# BAC

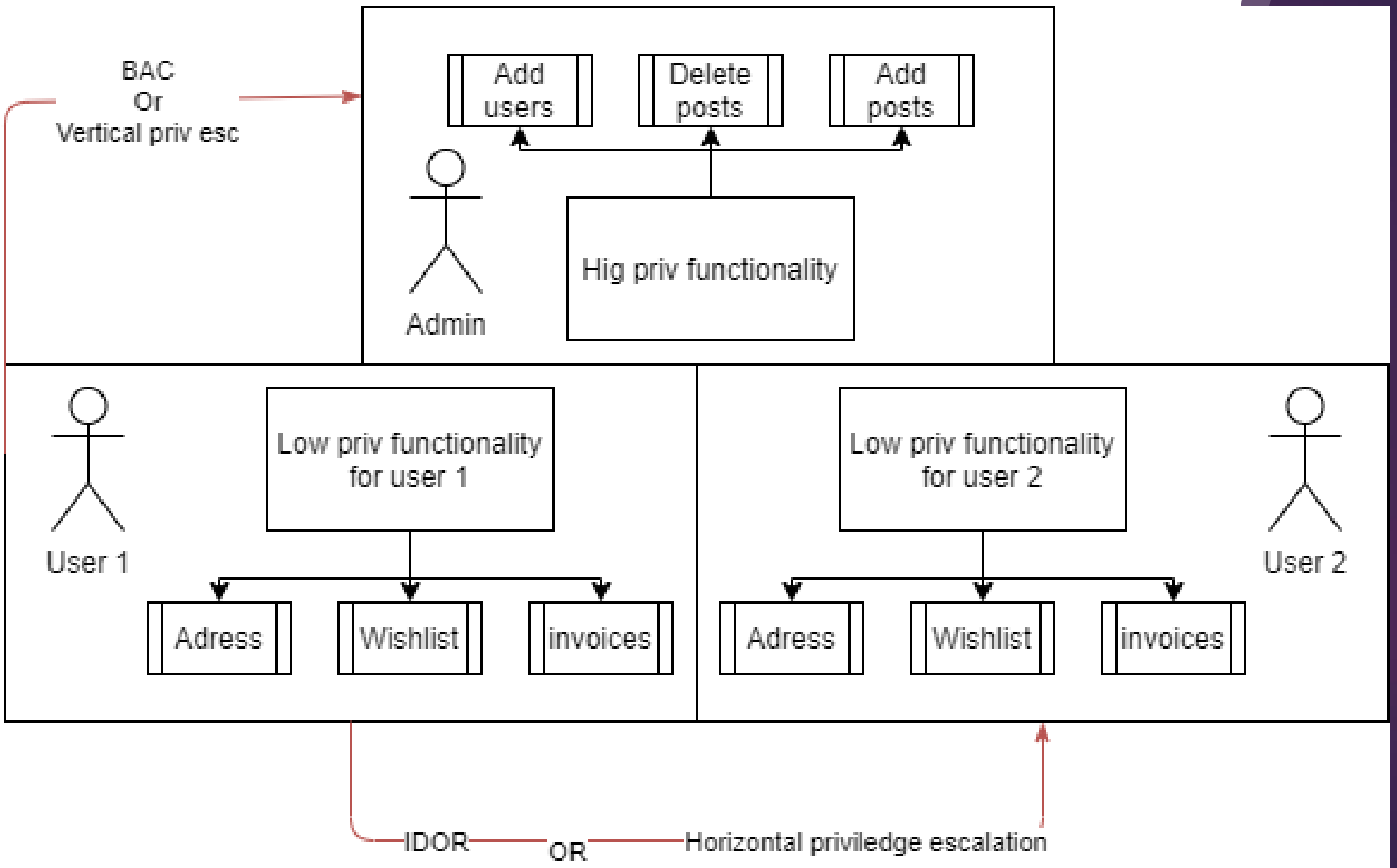
BY UNCLE RAT

# Agenda

- What is BAC
- Attack Strategy
  - Manually
  - Semi-automated strategy

# What is BAC?

# What is BAC (Broken Access Control)



# What is BAC (Broken Access Control)

- Privilege escalation
  - Vertical
  - Horizontal
- Examples:
  - We have an admin and a normal user. We can test the admin settings with the low priv user
  - We have a normal user and a prospect user. The prospect user can not execute all the functions because he only has a trial account
  - We have two users of the same authorization level: See IDOR

# Attack strategy

# Attack Strategy – General tips

- Make sure we have the right target
  - Need users with different access levels for vertical priv esc
  - Need multiple accounts for IDOR (See IDOR chapter)
    - No static websites
- Create a mindmap of the target
  - Note down functionalities
  - Note down priviledge levels
  - Indicate if priviledge level can execute functionality

# Attack Strategy – General tips

- Test BAC for all different priviledge levels
- The CTO might have different BAC issues than an employee

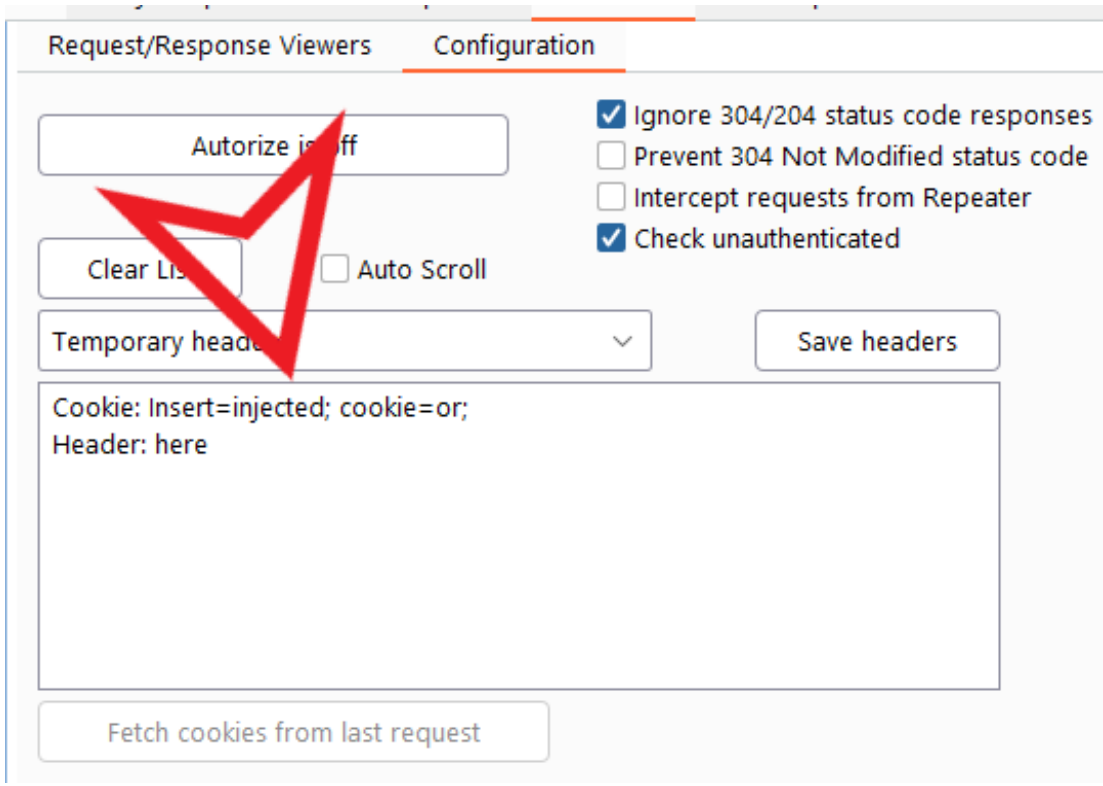
| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| 1 | HR application | | | | | |
| 2 | | | | | | |
| 3 | | Employee | Manager | CEO | CTO | Admin |
| 4 | Create timesheet | | | | | |
| 5 | Complete timesheet | | | | | |
| 6 | Print timesheet | | | | | |
| 7 | Sign timesheet | | | | | |
| 8 | Report | | | | | |
| 9 | Create users | | | | | |
| 10 | Delete users | | | | | |
| 11 | Create user roles | | | | | |
| 12 | Change user roles | | | | | |

# Attack Strategy – Manual

- Sometimes if user can not execute function, front end button is just hidden
  - Javascript function might still work
  - We can execute javascript function via the developer console
- We can just log in as admin and copy & paste URL of functions we should not execute as low priv user
- We can execute request as admin and capture in burp, then send to repeater and paste in low priv user authorization header

# Attack Strategy – Semi-automated

- We can use authorise – free burp extension
  - Log in as low priv user
  - Copy their cookie
  - Paste it in authorise
  - Log in as admin user
  - Activate Authorise
  - See tools chapter for guide




# Attack Strategy – Semi-automated

- Auto repeater
- Match and replace