configure when you create the function app?

- A. the Windows operating system and the App Service plan hosting plan
- B. the Docker container and an App Service plan that uses the B1 pricing tier
- C. the Windows operating system and the Consumption plan hosting plan
- D. the Docker container and an App Service plan that uses the S1 pricing tier

Hide Solution Discussion 3

Correct Answer: *C*
References:
https://docs.microsoft.com/en-us/azure/azure-functions/functions-scale

Question #28*Topic 6*
You have an Azure Service Bus.
You need to implement a Service Bus queue that guarantees first-in-first-out (FIFO) delivery of messages.
What should you do?

- A. Enable partitioning
- B. Enable duplicate detection
- C. Set the Lock Duration setting to 10 seconds
- D. Enable sessions
- E. Set the Max Size setting of the queue to 5 GB

Hide Solution Discussion 2

Correct Answer: *D*
References:
https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-azure-and-service-bus-queues-compared-contrasted

Question #29*Topic 6*
You have an Azure subscription that contains a policy-based virtual network gateway named GW1 and a virtual network named VNet1.
You need to ensure that you can configure a point-to-site connection from an on-premises computer to VNet1.
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

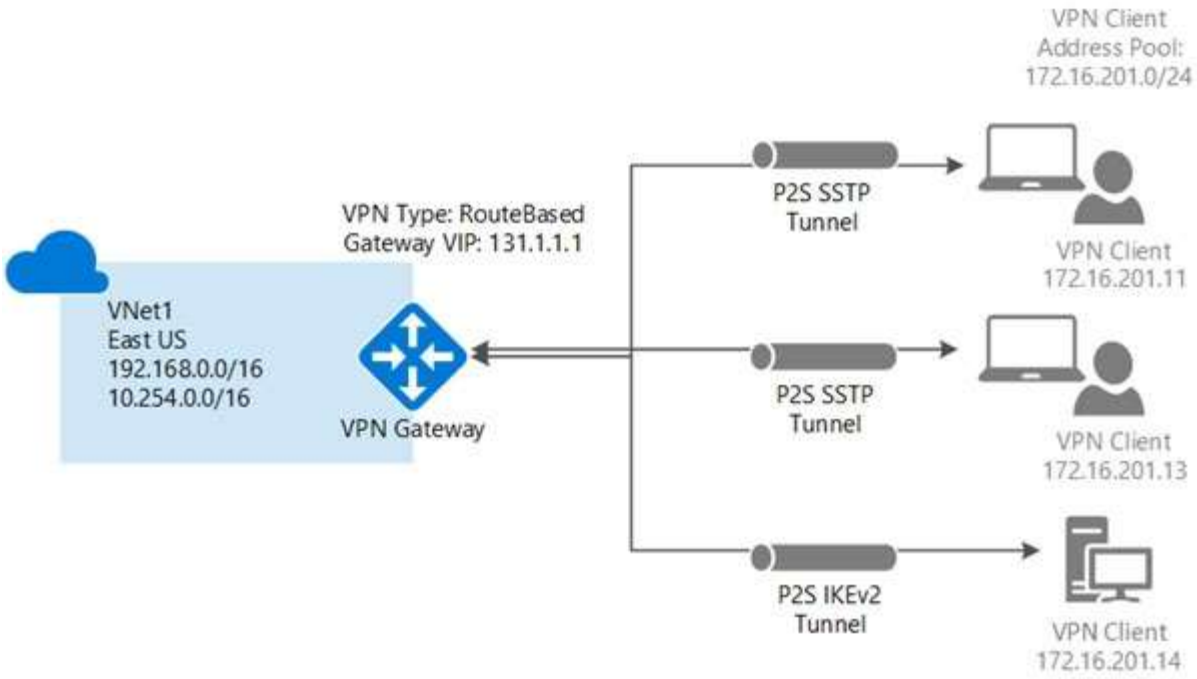
- A. Add a service endpoint to VNet1.
- B. Add a public IP address space to VNet1.
- C. Create a route-based virtual network gateway.
- D. Reset GW1.

- E. Delete GW1.
- F. Add a connection to GW1.

Hide Solution | Discussion 2

Correct Answer: *CE*

Need a RouteBased VPN gateway.

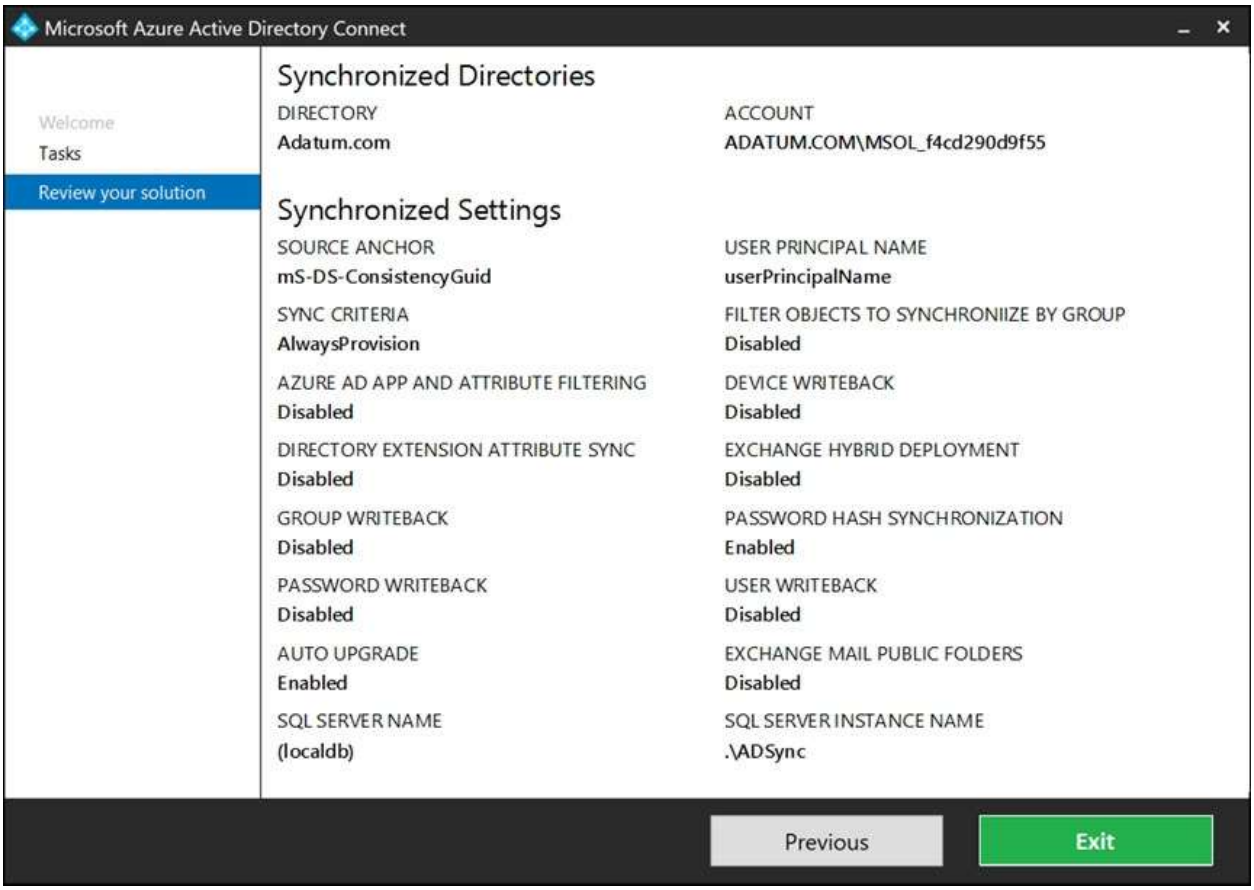


References:
https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/vpn-gateway/vpn-gateway-howto-point-to-site-resource-manager-portal.md

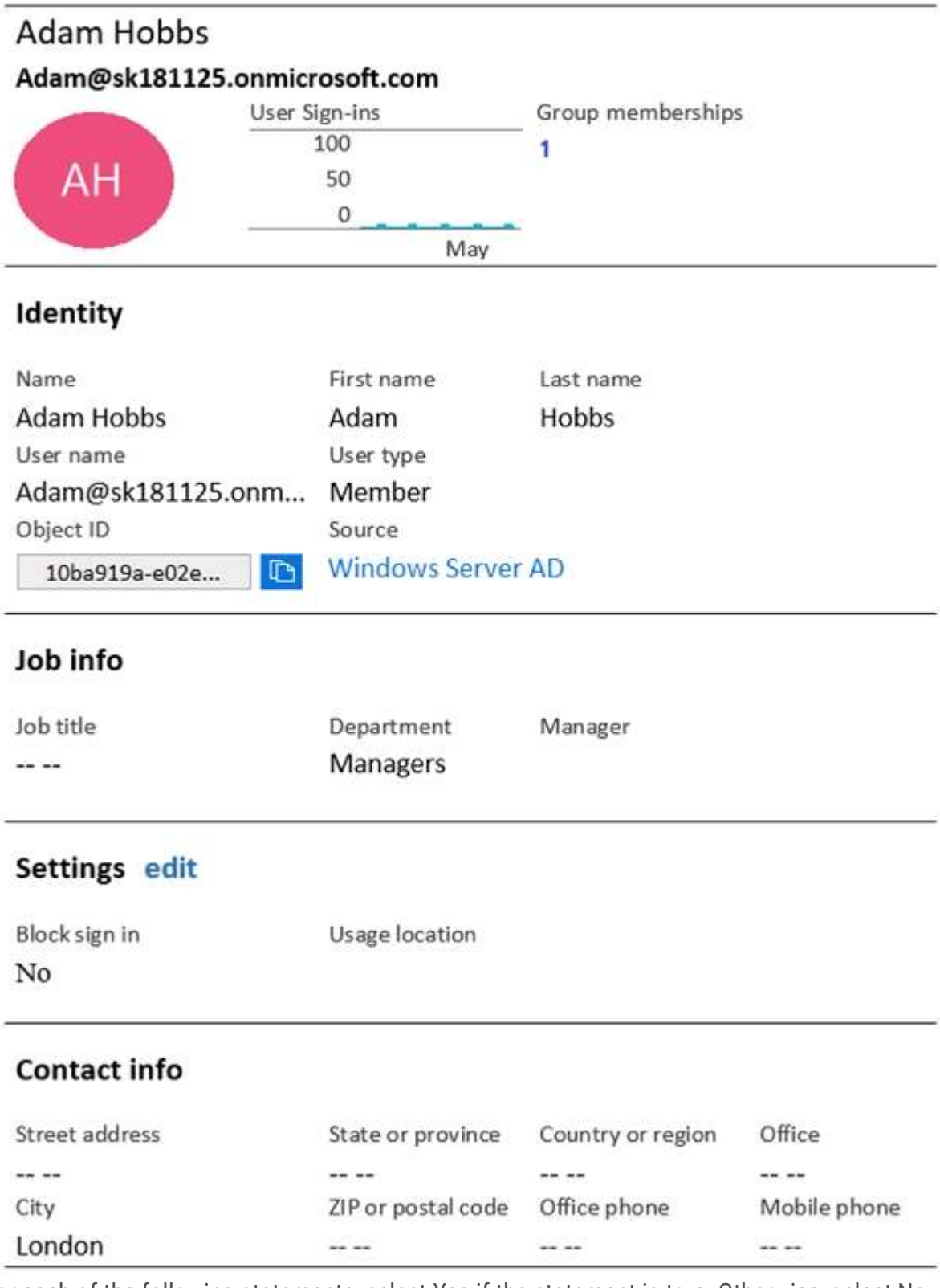
Question #30*Topic 6*

HOTSPOT -

Your network contains an Active Directory domain that is synced to Azure Active Directory (Azure AD) as shown in the following exhibit.



You have a user account configured as shown in the following exhibit.



For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
From the Azure portal, an administrator can reset the password of Adam Hobbs.	○	○
From the Azure portal, an administrator can modify the job title for the user account of Adam Hobbs.	○	○
From the Azure portal, an administrator can modify the usage location for the user account of Adam Hobbs.	○	○

Hide Solution | Discussion 6

Correct Answer:

Answer Area

Statements	Yes	No
From the Azure portal, an administrator can reset the password of Adam Hobbs.	○	○
From the Azure portal, an administrator can modify the job title for the user account of Adam Hobbs.	○	○
From the Azure portal, an administrator can modify the usage location for the user account of Adam Hobbs.	○	○

Box 1: No -
Password writeback is disabled.
Note: Having a cloud-based password reset utility is great but most companies still have an on-premises directory where their users exist. How does Microsoft support keeping traditional on-premises Active Directory (AD) in sync with password changes in the cloud? Password writeback is a feature enabled with Azure
AD Connect that allows password changes in the cloud to be written back to an existing on-premises directory in real time.

Box 2: No -

Box 3: Yes -

Yes, there is an Edit link for Location Info.
References:
https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-sspr-writeback

Question #31*Topic 6*
You create a new Azure subscription. You create a resource group named RG1. In RG1, you create the resources shown in the following table.

Name	Type
VNET1	Virtual network
VM1	Virtual machine
GWSN1	Gateway subnet
VPNGW1	Virtual network gateway

You need to configure an encrypted tunnel between your on-premises network and VNET1.
Which two additional resources should you create in Azure? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. a site-to-site connection
- B. a VPN gateway
- C. a VNet-to- VNet connection
- D. a local network gateway
- E. a point-to-site configuration

Hide Solution | Discussion 6

Correct Answer: *BD*
A Site-to-Site VPN gateway connection is used to connect your on-premises network to an Azure virtual network over an IPsec/IKE (IKEv1 or IKEv2) VPN tunnel.
This type of connection requires a VPN device, a local network gateway, located on-premises that has an externally facing public IP address assigned to it.
Finally, create a Site-to-Site VPN connection between your virtual network gateway and your on-premises VPN device.
References:
https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-portal

Question #32*Topic 6*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription.
You have an on-premises file server named Server1 that runs Windows Server 2019.

You manage Server1 by using Windows Admin Center.
You need to ensure that if Server1 fails, you can recover the data from Azure.
Solution: From the Azure portal, you create a Recovery Services vault. On VM1, you install the Azure Backup agent and you schedule a backup.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 4

Correct Answer: *B*
Instead use Azure Storage Sync service and configure Azure File.
Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share.
References:
https://docs.microsoft.com/en-us/azure/storage/files/storage-files-introduction

Question #33*Topic 6*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription.
You have an on-premises file server named Server1 that runs Windows Server 2019.
You manage Server1 by using Windows Admin Center.
You need to ensure that if Server1 fails, you can recover Server1 files from Azure.
Solution: You create a Recovery Services vault and configure a backup by using Windows Server Backup.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 2

Correct Answer: *B*
Instead use Azure Storage Sync service and configure Azure File.
Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share.
References:
https://docs.microsoft.com/en-us/azure/storage/files/storage-files-introduction

Question #34*Topic 6*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription.
You have an on-premises file server named Server1 that runs Windows Server 2019.
You manage Server1 by using Windows Admin Center.
You need to ensure that if Server1 fails, you can recover Server1 files from Azure.
Solution: You create an Azure Storage account and an Azure Storage Sync service. You configure Azure File Sync for Server1.
Does this meet the goal?

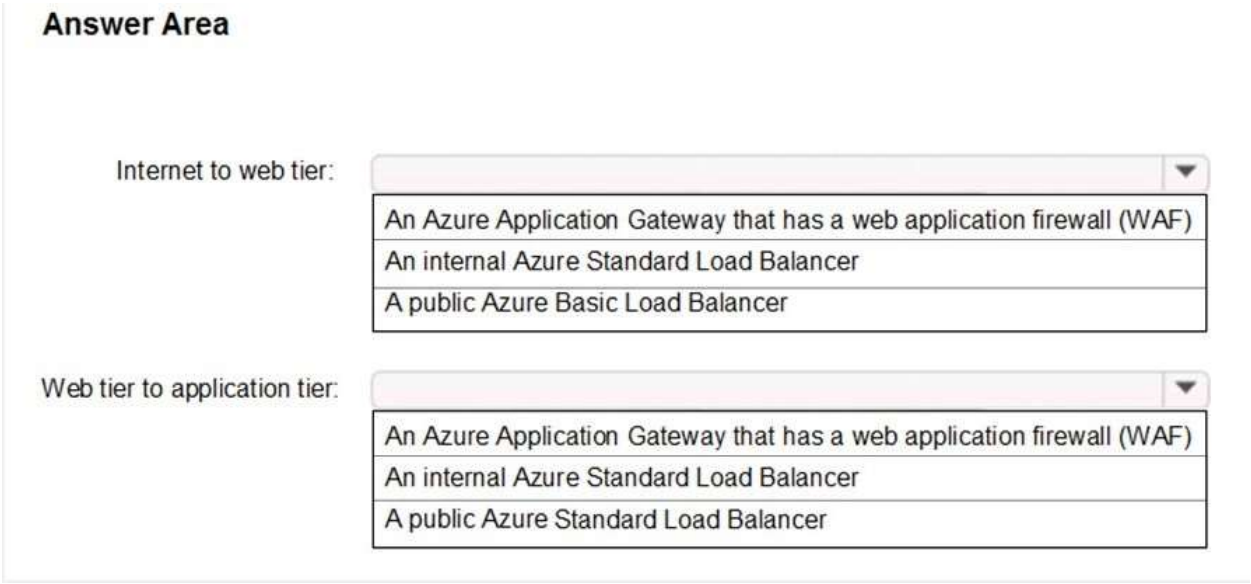
- A. Yes
- B. No

Hide Solution Discussion 3
Correct Answer: *A*
Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share.
Azure Files offers fully managed file shares in the cloud that are accessible via the industry standard Server Message Block (SMB) protocol. Azure file shares can be mounted concurrently by cloud or on-premises deployments of Windows, Linux, and macOS. Additionally, Azure file shares can be cached on Windows
Servers with Azure File Sync for fast access near where the data is being used.
Azure file shares can be used to:
Replace or supplement on-premises file servers:
Azure Files can be used to completely replace or supplement traditional on-premises file servers or NAS devices. Popular operating systems such as Windows, macOS, and Linux can directly mount Azure file shares wherever they are in the world. Azure file shares can also be replicated with Azure File Sync to Windows
Servers, either on-premises or in the cloud, for performance and distributed caching of the data where it's being used.
References:
https://docs.microsoft.com/en-us/azure/storage/files/storage-files-introduction
https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide?tabs=azure-portal

Question #35*Topic 6*
HOTSPOT -
You have an Azure subscription.
You plan to deploy an app that has a web front end and an application tier.

You need to recommend a load balancing solution that meets the following requirements:
☞ Internet to web tier:
- Provides URL-based routing
- Supports connection draining
- Prevents SQL injection attacks
☞ Web tier to application tier:
- Provides port forwarding
- Supports HTTPS health probes
- Supports an availability set as a backend pool
Which load balancing solution should you recommend for each tier? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

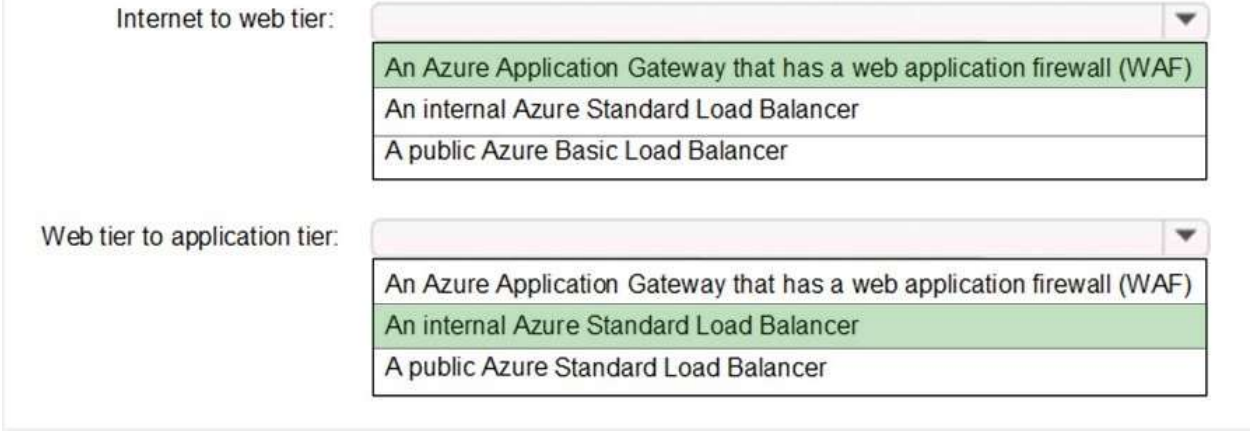
Answer Area



Hide Solution | Discussion 3

Correct Answer:

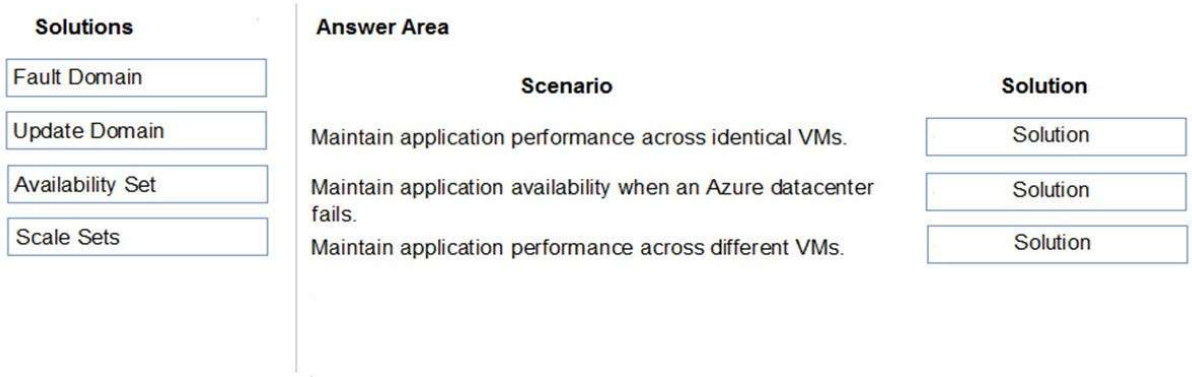
Answer Area



Box 1: An Azure Application Gateway that has a web application firewall (WAF)
Azure Application Gateway offers a web application firewall (WAF) that provides centralized protection of your web applications from common exploits and vulnerabilities. Web applications are increasingly targeted by malicious attacks that exploit commonly known vulnerabilities. SQL injection and cross-site scripting are among the most common attacks.
Application Gateway operates as an application delivery controller (ADC). It offers Secure Sockets Layer (SSL) termination, cookie-based session affinity, round- robin load distribution, content-based routing, ability to host multiple websites, and security enhancements.
Box 2: An internal Azure Standard Load Balancer
The internet to web tier is the public interface, while the web tier to application tier should be internal.
Note: When using load-balancing rules with Azure Load Balancer, you need to specify a health probes to allow Load Balancer to detect the backend endpoint status.
Health probes support the TCP, HTTP, HTTPS protocols.
Reference:
https://docs.microsoft.com/en-us/azure/application-gateway/waf-overview
https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-custom-probe-overview

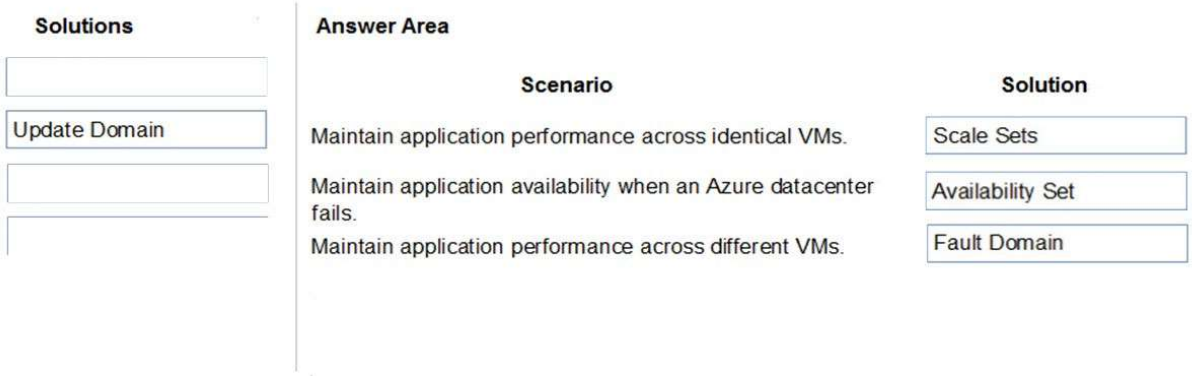
Question #36*Topic 6*
DRAG DROP -
You have virtual machines (VMs) that run a mission-critical application.
You need to ensure that the VMs never experience down time.
What should you recommend? To answer, drag the appropriate solutions to the correct scenarios.
Each solution may be used once, more than once, or not at all.
You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.

Select and Place:



Hide Solution Discussion 8

Correct Answer:



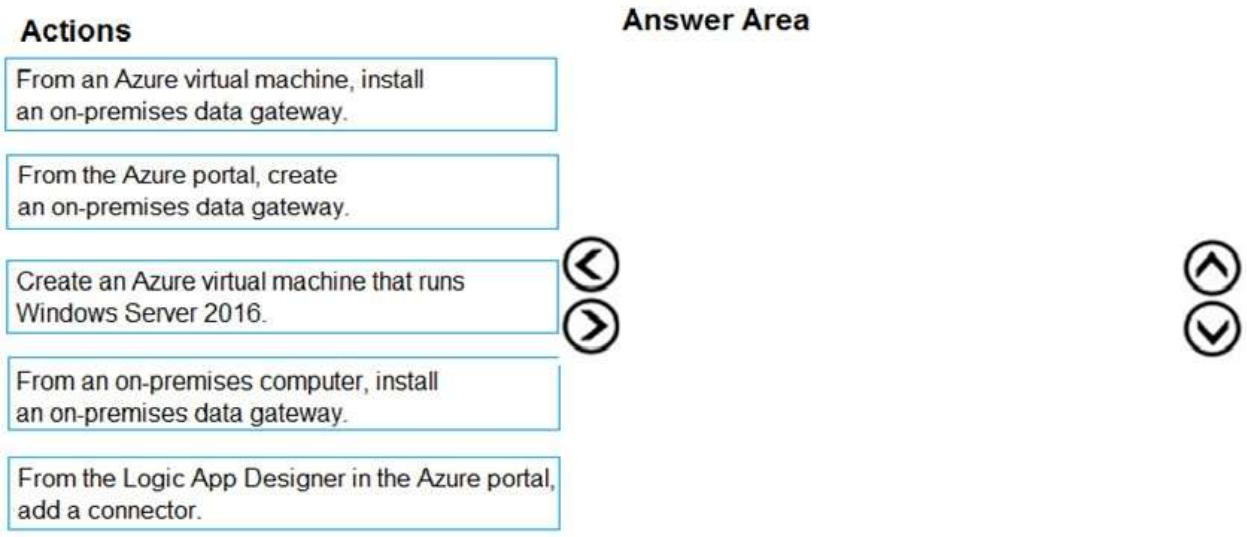
Box 1: Scale set -
A virtual machine scale set allows you to deploy and manage a set of identical, autoscaling virtual machines.

Box 2: Availability Set -
An Availability Set is a logical grouping capability for isolating VM resources from each other when they're deployed. Azure makes sure that the VMs you place within an Availability Set run across multiple physical servers, compute racks, storage units, and network switches. If a hardware or software failure happens, only a subset of your VMs are impacted and your overall solution stays operational. Availability Sets are essential for building reliable cloud solutions.

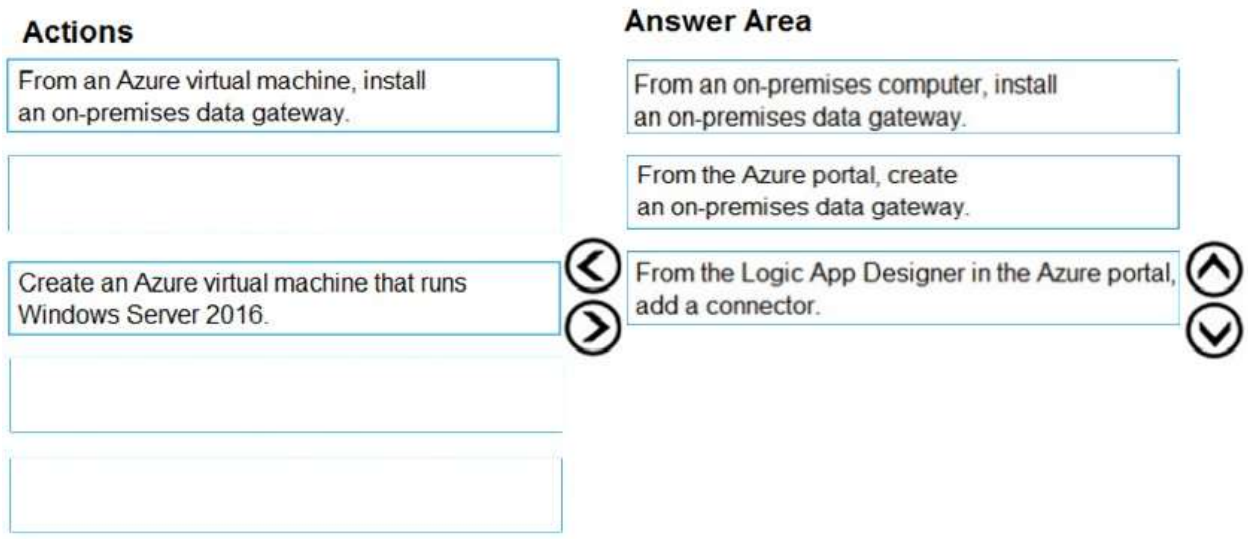
Box 3: Fault domain -
A fault domain is a logical group of underlying hardware that share a common power source and network switch, similar to a rack within an on-premises datacenter. As you create VMs within an availability set, the Azure platform automatically distributes your VMs across these fault domains. This approach limits the impact of potential physical hardware failures, network outages, or power interruptions.
Incorrect Answers:
An update domain is a group of VMs and underlying physical hardware that can be rebooted at the

same time.
References:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-create-vmss
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets

Question #37*Topic 6*
DRAG DROP -
You have an on-premises network that includes a Microsoft SQL Server instance named SQL1.
You create an Azure Logic App named App1.
You need to ensure that App1 can query a database on SQL1.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.
Select and Place:



Hide Solution Discussion 3
Correct Answer:



References:
https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-connection

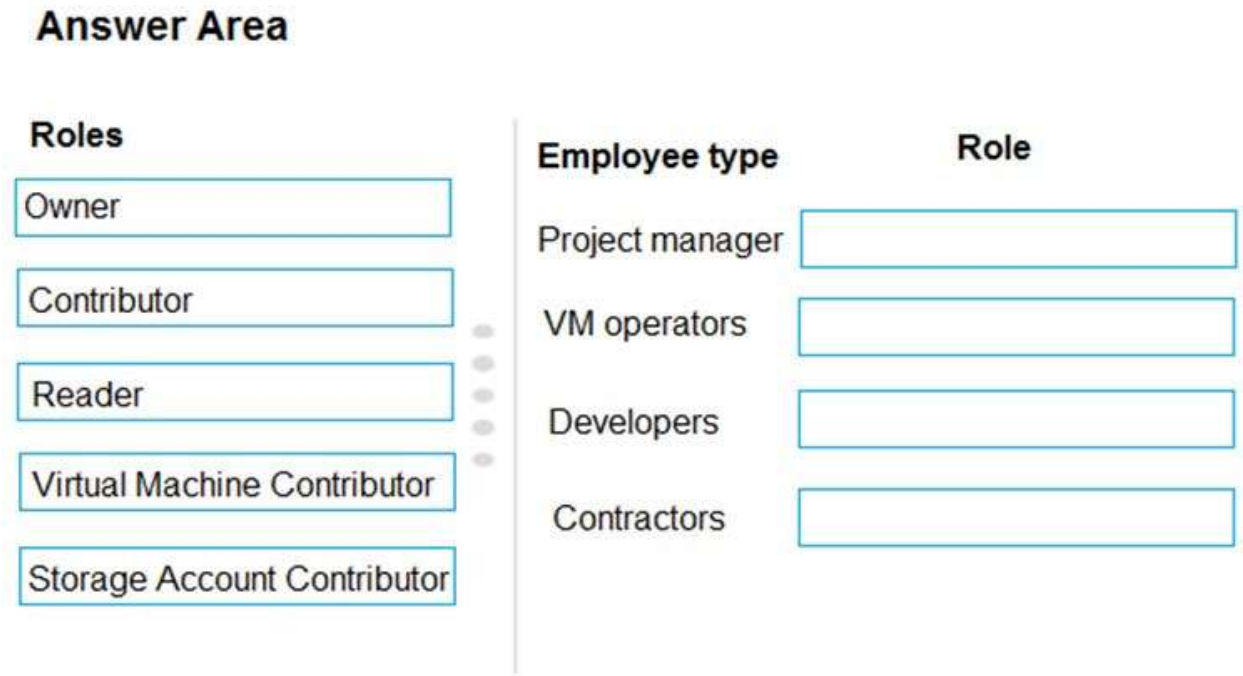
Question #38*Topic 6*
Note: This question is part of series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription.
You have an on-premises file server named Server1 that runs Windows Server 2019.
You manage Server1 by using Windows Admin Center.
You need to ensure that if Server1 fails, you can recover Server1 files from Azure.
Solution: You register Windows Admin Center in Azure and configure Azure Backup.
Does this meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 6
Correct Answer: *B*
Instead use Azure Storage Sync service and configure Azure File.
Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share.
Reference:
https://docs.microsoft.com/en-us/azure/storage/files/storage-files-introduction

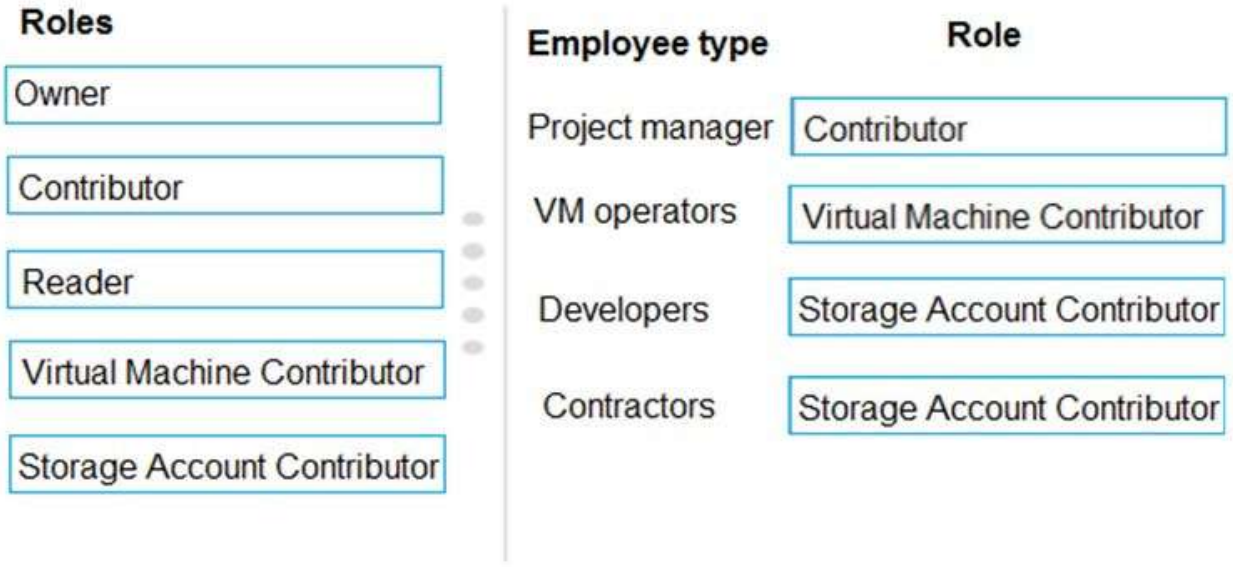
Question #39*Topic 6*

DRAG DROP -
You are designing a solution to secure a company¡€™s Azure resources. The environment hosts 10 teams. Each team manages a project and has a project manager, a virtual machine (VM) operator, developers, and contractors.
Project managers must be able to manage everything except access and authentication for users. VM operators must be able to manage VMs, but not the virtual network or storage account to which they are connected. Developers and contractors must be able to manage storage accounts.
You need to recommend roles for each member.
What should you recommend? To answer, drag the appropriate roles to the correct employee types. Each role may be used once, more than once, or not at all.
You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.
Select and Place:



Hide Solution Discussion 2
Correct Answer:

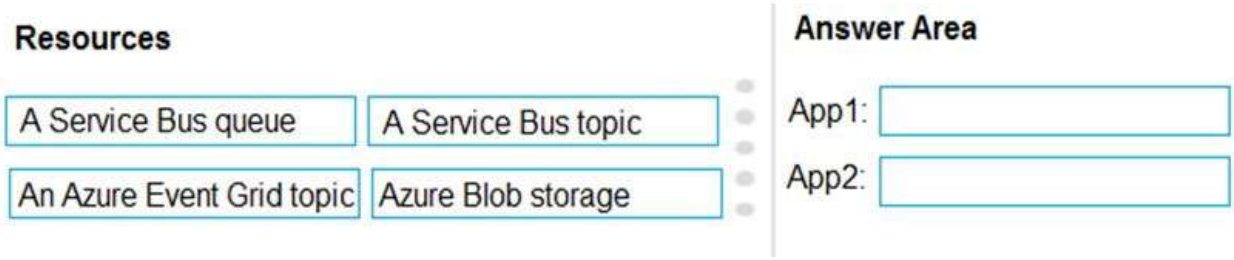
Answer Area



Question #40*Topic 6*
DRAG DROP -
You have an Azure subscription that contains an Azure Service Bus named Bus1.
Your company plans to deploy two Azure web apps named App1 and App2. The web app will create messages that have the following requirements:

- Each message created by App1 must be consumed by only a single consumer.
- Each message created by App2 will consumed by multiple consumers.

Which resource should you create for each web app? To answer, drag the appropriate resources to the correct web apps. Each resource may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
Select and Place:



Hide Solution Discussion 2
Correct Answer:

Question #41*Topic 6*
You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Address space
VNET1	Virtual network	10.1.1.0/24
Subnet1	Subnet	10.1.1.0/24
VM1	Virtual machine	*Not applicable*

Subnet1 is on VNET1. VM1 connects to Subnet1.
You plan to create a virtual network gateway on VNET1.
You need to prepare the environment for the planned virtual network gateway.
What are two ways to achieve this goal? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. Modify the address space used by VNET1.
- B. Modify the address space used by Subnet1.
- C. Create a subnet named GatewaySubnet on VNET1.
- D. Create a local network gateway.
- E. Delete Subnet1.

Hide Solution Discussion 10
Correct Answer: *AE*

Question #42*Topic 6*
A company hosts virtual machines (VMs) in an on-premises datacenter and in Azure. The on-premises and Azure-based VMs communicate using ExpressRoute.
The company wants to be able to continue regular operations if the ExpressRoute connection fails. Failover connections must use the Internet and must not require Multiprotocol Label Switching (MPLS) support.
You need to recommend a solution that provides continued operations.
What should you recommend?

- A. Set up a second ExpressRoute connection.
- B. Increase the bandwidth of the existing ExpressRoute connection.
- C. Increase the bandwidth for the on-premises internet connection.

- D. Set up a VPN connection.

Hide Solution Discussion 2

Correct Answer: *D*

References:
https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/expressroute-vpn-failover

Question #43*Topic 6*

You have a web app named WebApp1 that uses an Azure App Service plan named Plan1. Plan1 uses the D1 pricing tier and has an instance count of 1.
You need to ensure that all connections to WebApp1 use HTTPS.
What should you do first?

- A. Scale up Plan1.
- B. Modify the connection strings for WebApp1.
- C. Scale out Plan1.
- D. Disable anonymous access to WebApp1.

Hide Solution Discussion 3

Correct Answer: *A*

The D1 (Shared) pricing tier does not support HTTPS.

Question #44*Topic 6*

You have an Azure subscription that contains an Azure Service Fabric cluster and a Service Fabric application named FabricApp.
You develop and package a Service Fabric application named AppPackage. AppPackage is saved in a compressed folder named AppPackage.zip.
You upload AppPackage.zip to an external store.
You need to register AppPackage in the Azure subscription.
What should you do first?

- A. Run the New-ServiceFabricApplication cmdlet.
- B. Repackage the application in a file named App.sfpkg.
- C. Create a new Service Fabric cluster.
- D. Copy AppPackage.zip to a blob storage account.

Hide Solution Discussion 1

Correct Answer: *B*

References:
https://docs.microsoft.com/en-us/azure/service-fabric/service-fabric-package-apps#create-an-sfpkg

Question #45*Topic 6*

HOTSPOT -
Your company runs several Windows and Linux virtual machines (VMs).
You must design a solution that implements data privacy, compliance, and data sovereignty for all storage uses in Azure. You plan to secure all Azure storage accounts by using Role-Based Access Controls (RBAC) and Azure Active Directory (Azure AD).
You need to secure the data used by the VMs.
Which solution should you use? To answer, select the appropriate solutions in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

VM data	Solution
Boot and data volume	Azure Storage Service Encryption Azure Disk Encryption Azure Information Protection Azure AD
Data written to Azure Storage	Azure Storage Service Encryption Azure Disk Encryption Shared Access Signature (SAS) Network Security Group (NSG)
Encryption keys and secrets	Azure Storage Service Encryption Azure Disk Encryption Azure Key Vault Azure Security Center

Hide Solution | Discussion 2

Correct Answer:

Answer Area

VM data	Solution
Boot and data volume	Azure Storage Service Encryption **Azure Disk Encryption** Azure Information Protection Azure AD
Data written to Azure Storage	**Azure Storage Service Encryption** Azure Disk Encryption Shared Access Signature (SAS) Network Security Group (NSG)
Encryption keys and secrets	Azure Storage Service Encryption Azure Disk Encryption **Azure Key Vault** Azure Security Center

References:
https://docs.microsoft.com/en-us/azure/security/security-storage-overview

Question #46*Topic 6*

You develop an entertainment application where users can buy and trade virtual real estate. The application must scale to support thousands of users.
The current architecture includes five Azure virtual machines (VM) that connect to an Azure SQL Database for account information and Azure Table Storage for backend services. A user interacts with these components in the cloud at any given time.

☞ Routing Service ג€" Routes a request to the appropriate service and must not persist data across sessions.

☞ Account Service ג€" Stores and manages all account information and authentication and requires data to persist across sessions

☞ User Service ג€" Stores and manages all user information and requires data to persist across sessions.

☞ Housing Network Service ג€" Stores and manages the current real-estate economy and requires data to persist across sessions.

☞ Trade Service ג€" Stores and manages virtual trade between accounts and requires data to

persist across sessions.
Due to volatile user traffic, a microservices solution is selected for scale agility.
You need to migrate to a distributed microservices solution on Azure Service Fabric.
Solution: Create a Service Fabric Cluster with a stateful Reliable Service for each component.
Does the solution meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 3

Correct Answer: *B*

Question #47*Topic 6*

You develop an entertainment application where users can buy and trade virtual real estate. The application must scale to support thousands of users.
The current architecture includes five Azure virtual machines (VM) that connect to an Azure SQL Database for account information and Azure Table Storage for backend services. A user interacts with these components in the cloud at any given time.
☞ Routing Service ג€" Routes a request to the appropriate service and must not persist data across sessions.
☞ Account Service ג€" Stores and manages all account information and authentication and requires data to persist across sessions
☞ User Service ג€" Stores and manages all user information and requires data to persist across sessions.
☞ Housing Network Service ג€" Stores and manages the current real-estate economy and requires data to persist across sessions.
Trade Service ג€" Stores and manages virtual trade between accounts and requires data to persist across sessions.
▪
Due to volatile user traffic, a microservices solution is selected for scale agility.
You need to migrate to a distributed microservices solution on Azure Service Fabric.
Solution: Create a Service Fabric Cluster with a stateless Reliable Service for Routing Service. Create stateful Reliable Services for all other components.
Does the solution meet the goal?

- A. Yes
- B. No

Hide Solution Discussion 4

Correct Answer: *A*

Question #48*Topic 6*

You develop an entertainment application where users can buy and trade virtual real estate. The application must scale to support thousands of users.
The current architecture includes five Azure virtual machines (VM) that connect to an Azure SQL Database for account information and Azure Table Storage for backend services. A user interacts with these components in the cloud at any given time.
☞ Routing Service ג€" Routes a request to the appropriate service and must not persist data across sessions.
☞ Account Service ג€" Stores and manages all account information and authentication and requires data to persist across sessions
☞ User Service ג€" Stores and manages all user information and requires data to persist across sessions.
☞ Housing Network Service ג€" Stores and manages the current real-estate economy and requires data to persist across sessions.
☞ Trade Service ג€" Stores and manages virtual trade between accounts and requires data to persist across sessions.
Due to volatile user traffic, a microservices solution is selected for scale agility.
You need to migrate to a distributed microservices solution on Azure Service Fabric.
Solution: Create a Service Fabric Cluster with a stateful Reliable Service for Routing Service.
Deploy a Guest Executable to Service Fabric for each component.
Does the solution meet the goal?

- A. Yes
- B. No

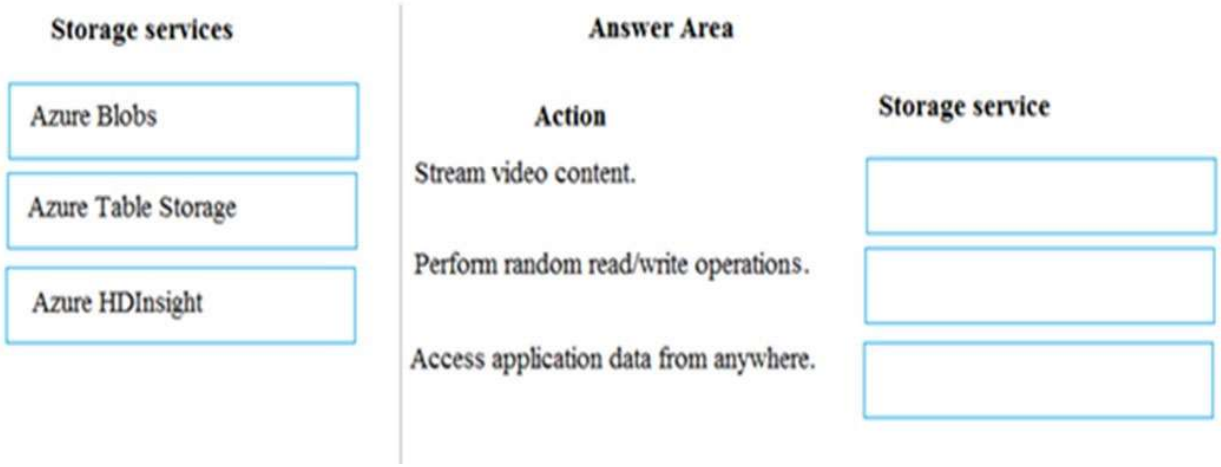
Hide Solution Discussion 2

Correct Answer: *B*

Question #49*Topic 6*

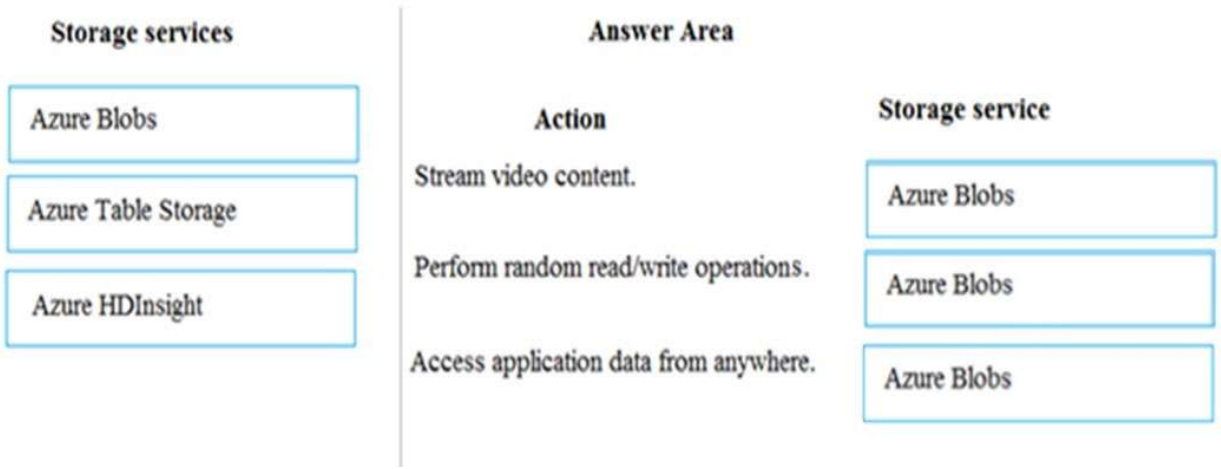
DRAG DROP -
You are developing a web app that uses a REST interface to connect to Azure Storage with HTTPS. This app uploads and streams video content that can be accessed from anywhere in the world.
You have different storage requirements for each part of the app. A hierarchical namespace must be created.
Which storage services should you implement? To answer, select the appropriate services to the correct actions. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.

Select and Place:



Hide Solution Discussion 2

Correct Answer:



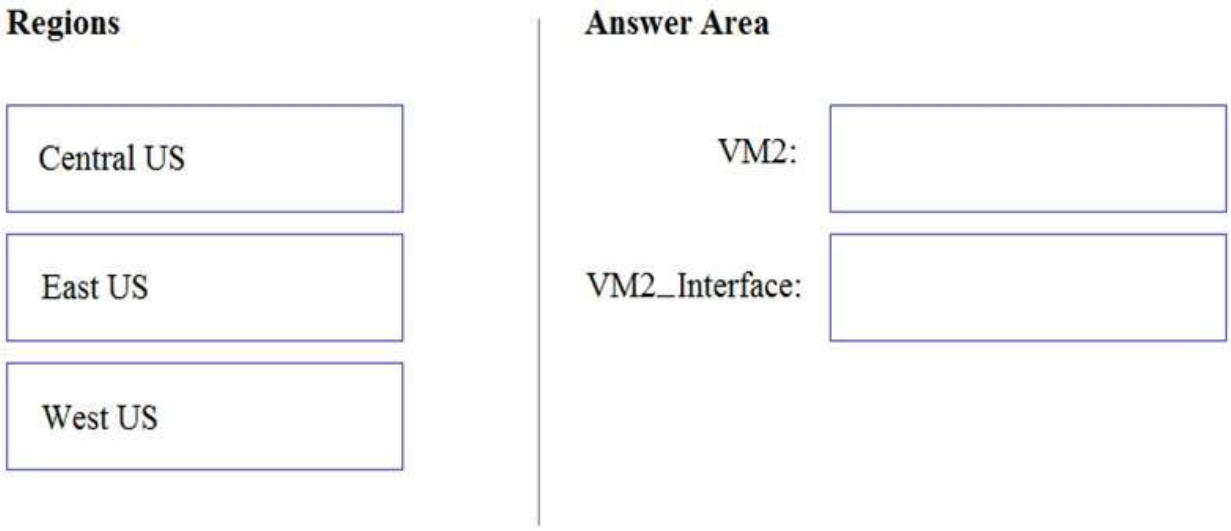
Question #50*Topic 6*

DRAG DROP -
You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Region	Resource group
RG1	Resource group	Central US	*Not applicable*
RG2	Resource group	West US	*Not applicable*
VM1	Virtual machine	East US	RG2
VNET1	Virtual network	East US	RG1

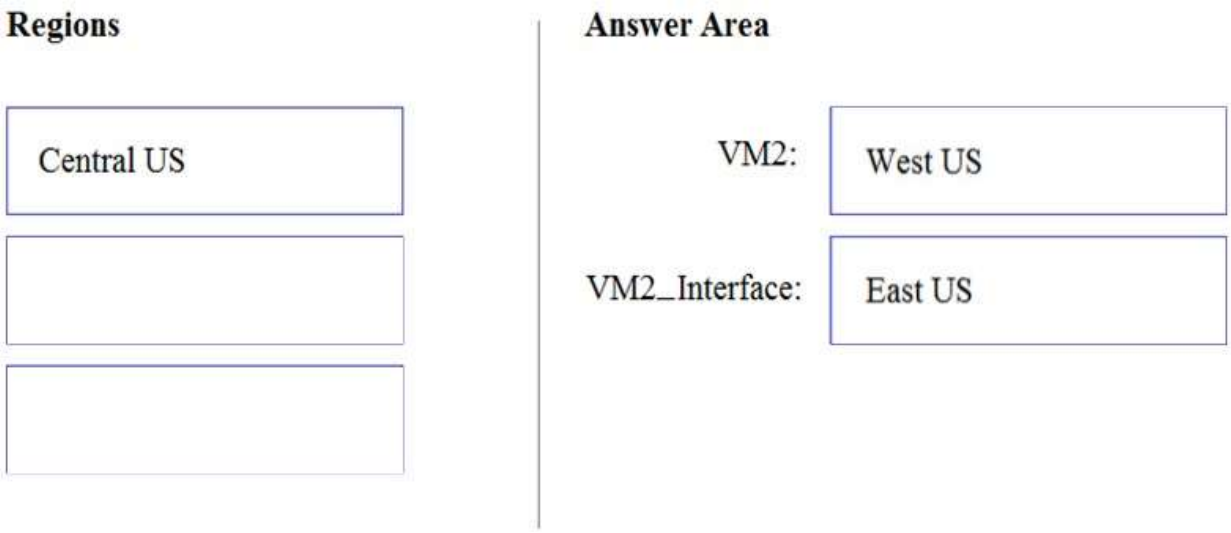
In RG2, you need to create a new virtual machine named VM2 that will connect to VNET1. VM2 will use a network interface named VM2_Interface.

In which region should you create VM2 and VM2_Interface? To answer, drag the appropriate regions to the correct targets. Each region may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.
Select and Place:



Hide Solution Discussion 4

Correct Answer:



VM2: West US -
In RG2, which is in West US, you need to create a new virtual machine named VM2.

VM2_interface: East US -
VM2 will use a network interface named VM2_Interface to connect to VNET1, which is in East US.
References:
https://docs.microsoft.com/en-us/azure/virtual-network/associate-public-ip-address-vm

Question #51*Topic 6*

You create an Azure Time Series Insights event handler. You need to send data over the network as efficiently as possible and optimize query performance.
What should you do?

- A. Create a query plan
- B. Send all properties
- C. Use a Tag ID
- D. Use reference data

Hide Solution Discussion 1

Correct Answer: *D*
References:
https://docs.microsoft.com/en-us/azure/time-series-insights/how-to-shape-query-json

Question #52*Topic 6*

You are creating an IoT solution using Azure Time Series Insights.
You configure the environment to ensure that all data for the current year is available.
What should you do?

- A. Add a disaster recovery (DR) strategy.
- B. Set a value for the Data retention time setting.
- C. Change the pricing tier.
- D. Create a reference data set.

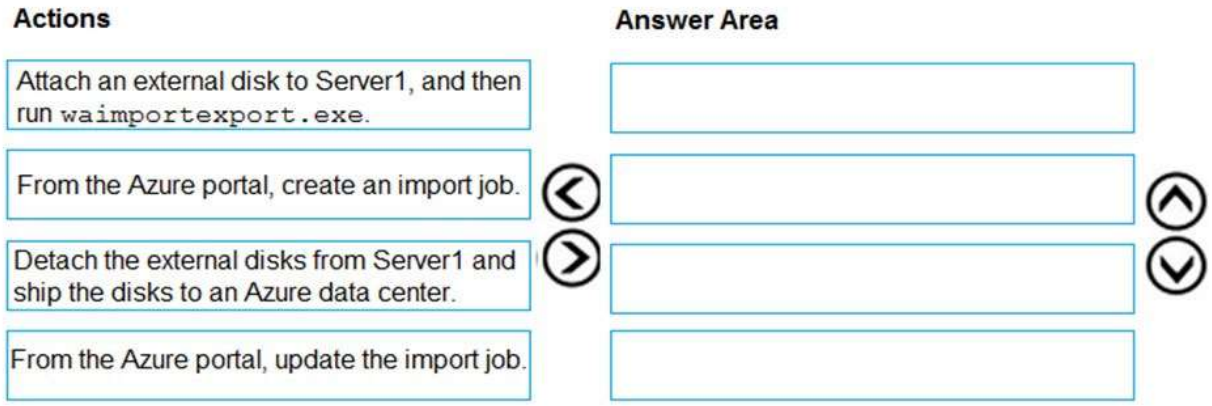
Hide Solution Discussion 2

Correct Answer: *D*

Question #53*Topic 6*

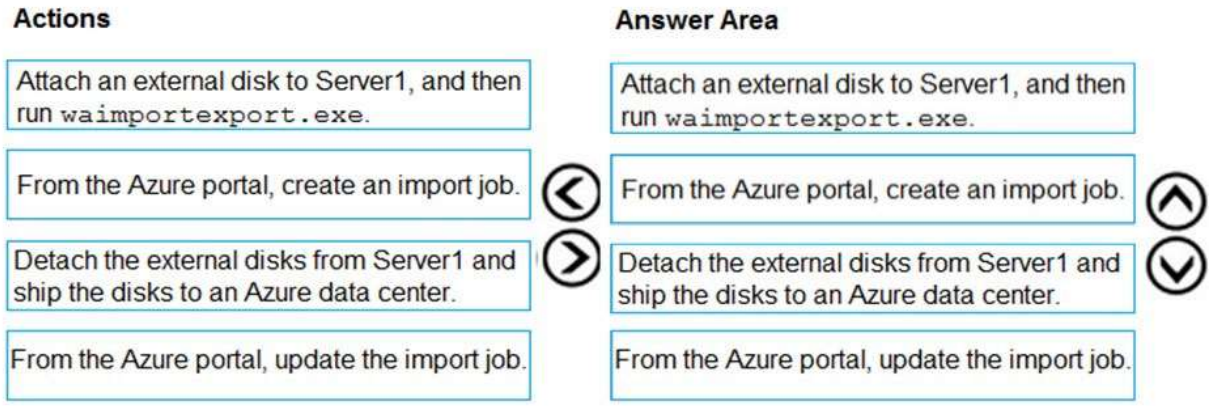
DRAG DROP -
You have an Azure subscription that contains a storage account.
You have an on-premises server named Server1 that runs Windows Server 2016. Server1 has 2 TB of data.
You need to transfer the data to the storage account by using the Azure Import/Export service.
In which order should you perform the actions? To answer, move all actions form the list of actions to the answer area and arrange them in the correct order.
NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:



Hide Solution Discussion 1

Correct Answer:



At a high level, an import job involves the following steps:
Step 1: Attach an external disk to Server1 and then run waimportexport.exe
Determine data to be imported, number of drives you need, destination blob location for your data in Azure storage.
Use the WAImportExport tool to copy data to disk drives. Encrypt the disk drives with BitLocker.
Step 2: From the Azure portal, create an import job.
Create an import job in your target storage account in Azure portal. Upload the drive journal files.
Step 3: Detach the external disks from Server1 and ship the disks to an Azure data center.
Provide the return address and carrier account number for shipping the drives back to you.
Ship the disk drives to the shipping address provided during job creation.
Step 4: From the Azure portal, update the import job
Update the delivery tracking number in the import job details and submit the import job.
The drives are received and processed at the Azure data center.
The drives are shipped using your carrier account to the return address provided in the import job.

Question #1*Topic 7*

Introductory Info Case study -
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Overview -
Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.
Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -
Currently, Contoso uses multiple types of servers for business operations, including the following:
File servers
Domain controllers
Microsoft SQL Server servers
Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.
You have a public-facing application named App1. App1 is comprised of the following three tiers:
A SQL database

A web front end -

-

A processing middle tier
Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -
Contoso plans to implement the following changes to the infrastructure:
Move all the tiers of App1 to Azure.
Move the existing product blueprint files to Azure Blob storage.
Create a hybrid directory to support an upcoming Microsoft 365 migration project.

Technical Requirements -
Contoso must meet the following technical requirements:
Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.
Ensure that all the virtual machines for App1 are protected by backups.
Copy the blueprint files to Azure over the Internet.
Ensure that the blueprint files are stored in the archive storage tier.
Ensure that partner access to the blueprint files is secured and temporary.
Prevent user passwords or hashes of passwords from being stored in Azure.
Use unmanaged standard storage for the hard disks of the virtual machines.
Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
Minimize administrative effort whenever possible.

User Requirements -
Contoso identifies the following requirements for users:
Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
Designate a new user named Admin1 as the service admin for the Azure subscription.
Admin1 must receive email alerts regarding service outages.
Ensure that a new user named User3 can create network objects for the Azure subscription.**Question**HOTSPOT -
You need to identify the storage requirements for Contoso.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	○	○
Contoso requires a storage account that supports Azure Table storage.	○	○
Contoso requires a storage account that supports Azure File Storage.	○	○

Hide Solution Discussion 2

Correct Answer:

Answer Area

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	○	○
Contoso requires a storage account that supports Azure Table storage.	○	○
Contoso requires a storage account that supports Azure File Storage.	○	○

Box 1: Yes -
Scenario: Move the existing product blueprint files to Azure Blob storage.
Scenario: Use unmanaged standard storage for the hard disks of the virtual machines.
Page blobs are optimized for writes at random locations within a blob. They also support Unmanaged Disks.
Scenario:
SQL Server Data Files in Microsoft Azure enables native support for SQL Server database files stored as blobs. It allows you to create a database in SQL Server running in on-premises or in a virtual machine in Microsoft Azure with a dedicated storage location for your data in Microsoft Azure Blob storage.

Box 2: No -

Box 3: No -
Reference:
https://docs.microsoft.com/en-us/sql/relational-databases/databases/sql-server-data-files-in-microsoft-azure
Question #2*Topic 7*

Introductory Info Case study -
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A SQL database

A web front end -

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A processing middle tier
Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -
Contoso plans to implement the following changes to the infrastructure:
Move all the tiers of App1 to Azure.
Move the existing product blueprint files to Azure Blob storage.
Create a hybrid directory to support an upcoming Microsoft 365 migration project.

Technical Requirements -
Contoso must meet the following technical requirements:
Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.
Ensure that all the virtual machines for App1 are protected by backups.
Copy the blueprint files to Azure over the Internet.
Ensure that the blueprint files are stored in the archive storage tier.
Ensure that partner access to the blueprint files is secured and temporary.
Prevent user passwords or hashes of passwords from being stored in Azure.

Use unmanaged standard storage for the hard disks of the virtual machines.
Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
Minimize administrative effort whenever possible.

User Requirements -
Contoso identifies the following requirements for users:
Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
Designate a new user named Admin1 as the service admin for the Azure subscription.
Admin1 must receive email alerts regarding service outages.
Ensure that a new user named User3 can create network objects for the Azure subscription.**Question**You need to move the blueprint files to Azure.
What should you do?

- A. Use the Azure Import/Export service.
- B. Generate a shared access signature (SAS). Map a drive, and then copy the files by using File Explorer.
- C. Use Azure Storage Explorer to copy the files.
- D. Generate an access key. Map a drive, and then copy the files by using File Explorer.

Hide Solution | Discussion 2

Correct Answer: *C*
Scenario:
☞ Copy the blueprint files to Azure over the Internet.
☞ Ensure that the blueprint files are stored in the archive storage tier.
☞ Ensure that partner access to the blueprint files is secured and temporary.
Copy the blueprint files to Azure over the Internet.
To mount an Azure file share, you will need the primary (or secondary) storage key. SAS keys are not currently supported for mounting.
Incorrect Answers:
A: Azure Import/Export service is used to securely import large amounts of data to Azure Blob storage and Azure Files by shipping disk drives to an Azure datacenter.
B: You cannot map a drive with a SAS signature.
Reference:
https://docs.microsoft.com/en-us/azure/vs-azure-tools-storage-explorer-files
Question #3*Topic 7*

Introductory Info Case study -
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Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.
You have a public-facing application named App1. App1 is comprised of the following three tiers:
A SQL database

A web front end -

-
A processing middle tier
Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -
Contoso plans to implement the following changes to the infrastructure:
Move all the tiers of App1 to Azure.
Move the existing product blueprint files to Azure Blob storage.
Create a hybrid directory to support an upcoming Microsoft 365 migration project.

Technical Requirements -
Contoso must meet the following technical requirements:
Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.
Ensure that all the virtual machines for App1 are protected by backups.
Copy the blueprint files to Azure over the Internet.
Ensure that the blueprint files are stored in the archive storage tier.
Ensure that partner access to the blueprint files is secured and temporary.
Prevent user passwords or hashes of passwords from being stored in Azure.
Use unmanaged standard storage for the hard disks of the virtual machines.
Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
Minimize administrative effort whenever possible.

User Requirements -
Contoso identifies the following requirements for users:
Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
Designate a new user named Admin1 as the service admin for the Azure subscription.
Admin1 must receive email alerts regarding service outages.
Ensure that a new user named User3 can create network objects for the Azure subscription.**Question**You need to implement a backup solution for App1 after the application is moved.
What should you create first?

- A. an Azure Backup Server
- B. a Recovery Services vault
- C. a recovery plan
- D. a backup policy

Hide Solution Discussion 2

Correct Answer: *B*
Scenario: Ensure that all the virtual machines for App1 are protected by backups.
You can back up Azure VMs using a couple of methods:
☞ Single Azure VM: You can back up an Azure VM directly from the VM settings.
☞ Multiple Azure VMs: You can set up a Recovery Services vault and configure backup for multiple Azure VMs.
Reference:
https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm

Question #1*Topic 8*

Introductory Info Case study -
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Overview -
Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.
Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -
Currently, Contoso uses multiple types of servers for business operations, including the following:
File servers
Domain controllers
Microsoft SQL Server servers
Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.
You have a public-facing application named App1. App1 is comprised of the following three tiers:
A SQL database

A web front end -

-
A processing middle tier
Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -
Contoso plans to implement the following changes to the infrastructure:
Move all the tiers of App1 to Azure.
Move the existing product blueprint files to Azure Blob storage.
Create a hybrid directory to support an upcoming Microsoft 365 migration project.

Technical Requirements -
Contoso must meet the following technical requirements:
Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.
Ensure that all the virtual machines for App1 are protected by backups.
Copy the blueprint files to Azure over the Internet.
Ensure that the blueprint files are stored in the archive storage tier.
Ensure that partner access to the blueprint files is secured and temporary.
Prevent user passwords or hashes of passwords from being stored in Azure.
Use unmanaged standard storage for the hard disks of the virtual machines.
Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
Minimize administrative effort whenever possible.

User Requirements -
Contoso identifies the following requirements for users:
Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
Designate a new user named Admin1 as the service admin for the Azure subscription.
Admin1 must receive email alerts regarding service outages.
Ensure that a new user named User3 can create network objects for the Azure subscription.**Question**You need to recommend an identity solution that meets the technical requirements.
What should you recommend?

- A. password hash synchronization and single sign-on (SSO)
- B. federated single sign-on (SSO) and Active Directory Federation Services (AD FS)
- C. Pass-thorough Authentication and single sign-on (SSO)
- D. cloud-only user accounts

Hide Solution Discussion 1

Correct Answer: *C*
With Pass-through Authentication the on-premises passwords are never stored in the cloud in any form.
Scenario:
☞ Prevent user passwords or hashes of passwords from being stored in Azure.
☞ Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a

mobile phone to verify their identity.
☞ Minimize administrative effort whenever possible.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-pta

Question #1*Topic 9*

Introductory Info Case study -
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Overview -
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Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -
Currently, Contoso uses multiple types of servers for business operations, including the following:
File servers
Domain controllers
Microsoft SQL Server servers
Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.
You have a public-facing application named App1. App1 is comprised of the following three tiers:
A SQL database

A web front end -

.
A processing middle tier
Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

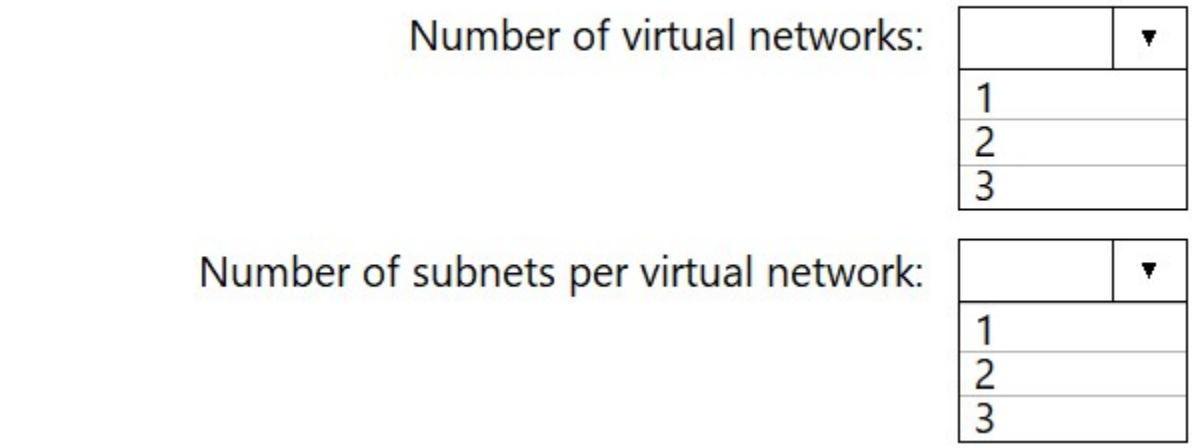
Planned Changes -
Contoso plans to implement the following changes to the infrastructure:
Move all the tiers of App1 to Azure.
Move the existing product blueprint files to Azure Blob storage.
Create a hybrid directory to support an upcoming Microsoft 365 migration project.

Technical Requirements -
Contoso must meet the following technical requirements:
Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.
Ensure that all the virtual machines for App1 are protected by backups.
Copy the blueprint files to Azure over the Internet.
Ensure that the blueprint files are stored in the archive storage tier.
Ensure that partner access to the blueprint files is secured and temporary.
Prevent user passwords or hashes of passwords from being stored in Azure.
Use unmanaged standard storage for the hard disks of the virtual machines.
Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
Minimize administrative effort whenever possible.

User Requirements -
Contoso identifies the following requirements for users:
Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
Designate a new user named Admin1 as the service admin for the Azure subscription.
Admin1 must receive email alerts regarding service outages.
Ensure that a new user named User3 can create network objects for the Azure subscription.**Question**HOTSPOT -
You need to recommend a solution for App1. The solution must meet the technical requirements.
What should you include in the recommendation? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

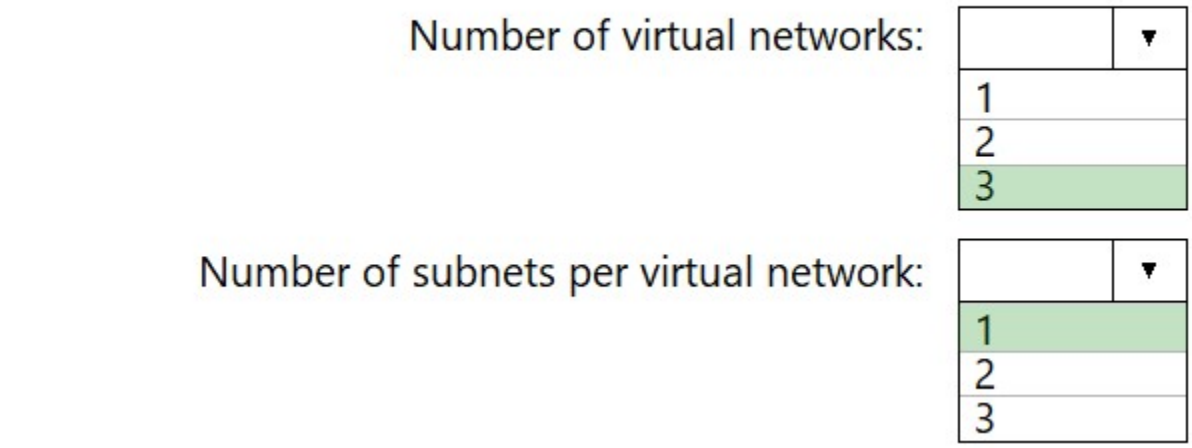
Answer Area



Hide Solution | Discussion 4

Correct Answer:

Answer Area



Box 1: 3 -
One virtual network for every tier

Box 2: 1 -
Only one subnet for each tier, to minimize the number of open ports.
Scenario: You have a public-facing application named App1. App1 is comprised of the following three tiers:

- A SQL database
- A web front end
- A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.
Technical requirements:
☞ Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.

▪

Question #1*Topic 10*

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Overview -
Humongous Insurance is an insurance company that has three offices in Miami, Tokyo and Bangkok. Each office has 5.000 users.

Existing Environment -

Active Directory Environment -
Humongous Insurance has a single-domain Active Directory forest named humongousinsurance.com. The functional level of the forest is Windows Server 2012.
You recently provisioned an Azure Active Directory (Azure AD) tenant.

Network Infrastructure -
Each office has a local data center that contains all the servers for that office. Each office has a dedicated connection to the Internet.
Each office has several link load balancers that provide access to the servers.

Active Directory Issue -
Several users in humongousinsurance.com have UPNs that contain special characters.
You suspect that some of the characters are unsupported in Azure AD.

Licensing Issue -
You attempt to assign a license in Azure to several users and receive the following error message: "Licenses not assigned. License agreement failed for one user."
You verify that the Azure subscription has the available licenses.

Requirements -

Planned Changes -
Humongous Insurance plans to open a new office in Paris. The Paris office will contain 1,000 users who will be hired during the next 12 months. All the resources used by the Paris office users will be hosted in Azure.

Planned Azure AD Infrastructure -
The on-premises Active Directory domain will be synchronized to Azure AD.
All client computers in the Paris office will be joined to an Azure AD domain.
Planned Azure Networking Infrastructure
You plan to create the following networking resources in a resource group named All_Resources:
- Default Azure system routes that will be the only routes used to route traffic
- A virtual network named Paris-VNet that will contain two subnets named Subnet1 and Subnet2
- A virtual network named ClientResources-VNet that will contain one subnet named ClientSubnet
- A virtual network named AllOffices-VNet that will contain two subnets named Subnet3 and Subnet4
You plan to enable peering between Paris-VNet and AllOffices-VNet. You will enable the Use remote gateways setting for the Paris-VNet peerings.
You plan to create a private DNS zone named humongousinsurance.local and set the registration network to the ClientResources-VNet virtual network.
Planned Azure Computer Infrastructure
Each subnet will contain several virtual machines that will run either Windows Server 2012 R2, Windows Server 2016, or Red Hat Linux.

Department Requirements -
Humongous Insurance identifies the following requirements for the company's departments:
- Web administrators will deploy Azure web apps for the marketing department. Each web app will be added to a separate resource group. The initial configuration of the web apps will be identical. The web administrators have permission to deploy web apps to resource groups.
- During the testing phase, auditors in the finance department must be able to review all Azure costs from the past week.

Authentication Requirements -

Users in the Miami office must use Azure Active Directory Seamless Single Sign-on (Azure AD Seamless SSO) when accessing resources in Azure.**Question**HOTSPOT -
You are evaluating the connectivity between the virtual machines after the planned implementation of the Azure networking infrastructure.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
Hot Area:

Answer Area

Statements	Yes	No
The virtual machines on Subnet1 will be able to connect to the virtual machines on Subnet3.	○	○
The virtual machines on ClientSubnet will be able to connect to the Internet.	○	○
The virtual machines on Subnet3 and Subnet4 will be able to connect to the Internet.	○	○

Hide Solution | Discussion 7

Correct Answer:

Answer Area

Statements	Yes	No
The virtual machines on Subnet1 will be able to connect to the virtual machines on Subnet3.	○	○
The virtual machines on ClientSubnet will be able to connect to the Internet.	○	○
The virtual machines on Subnet3 and Subnet4 will be able to connect to the Internet.	○	○

Once the VNets are peered, all resources on one VNet can communicate with resources on the other peered VNets. You plan to enable peering between Paris-
VNet and AllOffices-VNet. Therefore VMs on Subnet1, which is on Paris-VNet and VMs on Subnet3, which is on AllOffices-VNet will be able to connect to each other.
All Azure resources connected to a VNet have outbound connectivity to the Internet by default.

Therefore VMs on ClientSubnet, which is on ClientResources-VNet will have access to the Internet; and VMs on Subnet3 and Subnet4, which are on AllOffices-VNet will have access to the Internet.
References:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview
https://docs.microsoft.com/en-us/azure/networking/networking-overview#internet-connectivity
Question #2*Topic 10*

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You verify that the Azure subscription has the available licenses.

Requirements -

Planned Changes -
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Planned Azure AD Infrastructure -
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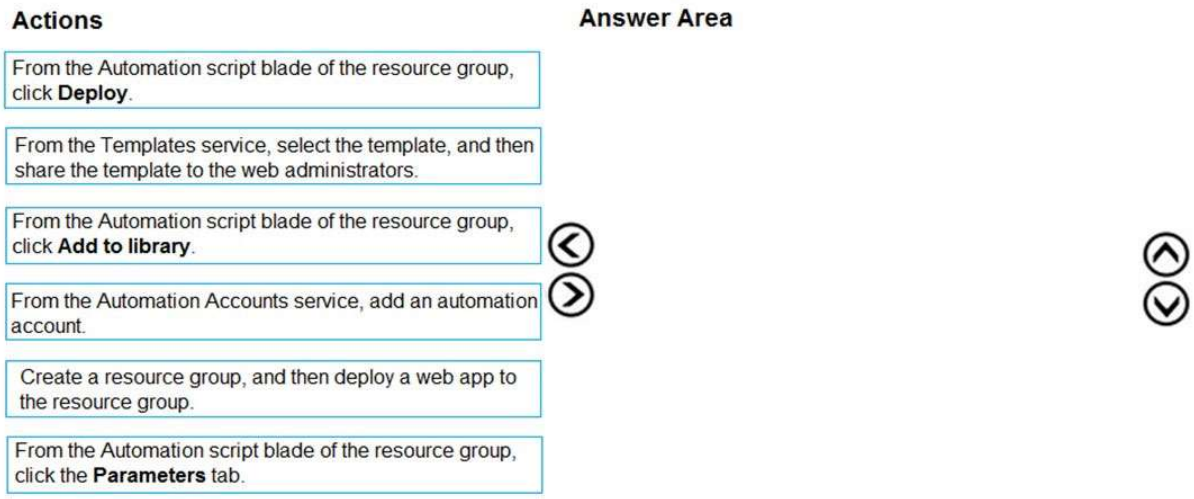
- A virtual network named Paris-VNet that will contain two subnets named Subnet1 and Subnet2
- A virtual network named ClientResources-VNet that will contain one subnet named ClientSubnet
- A virtual network named AllOffices-VNet that will contain two subnets named Subnet3 and Subnet4
You plan to enable peering between Paris-VNet and AllOffices-VNet. You will enable the Use remote gateways setting for the Paris-VNet peerings.
You plan to create a private DNS zone named humongousinsurance.local and set the registration network to the ClientResources-VNet virtual network.
Planned Azure Computer Infrastructure
Each subnet will contain several virtual machines that will run either Windows Server 2012 R2, Windows Server 2016, or Red Hat Linux.

Department Requirements -
Humongous Insurance identifies the following requirements for the company's departments:
- Web administrators will deploy Azure web apps for the marketing department. Each web app will be added to a separate resource group. The initial configuration of the web apps will be identical. The web administrators have permission to deploy web apps to resource groups.
- During the testing phase, auditors in the finance department must be able to review all Azure costs from the past week.

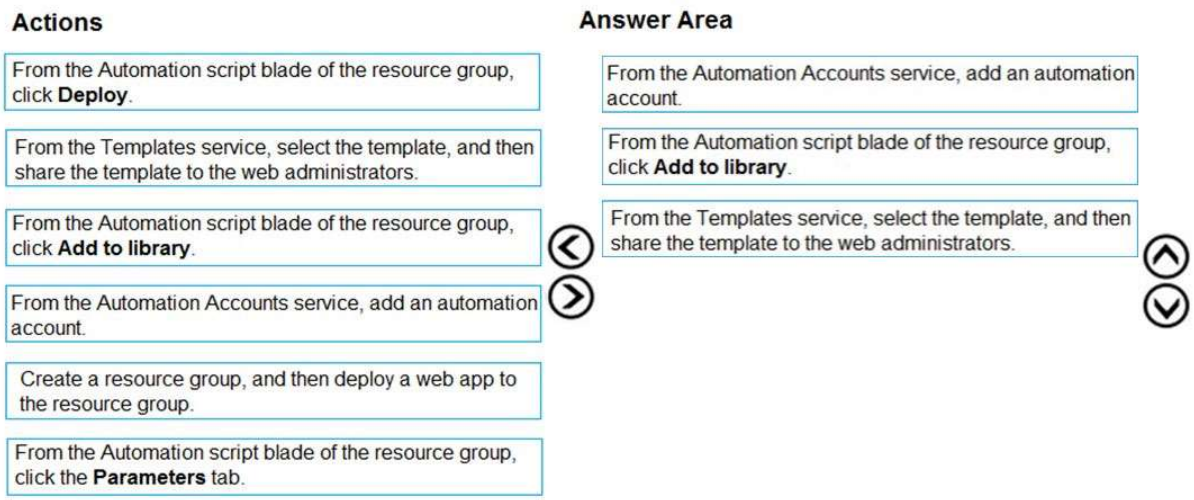
Authentication Requirements -
Users in the Miami office must use Azure Active Directory Seamless Single Sign-on (Azure AD Seamless SSO) when accessing resources in Azure.**Question**DRAG DROP -

You need to prepare the environment to ensure that the web administrators can deploy the web apps as quickly as possible.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.
Select and Place:



Hide Solution Discussion 8

Correct Answer:



Step 1:
First you create a storage account using the Azure portal.
Step 2:
Select Automation options at the bottom of the screen. The portal shows the template on the Template tab.
Add the storage account to the library.
Step 3:

Share the template.
Scenario: Web administrators will deploy Azure web apps for the marketing department. Each web app will be added to a separate resource group. The initial configuration of the web apps will be identical. The web administrators have permission to deploy web apps to resource groups.
References:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-quickstart-create-templates-use-the-portal
Question #3*Topic 10*

Introductory Info Case Study -
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Overview -
Humongous Insurance is an insurance company that has three offices in Miami, Tokyo and Bangkok. Each office has 5.000 users.

Existing Environment -

Active Directory Environment -
Humongous Insurance has a single-domain Active Directory forest named humongousinsurance.com. The functional level of the forest is Windows Server 2012.
You recently provisioned an Azure Active Directory (Azure AD) tenant.

Network Infrastructure -
Each office has a local data center that contains all the servers for that office. Each office has a dedicated connection to the Internet.
Each office has several link load balancers that provide access to the servers.

Active Directory Issue -
Several users in humongousinsurance.com have UPNs that contain special characters.
You suspect that some of the characters are unsupported in Azure AD.

Licensing Issue -
You attempt to assign a license in Azure to several users and receive the following error message: "Licenses not assigned. License agreement failed for one user."
You verify that the Azure subscription has the available licenses.

Requirements -

Planned Changes -
Humongous Insurance plans to open a new office in Paris. The Paris office will contain 1,000 users who will be hired during the next 12 months. All the resources used by the Paris office users will be hosted in Azure.

Planned Azure AD Infrastructure -
The on-premises Active Directory domain will be synchronized to Azure AD.
All client computers in the Paris office will be joined to an Azure AD domain.
Planned Azure Networking Infrastructure
You plan to create the following networking resources in a resource group named All_Resources:
- Default Azure system routes that will be the only routes used to route traffic
- A virtual network named Paris-VNet that will contain two subnets named Subnet1 and Subnet2
- A virtual network named ClientResources-VNet that will contain one subnet named ClientSubnet
- A virtual network named AllOffices-VNet that will contain two subnets named Subnet3 and Subnet4
You plan to enable peering between Paris-VNet and AllOffices-VNet. You will enable the Use remote gateways setting for the Paris-VNet peerings.
You plan to create a private DNS zone named humongousinsurance.local and set the registration network to the ClientResources-VNet virtual network.
Planned Azure Computer Infrastructure
Each subnet will contain several virtual machines that will run either Windows Server 2012 R2, Windows Server 2016, or Red Hat Linux.

Department Requirements -
Humongous Insurance identifies the following requirements for the company's departments:
- Web administrators will deploy Azure web apps for the marketing department. Each web app will be added to a separate resource group. The initial configuration of the web apps will be identical. The web administrators have permission to deploy web apps to resource groups.
- During the testing phase, auditors in the finance department must be able to review all Azure costs from the past week.

Authentication Requirements -

Users in the Miami office must use Azure Active Directory Seamless Single Sign-on (Azure AD Seamless SSO) when accessing resources in Azure.**Question**You need to resolve the licensing issue before you attempt to assign the license again.
What should you do?

- A. From the Directory role blade, modify the directory role
- B. From the Groups blade, invite the user accounts to a new group
- C. From the Profile blade, modify the usage location

Hide Solution Discussion 3

Correct Answer: *C*
License cannot be assigned to a user without a usage location specified.

Scenario: Licensing Issue -
You attempt to assign a license in Azure to several users and receive the following error message: "Licenses not assigned. License agreement failed for one user."
You verify that the Azure subscription has the available licenses.
Question #4*Topic 10*

Introductory Info Case Study -
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Overview -
Humongous Insurance is an insurance company that has three offices in Miami, Tokyo and Bangkok. Each office has 5.000 users.

Existing Environment -

Active Directory Environment -
Humongous Insurance has a single-domain Active Directory forest named humongousinsurance.com. The functional level of the forest is Windows Server 2012.
You recently provisioned an Azure Active Directory (Azure AD) tenant.

Network Infrastructure -
Each office has a local data center that contains all the servers for that office. Each office has a dedicated connection to the Internet.
Each office has several link load balancers that provide access to the servers.

Active Directory Issue -
Several users in humongousinsurance.com have UPNs that contain special characters.
You suspect that some of the characters are unsupported in Azure AD.

Licensing Issue -
You attempt to assign a license in Azure to several users and receive the following error message: "Licenses not assigned. License agreement failed for one user."
You verify that the Azure subscription has the available licenses.

Requirements -

Planned Changes -
Humongous Insurance plans to open a new office in Paris. The Paris office will contain 1,000 users who will be hired during the next 12 months. All the resources used by the Paris office users will be hosted in Azure.

Planned Azure AD Infrastructure -
The on-premises Active Directory domain will be synchronized to Azure AD.
All client computers in the Paris office will be joined to an Azure AD domain.
Planned Azure Networking Infrastructure
You plan to create the following networking resources in a resource group named All_Resources:
- Default Azure system routes that will be the only routes used to route traffic
- A virtual network named Paris-VNet that will contain two subnets named Subnet1 and Subnet2
- A virtual network named ClientResources-VNet that will contain one subnet named ClientSubnet
- A virtual network named AllOffices-VNet that will contain two subnets named Subnet3 and Subnet4

You plan to enable peering between Paris-VNet and AllOffices-VNet. You will enable the Use remote gateways setting for the Paris-VNet peerings.
You plan to create a private DNS zone named humongousinsurance.local and set the registration network to the ClientResources-VNet virtual network.
Planned Azure Computer Infrastructure

Each subnet will contain several virtual machines that will run either Windows Server 2012 R2, Windows Server 2016, or Red Hat Linux.

Department Requirements -
Humongous Insurance identifies the following requirements for the company's departments:
- Web administrators will deploy Azure web apps for the marketing department. Each web app will be added to a separate resource group. The initial configuration of the web apps will be identical. The web administrators have permission to deploy web apps to resource groups.
- During the testing phase, auditors in the finance department must be able to review all Azure costs from the past week.

Authentication Requirements -
Users in the Miami office must use Azure Active Directory Seamless Single Sign-on (Azure AD Seamless SSO) when accessing resources in Azure.**Question**You need to define a custom domain name for Azure AD to support the planned infrastructure.
Which domain name should you use?

- A. ad.humongousinsurance.com
- B. humongousinsurance.local
- C. humongousinsurance.com
- D. humongousinsurance.onmicrosoft.com

Hide Solution Discussion 4

Correct Answer: *C*
Every Azure AD directory comes with an initial domain name in the form of domainname.onmicrosoft.com. The initial domain name cannot be changed or deleted, but you can add your corporate domain name to Azure AD as well. For example, your organization probably has other domain names used to do business and users who sign in using your corporate domain name. Adding custom domain names to Azure AD allows you to assign user names in the directory that are familiar to your users, such as ג€˜alice@contoso.com.ג€™ instead of 'alice@domain name.onmicrosoft.com'.
Scenario:
Network Infrastructure: Each office has a local data center that contains all the servers for that office. Each office has a dedicated connection to the Internet.
Humongous Insurance has a single-domain Active Directory forest named humongousinsurance.com
Planned Azure AD Infrastructure: The on-premises Active Directory domain will be synchronized to Azure AD.
References:
https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/add-custom-domain

Question #1*Topic 11*

Introductory Info Case study -
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Overview -
Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.
The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.
All the resources used by Contoso are hosted on-premises.
Contoso creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named contoso.onmicrosoft.com. The tenant uses the
P1 pricing tier.

Existing Environment -
The network contains an Active Directory forest named contoso.com. All domain controllers are configured as DNS servers and host the contoso.com DNS zone.
Contoso has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the department attribute set to their respective department. New users are added frequently.
Contoso.com contains a user named User1.
All the offices connect by using private links.
Contoso has data centers in the Montreal and Seattle offices. Each data center has a firewall that can be configured as a VPN device.
All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains virtual machine
Server1	VMWare vCenter server	VM1
Server2	Hyper-V host	VM2

Contoso uses two web applications named App1 and App2. Each instance on each web application requires 1GB of memory.
The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
VM3	Virtual machine
VM4	Virtual machine

The network security team implements several network security groups (NSGs).

Planned Changes -
Contoso plans to implement the following changes:
- Deploy Azure ExpressRoute to the Montreal office.
- Migrate the virtual machines hosted on Server1 and Server2 to Azure.
- Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).
- Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

Technical Requirements -
Contoso must meet the following technical requirements:
- Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.
- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.
- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.
- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.
- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.contoso.com
- Connect the New York office to VNet1 over the Internet by using an encrypted connection.
- Create a workflow to send an email message when the settings of VM4 are modified.
- Create a custom Azure role named Role1 that is based on the Reader role.
- Minimize costs whenever possible.**Question**HOTSPOT -
You need to meet the connection requirements for the New York office.
What should you do? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

From the Azure portal:	Create an ExpressRoute circuit only. Create a virtual network gateway only. Create a virtual network gateway and a local network gateway. Create an ExpressRoute circuit and an on-premises data gateway. Create a virtual network gateway and an on-premises data gateway.
In the New York office:	Deploy ExpressRoute. Deploy a DirectAccess server. Implement a Web Application Proxy. Configure a site-to-site VPN connection.

Hide Solution | Discussion 10

Correct Answer:

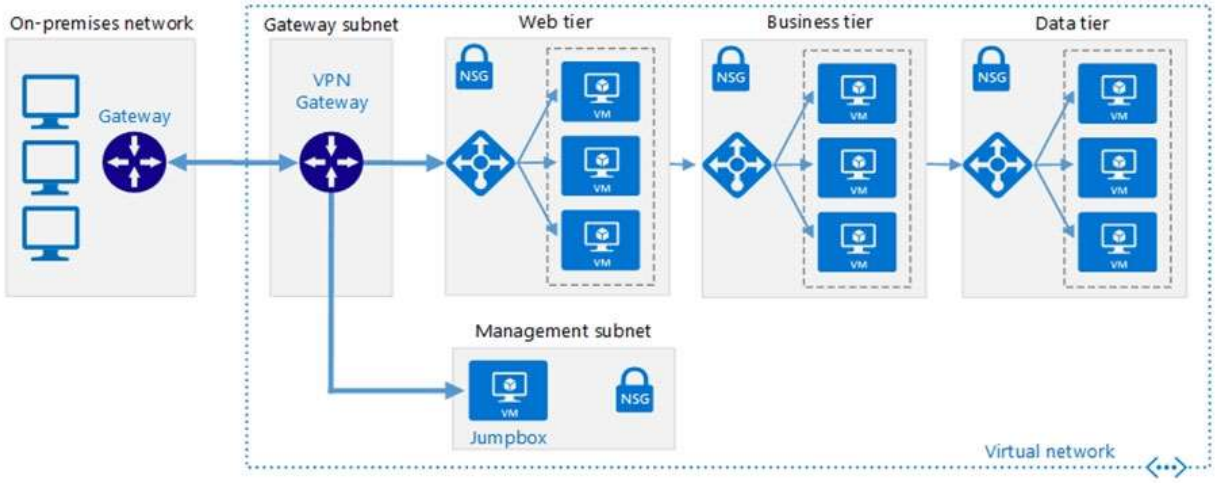
Answer Area

From the Azure portal:	Create an ExpressRoute circuit only. Create a virtual network gateway only. **Create a virtual network gateway and a local network gateway.** Create an ExpressRoute circuit and an on-premises data gateway. Create a virtual network gateway and an on-premises data gateway.
In the New York office:	Deploy ExpressRoute. Deploy a DirectAccess server. Implement a Web Application Proxy. **Configure a site-to-site VPN connection.**

Box 1: Create a virtual network gateway and a local network gateway.
Azure VPN gateway. The VPN gateway service enables you to connect the VNet to the on-premises network through a VPN appliance. For more information, see
Connect an on-premises network to a Microsoft Azure virtual network. The VPN gateway includes the following elements:

- Virtual network gateway. A resource that provides a virtual VPN appliance for the VNet. It is responsible for routing traffic from the on-premises network to the VNet.
- Local network gateway. An abstraction of the on-premises VPN appliance. Network traffic from the cloud application to the on-premises network is routed through this gateway.
- Connection. The connection has properties that specify the connection type (IPSec) and the key

shared with the on-premises VPN appliance to encrypt traffic.
☞ Gateway subnet. The virtual network gateway is held in its own subnet, which is subject to various requirements, described in the Recommendations section below.
Box 2: Configure a site-to-site VPN connection
On premises create a site-to-site connection for the virtual network gateway and the local network gateway.



Scenario: Connect the New York office to VNet1 over the Internet by using an encrypted connection.
Incorrect Answers:
Azure ExpressRoute: Established between your network and Azure, through an ExpressRoute partner. This connection is private. Traffic does not go over the internet.
References:
https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/vpn

Question #1*Topic 12*

Introductory Info Case Study -
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Overview -
ADatum Corporation is a financial company that has two main offices in New York and Los Angeles. ADatum has a subsidiary named Fabrikam, Inc. that shares the Los Angeles office.
ADatum is conducting an initial deployment of Azure services to host new line-of-business applications and is preparing to migrate its existing on-premises workloads to Azure.
ADatum uses Microsoft Exchange Online for email.

Existing Environment -

On-Premises Environment -
The on-premises workloads run on virtual machines hosted in a VMware vSphere 6 infrastructure. All the virtual machines are members of an Active Directory forest named adatum.com and run Windows Server 2016.
The New York office uses an IP address space of 10.0.0.0/16. The Los Angeles office uses an IP address space of 10.10.0.0/16.
The offices connect by using a VPN provided by an ISP. Each office has one Azure ExpressRoute circuit that provides access to Azure services and Microsoft
Online Services. Routing is implemented by using Microsoft peering.
The New York office has a virtual machine named VM1 that has the vSphere console installed.

Azure Environment -
You provision the Azure infrastructure by using the Azure portal. The infrastructure contains the resources shown in the following table.

Name	Type	Azure region
ASRV1	Azure Site Recovery vault	East US
ASRV2	Azure Site Recovery vault	West US
ASE1	Azure App Service Environment	East US
AG1	Azure Application Gateway (internal)	East US
AG2	Azure Application Gateway (Internet-facing)	West US
ER1	ExpressRoute circuit	East US
ER2	ExpressRoute circuit	West US

AG1 has two backend pools named Pool11 and Pool12. AG2 has two backend pools named Pool21 and Pool22.

Requirements -

Planned Changes -
ADatum plans to migrate the virtual machines from the New York office to the East US Azure

region by using Azure Site Recovery.

Infrastructure Requirements -
ADatum identifies the following infrastructure requirements:
- A new web app named App1 that will access third-parties for credit card processing must be deployed.
- A newly developed API must be implemented as an Azure function named App2. App2 will use a blob storage trigger. App2 must process new blobs immediately.
- The Azure infrastructure and the on-premises infrastructure must be prepared for the migration of the VMware virtual machines to Azure.
- The sizes of the Azure virtual machines that will be used to migrate the on-premises workloads must be identified.
- All migrated and newly deployed Azure virtual machines must be joined to the adatum.com domain.
- AG1 must load balance incoming traffic in the following manner:
- http://corporate.adatum.com/video/* will be load balanced across Pool11.
- http://corporate.adatum.com/images/* will be load balanced across Pool12.
- AG2 must load balance incoming traffic in the following manner:
- http://www.adatum.com will be load balanced across Pool21.
- http://fabrikam.com will be load balanced across Pool22.
- ER1 must route traffic between the New York office and platform as a service (PaaS) services in the East US Azure region, as long as ER1 is available.
- ER2 must route traffic between the Los Angeles office and the PaaS services in the West US region, as long as ER2 is available.
- ER1 and ER2 must be configured to fail over automatically.

Application Requirements -
App2 must be available to connect directly to the private IP addresses of the Azure virtual machines. App2 will be deployed directly to an Azure virtual network.
Inbound and outbound communications to App1 must be controlled by using NSGs.

Pricing Requirements -
ADatum identifies the following pricing requirements:
- The cost of App1 and App2 must be minimized
- The transactional charges of Azure Storage accounts must be minimized**Question**What should you create to configure AG2?

- A. multi-site listeners
- B. URL path-based routing rules
- C. basic routing rules
- D. an additional public IP address
- E. basic listeners

Hide Solution Discussion 6

Correct Answer: *A*
- AG2 must load balance incoming traffic in the following manner:
- http://www.adatum.com will be load balanced across Pool21.
- http://fabrikam.com will be load balanced across Pool22.

You need to configure an Azure Application Gateway with multi-site listeners to direct different URLs to different pools.
References:
https://docs.microsoft.com/en-us/azure/application-gateway/multiple-site-overview
Question #1*Topic 13*
Introductory Info Case study -
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Overview -
Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.
Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -
Currently, Contoso uses multiple types of servers for business operations, including the following:
File servers
Domain controllers
Microsoft SQL Server servers
Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.
You have a public-facing application named App1. App1 is comprised of the following three tiers:

A SQL database

A web front end -

▪
A processing middle tier
Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -
Contoso plans to implement the following changes to the infrastructure:
Move all the tiers of App1 to Azure.
Move the existing product blueprint files to Azure Blob storage.
Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

Technical Requirements -
Contoso must meet the following technical requirements:
Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.
Ensure that all the virtual machines for App1 are protected by backups.
Copy the blueprint files to Azure over the Internet.
Ensure that the blueprint files are stored in the archive storage tier.
Ensure that partner access to the blueprint files is secured and temporary.
Prevent user passwords or hashes of passwords from being stored in Azure.
Use unmanaged standard storage for the hard disks of the virtual machines.
Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
Minimize administrative effort whenever possible.

User Requirements -
Contoso identifies the following requirements for users:
Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
Designate a new user named Admin1 as the service admin for the Azure subscription.
Admin1 must receive email alerts regarding service outages.
Ensure that a new user named User3 can create network objects for the Azure subscription.**Question**You need to implement a backup solution for App1 after the application is moved.
What should you create first?

- A. an Azure Backup Server
- B. a Recovery Services vault
- C. a backup policy
- D. a recovery plan

Hide Solution Discussion 3

Correct Answer: *B*

Scenario: Ensure that all the virtual machines for App1 are protected by backups.

You can back up Azure VMs using a couple of methods:

☞ Single Azure VM: You can back up an Azure VM directly from the VM settings.

☞ Multiple Azure VMs: You can set up a Recovery Services vault and configure backup for multiple Azure VMs.

References:

https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm

Question #2*Topic 13*

Introductory Info Case study -

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Overview -

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -

Currently, Contoso uses multiple types of servers for business operations, including the following:

File servers

Domain controllers

Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers:
A SQL database

A web front end -

▪
A processing middle tier
Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -
Contoso plans to implement the following changes to the infrastructure:
Move all the tiers of App1 to Azure.
Move the existing product blueprint files to Azure Blob storage.
Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

Technical Requirements -
Contoso must meet the following technical requirements:
Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.
Ensure that all the virtual machines for App1 are protected by backups.
Copy the blueprint files to Azure over the Internet.
Ensure that the blueprint files are stored in the archive storage tier.
Ensure that partner access to the blueprint files is secured and temporary.
Prevent user passwords or hashes of passwords from being stored in Azure.
Use unmanaged standard storage for the hard disks of the virtual machines.
Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
Minimize administrative effort whenever possible.

User Requirements -
Contoso identifies the following requirements for users:
Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
Designate a new user named Admin1 as the service admin for the Azure subscription.
Admin1 must receive email alerts regarding service outages.
Ensure that a new user named User3 can create network objects for the Azure subscription.**Question**HOTSPOT -
You need to identify the storage requirements for Contoso.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	○	○
Contoso requires a storage account that supports Azure Table storage.	○	○
Contoso requires a storage account that supports Azure File Storage.	○	○

Hide Solution | Discussion 4

Correct Answer:

Answer Area

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	○	○
Contoso requires a storage account that supports Azure Table storage.	○	○
Contoso requires a storage account that supports Azure File Storage.	○	○

Box 1: Yes -
Scenario: Move the existing product blueprint files to Azure Blob storage.
Scenario: Use unmanaged standard storage for the hard disks of the virtual machines.
Page blobs are optimized for writes at random locations within a blob. They also support Unmanaged Disks.
Scenario:
SQL Server Data Files in Microsoft Azure enables native support for SQL Server database files stored as blobs. It allows you to create a database in SQL Server running in on-premises or in a virtual machine in Microsoft Azure with a dedicated storage location for your data in Microsoft Azure Blob storage.

Box 2: No -

Box 3: No -
References:
https://docs.microsoft.com/en-us/sql/relational-databases/databases/sql-server-data-files-in-microsoft-azure

Question #3*Topic 13*
Introductory Info Case study -
This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.
To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.
At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -
To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -
Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.
Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -
Currently, Contoso uses multiple types of servers for business operations, including the following:
File servers
Domain controllers
Microsoft SQL Server servers
Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.
You have a public-facing application named App1. App1 is comprised of the following three tiers:
A SQL database

A web front end -

.
A processing middle tier
Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -
Contoso plans to implement the following changes to the infrastructure:
Move all the tiers of App1 to Azure.
Move the existing product blueprint files to Azure Blob storage.
Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

Technical Requirements -
Contoso must meet the following technical requirements:
Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.
Ensure that all the virtual machines for App1 are protected by backups.
Copy the blueprint files to Azure over the Internet.
Ensure that the blueprint files are stored in the archive storage tier.
Ensure that partner access to the blueprint files is secured and temporary.
Prevent user passwords or hashes of passwords from being stored in Azure.
Use unmanaged standard storage for the hard disks of the virtual machines.
Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
Minimize administrative effort whenever possible.

User Requirements -
Contoso identifies the following requirements for users:
Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
Designate a new user named Admin1 as the service admin for the Azure subscription.
Admin1 must receive email alerts regarding service outages.
Ensure that a new user named User3 can create network objects for the Azure subscription.**Question**You need to move the blueprint files to Azure.
What should you do?

- A. Use the Azure Import/Export service.
- B. Use Azure Storage Explorer to copy the files.
- C. Generate a shared access signature (SAS). Map a drive, and then copy the files by using File Explorer.
- D. Generate an access key. Map a drive, and then copy the files by using File Explorer.

Hide Solution Discussion 3

Correct Answer: *D*
Scenario: Copy the blueprint files to Azure over the Internet.
To mount an Azure file share, you will need the primary (or secondary) storage key. SAS keys are not currently supported for mounting.
Incorrect Answers:
A: Azure Import/Export service is used to securely import large amounts of data to Azure Blob storage and Azure Files by shipping disk drives to an Azure datacenter.
References:
https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows

Question #4*Topic 13*
Introductory Info Case study -
This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.
To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.
At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -
To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -
Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.
Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -
Currently, Contoso uses multiple types of servers for business operations, including the following:
File servers
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Microsoft SQL Server servers
Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers:
A SQL database

A web front end -

▪
A processing middle tier
Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -
Contoso plans to implement the following changes to the infrastructure:
Move all the tiers of App1 to Azure.
Move the existing product blueprint files to Azure Blob storage.
Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

Technical Requirements -
Contoso must meet the following technical requirements:
Move all the virtual machines for App1 to Azure.
Minimize the number of open ports between the App1 tiers.
Ensure that all the virtual machines for App1 are protected by backups.
Copy the blueprint files to Azure over the Internet.
Ensure that the blueprint files are stored in the archive storage tier.
Ensure that partner access to the blueprint files is secured and temporary.
Prevent user passwords or hashes of passwords from being stored in Azure.
Use unmanaged standard storage for the hard disks of the virtual machines.
Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
Minimize administrative effort whenever possible.

User Requirements -
Contoso identifies the following requirements for users:
Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
Designate a new user named Admin1 as the service admin for the Azure subscription.
Admin1 must receive email alerts regarding service outages.
Ensure that a new user named User3 can create network objects for the Azure subscription.**Question**HOTSPOT -
You need to recommend a solution for App1. The solution must meet the technical requirements.
What should you include in the recommendation? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Number of virtual networks:

- 1
- 2
- 3

Number of subnets per virtual network:

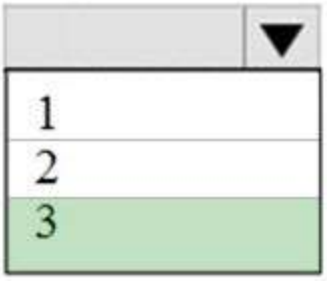
- 1
- 2
- 3

Hide Solution | Discussion 2

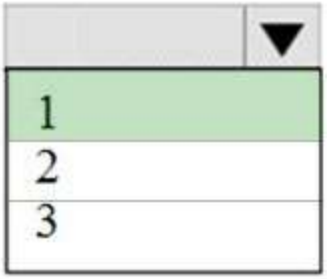
Correct Answer:

Answer Area

Number of virtual networks:



Number of subnets per virtual network:



Box 1: 3 -
One virtual network for every tier

Box 2: 1 -
Only one subnet for each tier, to minimize the number of open ports.
Scenario: You have a public-facing application named App1. App1 is comprised of the following three tiers:

A SQL database -

-
- A web front end
- A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.
Technical requirements:
- Move all the virtual machines for App1 to Azure.

Minimize the number of open ports between the App1 tiers.