

OLD DOMINION UNIVERSITY

CYSE 301 CYBERSECURITY TECHNIQUES AND OPERATIONS

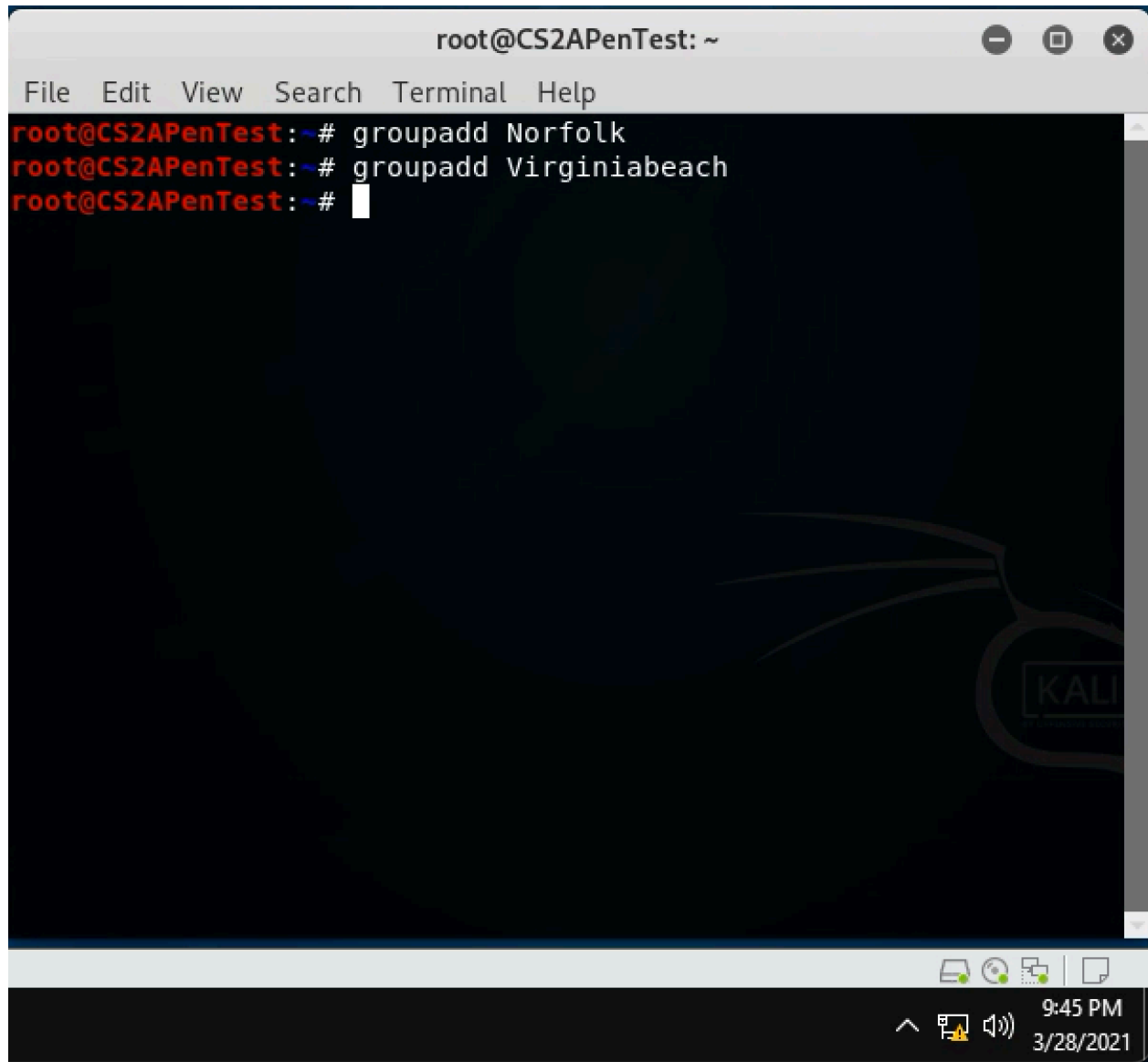
Assignment M4.1: Linux Password Cracking

Joy Diggs

00491693

TASK A

1. Add user groups.



A screenshot of a Kali Linux terminal window. The window title is "root@CS2APenTest: ~". The menu bar includes "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal output shows the following commands and prompts:

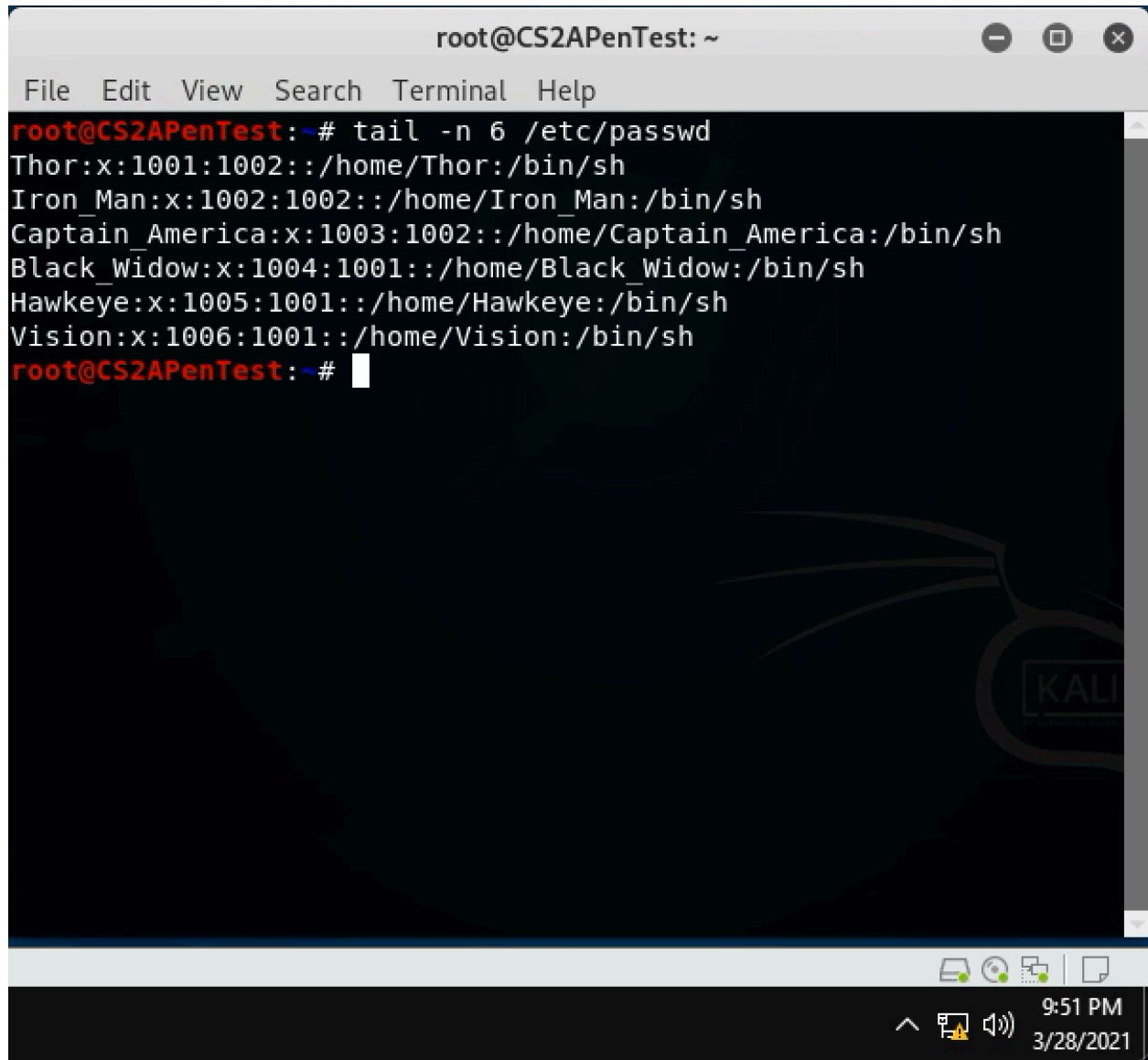
```
root@CS2APenTest:~# groupadd Norfolk
root@CS2APenTest:~# groupadd Virginiabeach
root@CS2APenTest:~#
```

The background of the terminal features a large, faint Kali Linux logo. The system tray at the bottom right shows icons for network, volume, and a clock displaying "9:45 PM 3/28/2021".

Above is the screenshot of my two added groups.

STEP 2

2. The six users added to the group.

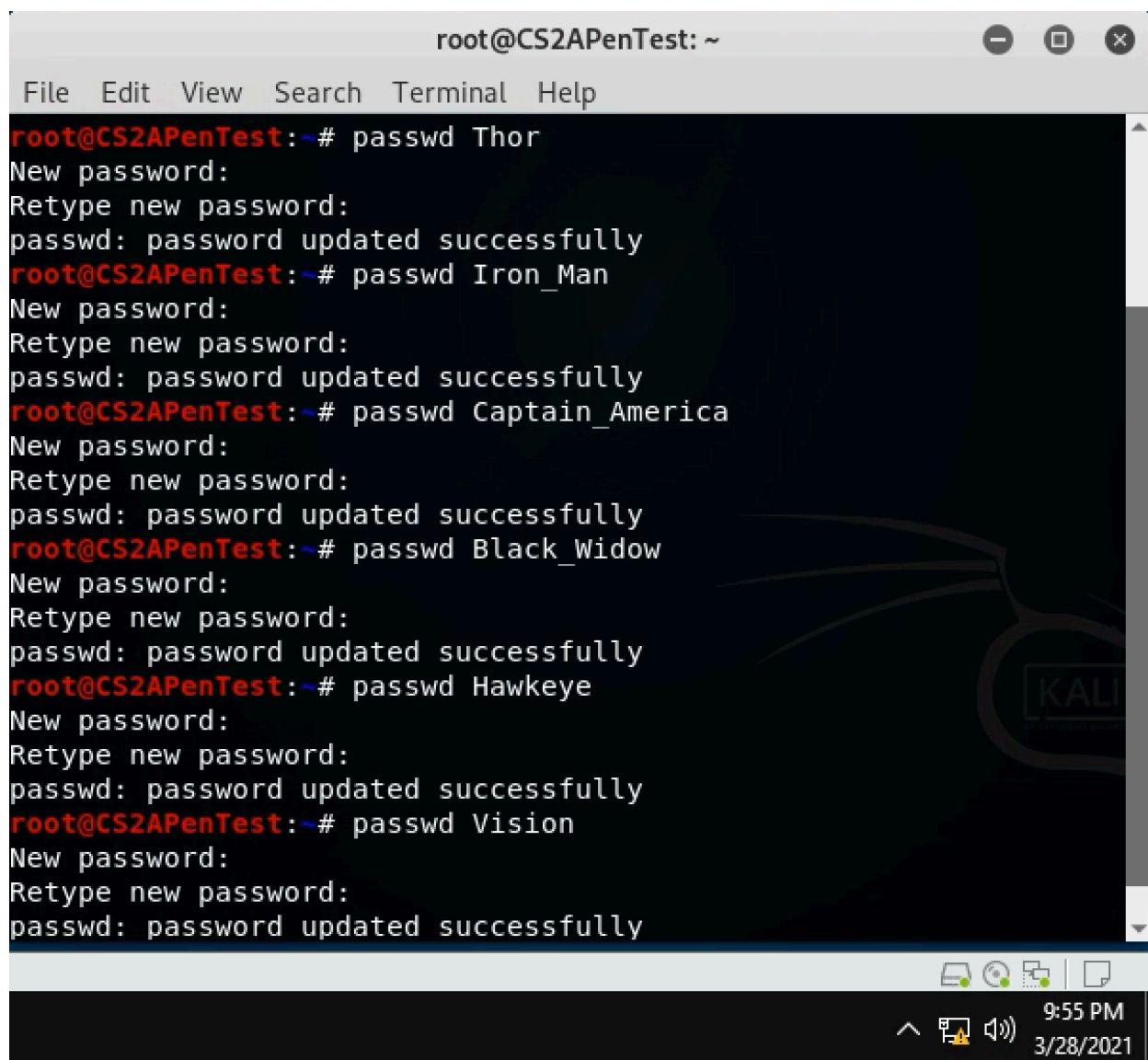
A terminal window titled 'root@CS2APenTest: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the command 'tail -n 6 /etc/passwd' and its output, which lists the last six lines of the /etc/passwd file. The users listed are Thor, Iron_Man, Captain_America, Black_Widow, Hawkeye, and Vision, each with their respective UID, GID, home directory, and shell. The terminal has a dark background with a faint Kali Linux logo. The window's title bar includes standard Linux window controls (minimize, maximize, close). The bottom status bar shows system icons (network, volume, battery) and the date/time '9:51 PM 3/28/2021'.

```
root@CS2APenTest: ~  
File Edit View Search Terminal Help  
root@CS2APenTest:~# tail -n 6 /etc/passwd  
Thor:x:1001:1002::/home/Thor:/bin/sh  
Iron_Man:x:1002:1002::/home/Iron_Man:/bin/sh  
Captain_America:x:1003:1002::/home/Captain_America:/bin/sh  
Black_Widow:x:1004:1001::/home/Black_Widow:/bin/sh  
Hawkeye:x:1005:1001::/home/Hawkeye:/bin/sh  
Vision:x:1006:1001::/home/Vision:/bin/sh  
root@CS2APenTest:~#
```

Above are the users added to the groups.

STEP 3

3. Add passwords to the six users.

A terminal window titled 'root@CS2APenTest: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows a series of password updates for six users. Each update involves typing 'passwd', a prompt for a new password, a retype prompt, and a confirmation message. The users are Thor, Iron_Man, Captain_America, Black_Widow, Hawkeye, and Vision. A Kali Linux logo is visible in the background. The system tray at the bottom shows icons for network, volume, and a clock displaying 9:55 PM on 3/28/2021.

```
root@CS2APenTest: ~  
File Edit View Search Terminal Help  
root@CS2APenTest:~# passwd Thor  
New password:  
Retype new password:  
passwd: password updated successfully  
root@CS2APenTest:~# passwd Iron_Man  
New password:  
Retype new password:  
passwd: password updated successfully  
root@CS2APenTest:~# passwd Captain_America  
New password:  
Retype new password:  
passwd: password updated successfully  
root@CS2APenTest:~# passwd Black_Widow  
New password:  
Retype new password:  
passwd: password updated successfully  
root@CS2APenTest:~# passwd Hawkeye  
New password:  
Retype new password:  
passwd: password updated successfully  
root@CS2APenTest:~# passwd Vision  
New password:  
Retype new password:  
passwd: password updated successfully
```

Above are the passwords that was given to the six users.

STEP 4

4. Crack the passwords with John the ripper.

```
root@CS2APenTest: ~
File Edit View Search Terminal Help
drwxr-xr-x 2 root root 4096 Mar 1 2017 Pictures
drwxr-xr-x 2 root root 4096 Mar 1 2017 Public
drwxr-xr-x 2 root root 4096 Mar 1 2017 Templates
drwxr-xr-x 2 root root 4096 Mar 1 2017 Videos
root@CS2APenTest:~# john lab4shadow.txt --wordlists=rockyou.txt
Created directory: /root/.john
Unknown option: "--wordlists=rockyou.txt"
root@CS2APenTest:~# john lab4shadow.txt --wordlist=rockyou.txt
Using default input encoding: UTF-8
Loaded 6 password hashes with 6 different salts (sha512crypt, crypt(3) $6$ [SHA512 256/256 AVX2 4x])
Cost 1 (iteration count) is 5000 for all loaded hashes
Will run 2 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
123456789 (Iron_Man)
123123 (Thor)
acapulco (Vision)
academic (Hawkeye)
4g 0:00:07:02 2.36% (ETA: 03:01:27) 0.009473g/s 934.3p/s 2159c/s
2159C/s pumpkin93..prince96
Use the "--show" option to display all of the cracked passwords reliably
Session aborted
root@CS2APenTest:~#
```

Above is the passwords that John the ripper cracked.
