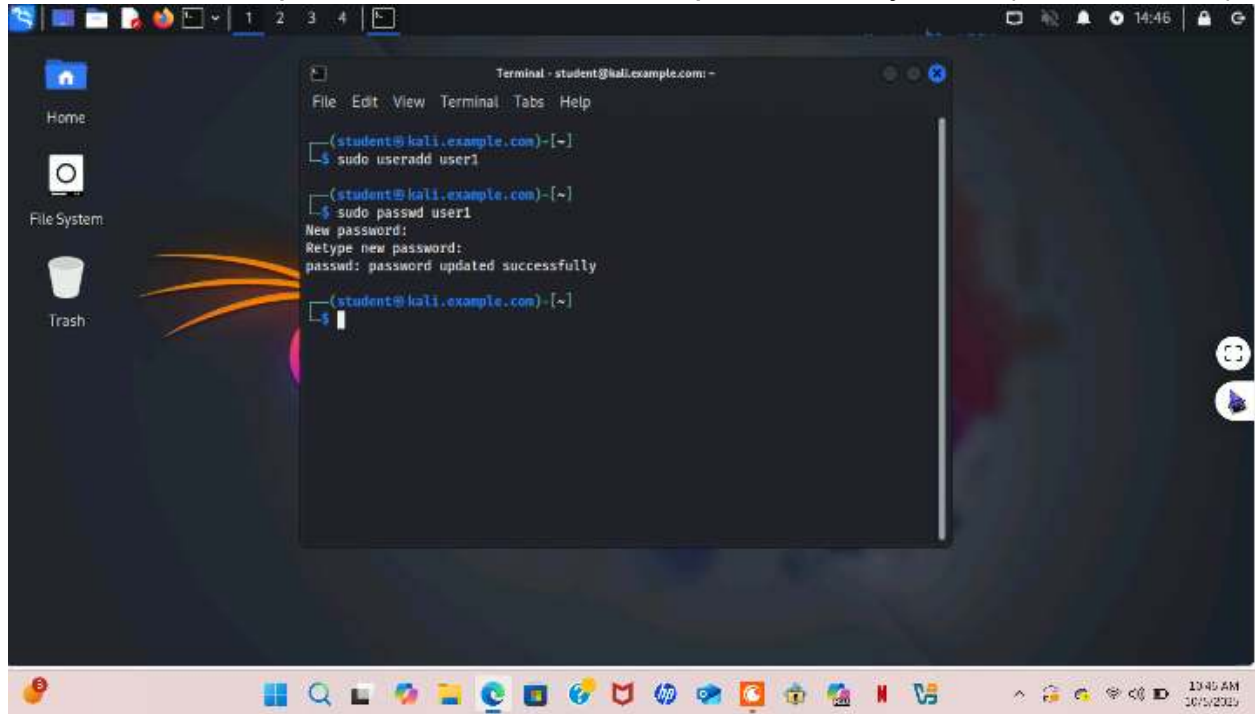


## Task A

### Password Cracking

1. Create 6 users. In your Linux Terminal, set the password for each user that meets the complexity requirement, respectively. You should list the Passwords created for each user. [6 \* 5 = 30 points]

1. For user1, the password should be a simple dictionary word (all lowercase)



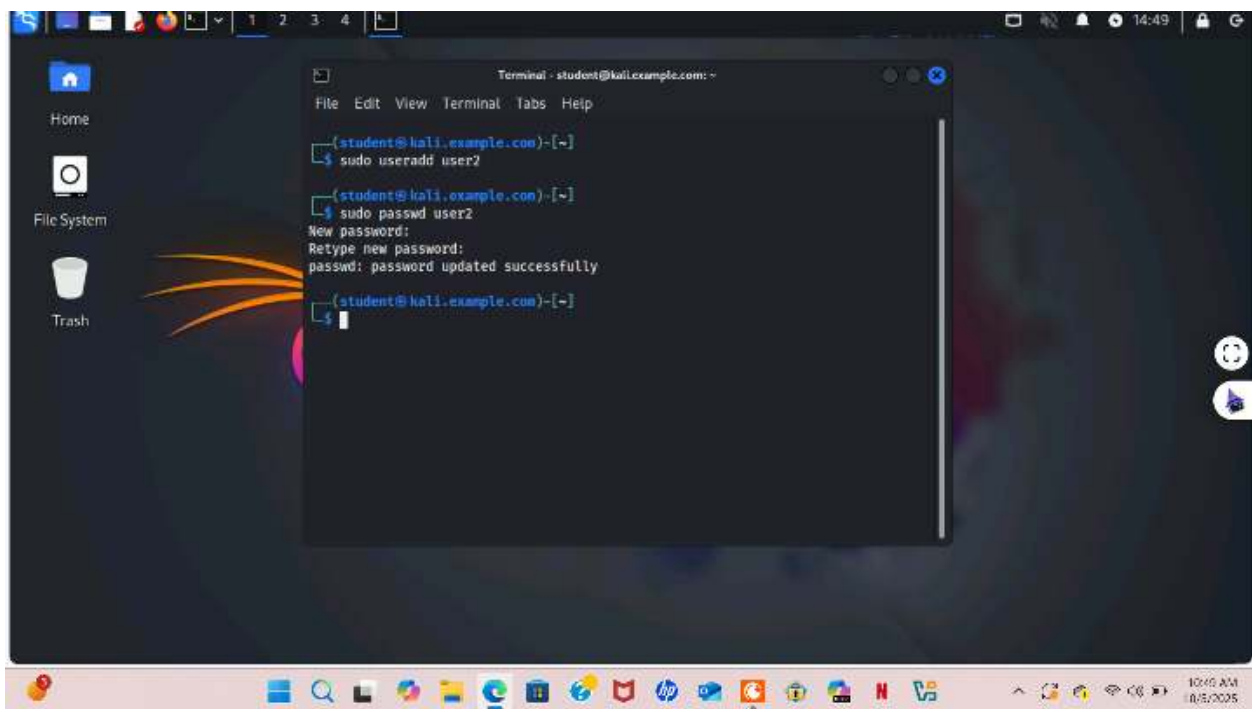
```
Terminal - student@kali.example.com: -
File Edit View Terminal Tabs Help

(student@kali.example.com)-[~]
└─$ sudo useradd user1

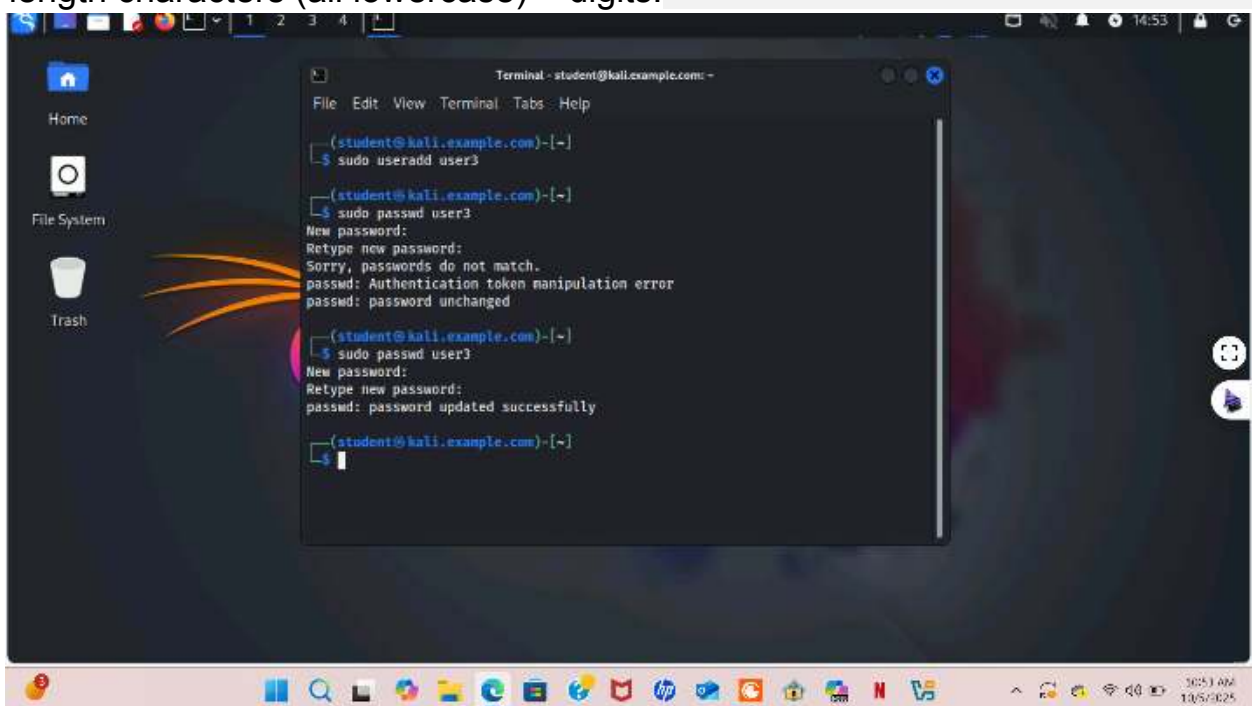
(student@kali.example.com)-[~]
└─$ sudo passwd user1
New password:
Retype new password:
passwd: password updated successfully

(student@kali.example.com)-[~]
└─$
```

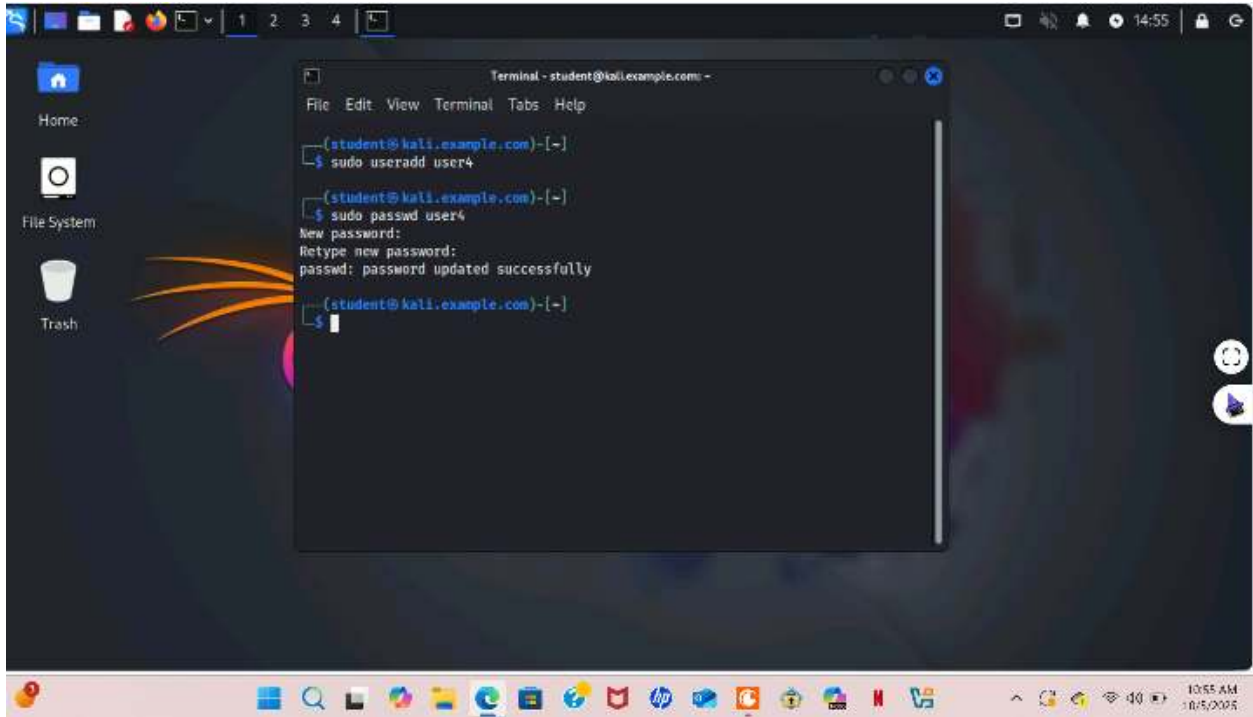
2. For user2, the password should consist of 4 digits.



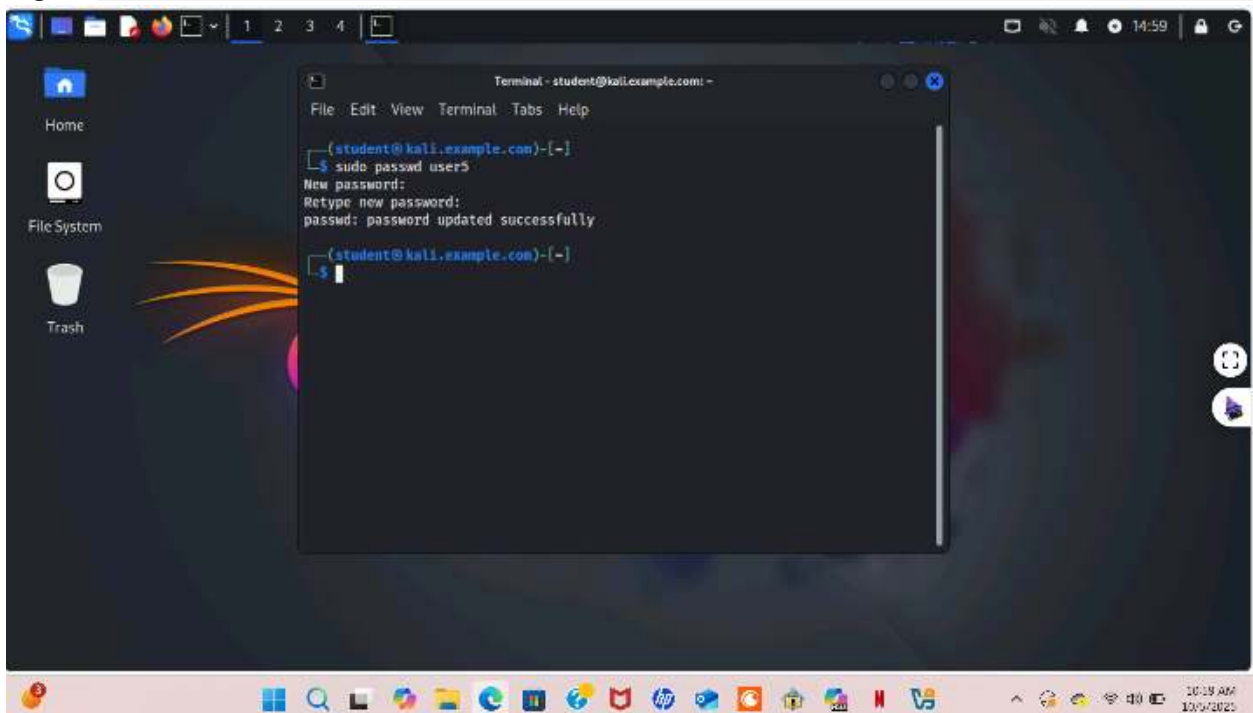
3. For user3, the password should consist of a simple dictionary word of any length length characters (all lowercase) + digits.



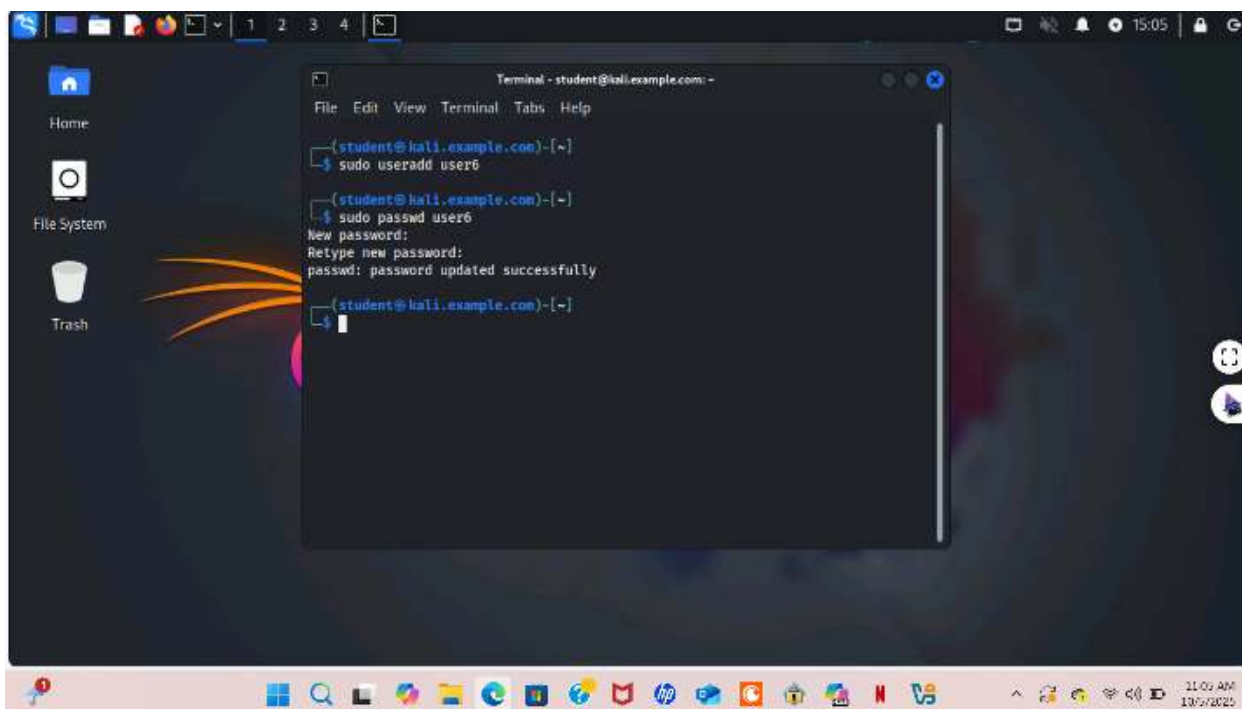
4. For user4, the password should consist of a simple dictionary word, characters (all lower symbols).



5. For user5, the password should consist of a simple dictionary word (all lowercase) + digits.

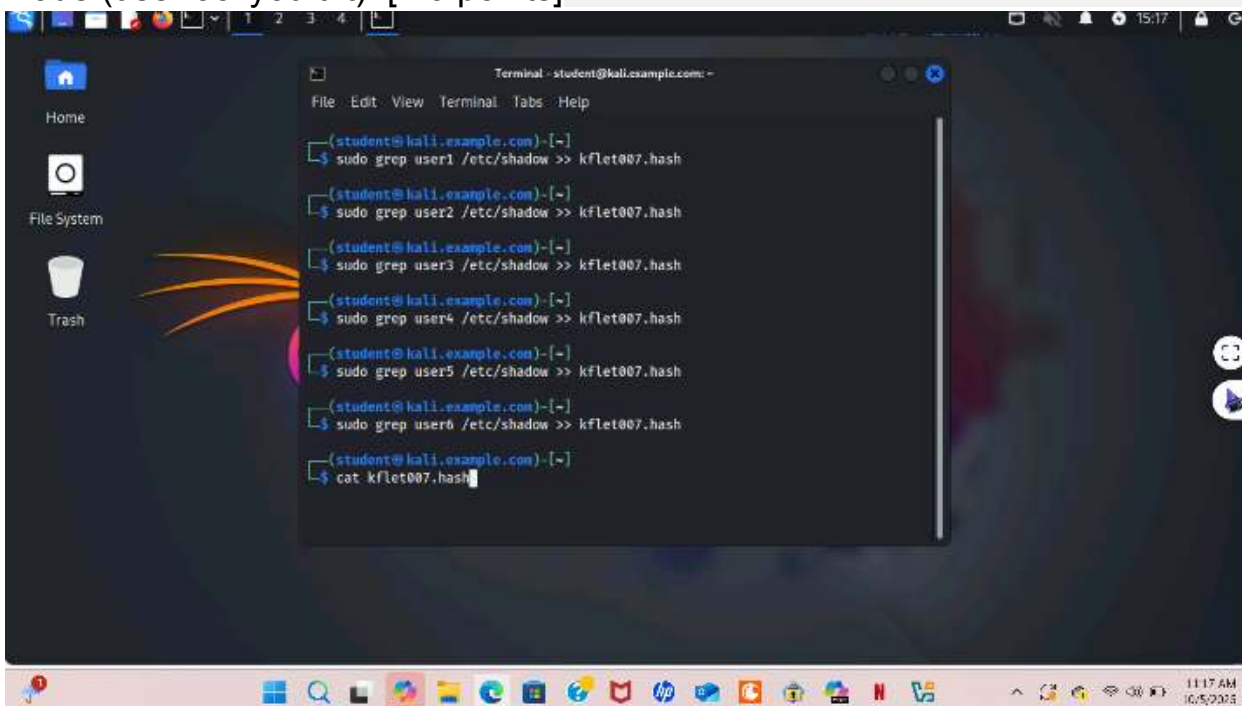


6. For user6, the password should consist of a simple dictionary word (with a combination of symbols).

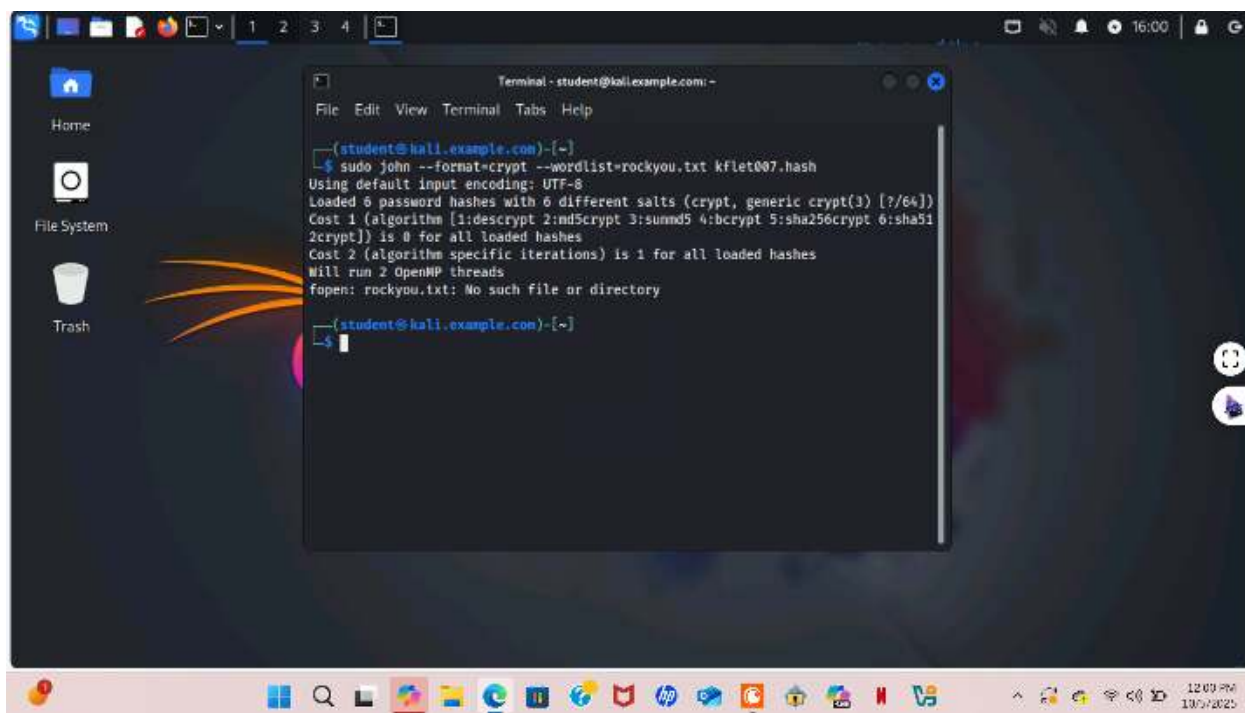


Remember, do not use the passwords for your real-world accounts.

2. Export the above users' hashes into a file named xxx. Hash (replace xxx with your MIDAS name) and use John the Ripper tool to crack their passwords in a wordlist mode (use rockyou.txt). [ 40 points]



3. Keep your John the Ripper cracking for 10 minutes. How many passwords have been Successfully cracked? [30 points]



```
Terminal - student@kali.example.com: ~
File Edit View Terminal Tabs Help

(student@kali.example.com)-[~]
└─$ sudo john --format=crypt --wordlist=rockyou.txt kflet007.hash
Using default input encoding: UTF-8
Loaded 6 password hashes with 6 different salts (crypt, generic crypt(3) [?/64])
Cost 1 (algorithm [1:descrypt 2:md5crypt 3:sunmd5 4:bcrypt 5:sha256crypt 6:sha512crypt]) is 0 for all loaded hashes
Cost 2 (algorithm specific iterations) is 1 for all loaded hashes
Will run 2 OpenMP threads
fopen: rockyou.txt: No such file or directory

(student@kali.example.com)-[~]
└─$
```

In this lab, I learned what it takes to crack passwords and password cracking in general. I learned more sudo, and the password cracking was pretty hard for me at the time, learning John the Ripper and also the sudo grep, which was more challenging for me. This lab in general, was the most fun though learning something I'm guessing a lot of cyber majors find interesting and fun.