

Austin Cupp

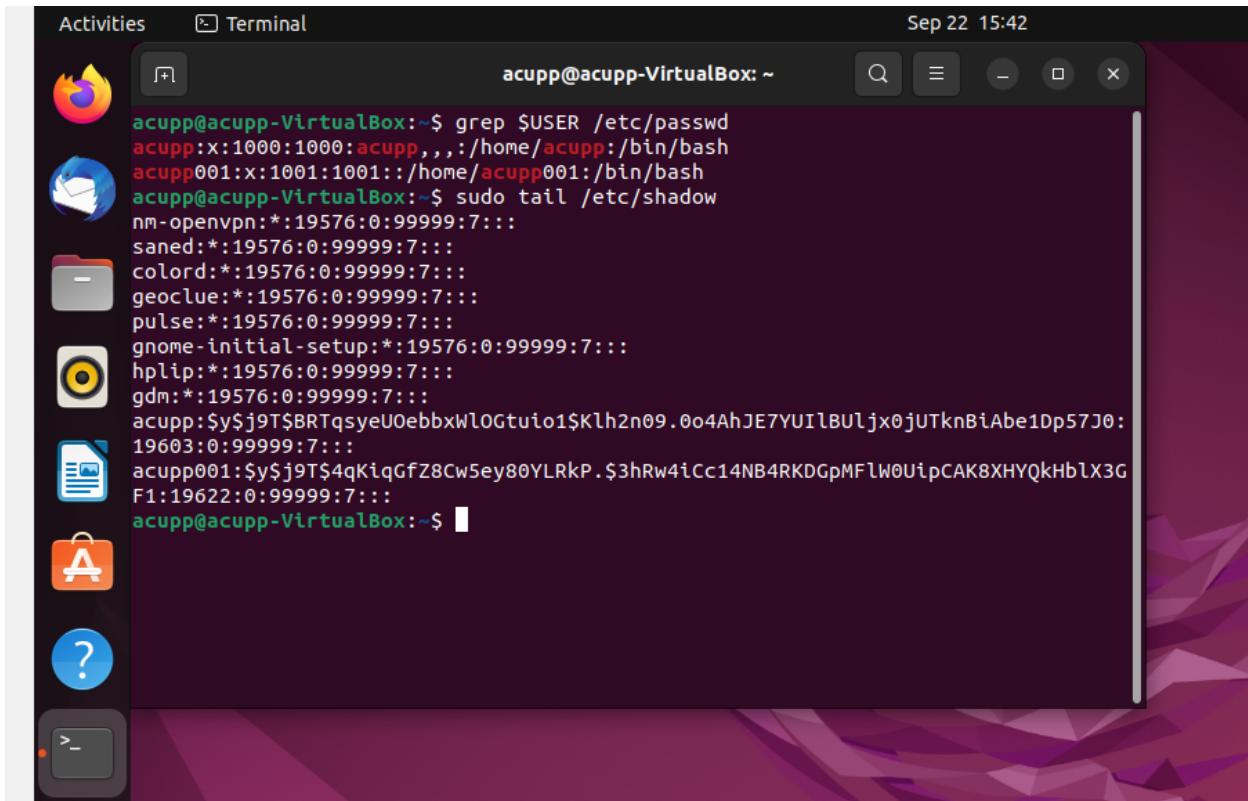
Professor Vatsa

Cyse 270

9/22/2023

#### Assignment #4

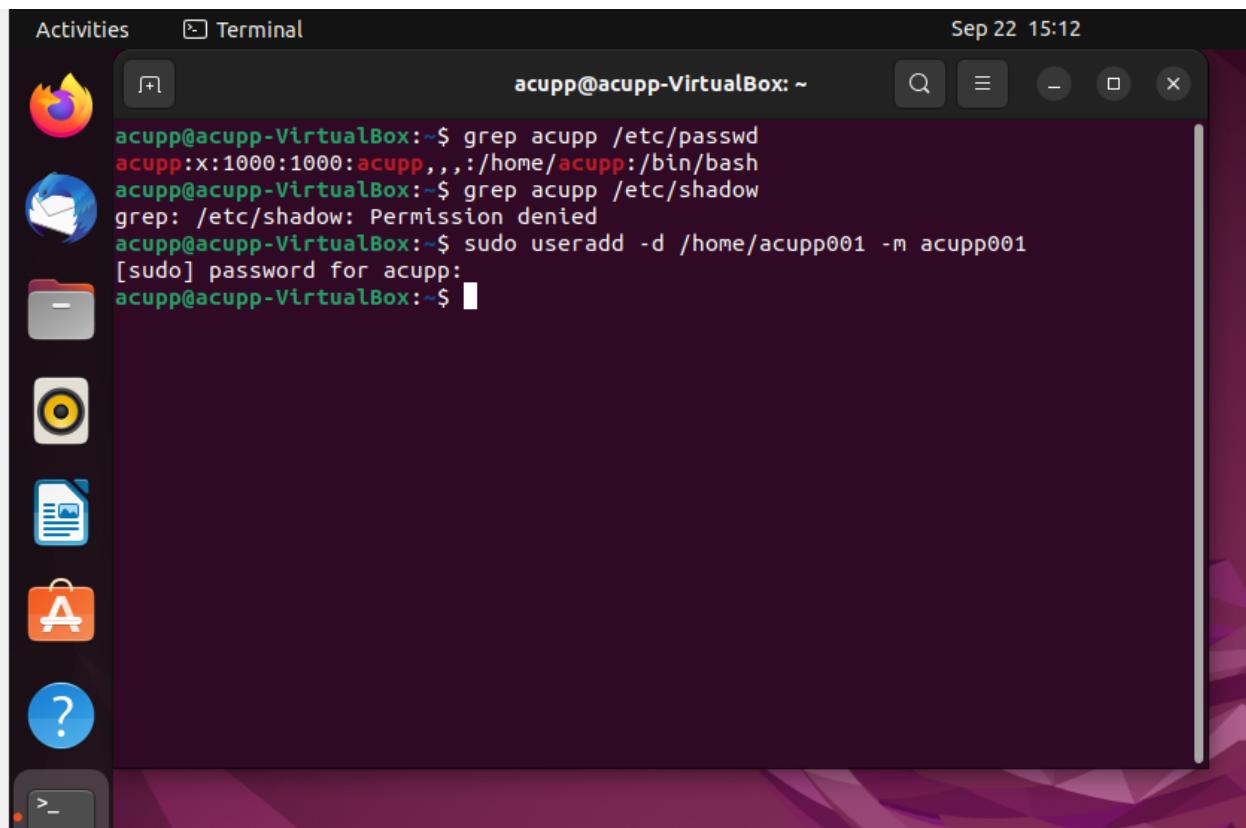
##### TASK A



```
acupp@acupp-VirtualBox:~$ grep $USER /etc/passwd
acupp:x:1000:1000:acupp,,,:/home/acupp:/bin/bash
acupp001:x:1001:1001::/home/acupp001:/bin/bash
acupp@acupp-VirtualBox:~$ sudo tail /etc/shadow
nm-openvpn:*:19576:0:99999:7:::
saned:*:19576:0:99999:7:::
colord:*:19576:0:99999:7:::
geoclue:*:19576:0:99999:7:::
pulse:*:19576:0:99999:7:::
gnome-initial-setup:*:19576:0:99999:7:::
hplip:*:19576:0:99999:7:::
gdm:*:19576:0:99999:7:::
acupp:$y$j9TSBRTqsyeu0ebbxWl0Gtuio1$Klh2n09.0o4AhJE7YUIlBULjx0jUTknBiAbe1Dp57J0:
19603:0:99999:7:::
acupp001:$y$j9T$4qKiqGfZ8Cw5ey80YLRkP.$3hRw4iCc14NB4RKDGpMfLw0UiPcAK8XHYQkHbLX3G
F1:19622:0:99999:7:::
acupp@acupp-VirtualBox:~$
```

Step 1: Used grep \$USER /etc/passwd command to display user account information (including the login shell and home directory)

Step 2: The grep command was giving me a permission denied error, so I had to use sudo tail /etc/shadow command to display user password information (including the encrypted password and password aging) for the current user.

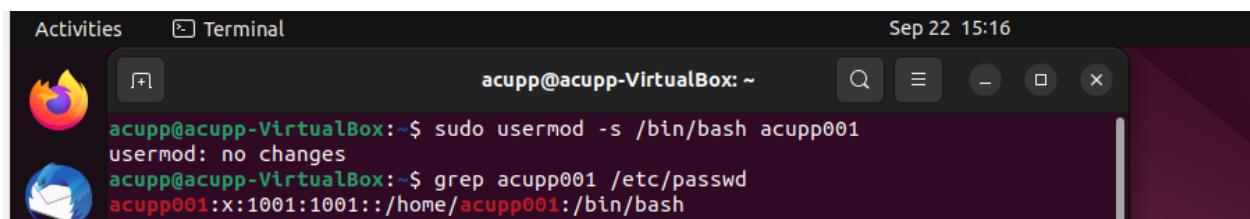


A screenshot of an Ubuntu desktop environment. On the left is a vertical dock with icons for the Dash, Home, Applications, and Help. The main window is a terminal window titled 'Terminal' with the command line 'acupp@acupp-VirtualBox: ~'. The terminal output shows the user checking for existing users ('grep acupp /etc/passwd') and attempting to add a new user ('sudo useradd -d /home/acupp001 -m acupp001'), but it fails because the user already exists. The date and time in the top right corner are 'Sep 22 15:12'.

```
acupp@acupp-VirtualBox:~$ grep acupp /etc/passwd
acupp:x:1000:1000:acupp,,,:/home/acupp:/bin/bash
acupp@acupp-VirtualBox:~$ grep acupp /etc/shadow
grep: /etc/shadow: Permission denied
acupp@acupp-VirtualBox:~$ sudo useradd -d /home/acupp001 -m acupp001
[sudo] password for acupp:
acupp@acupp-VirtualBox:~$
```

Step 3: used sudo useradd -d /home/acupp001 -m acupp001 command to create a new user named acupp001 and explicitly use options to create the home directory.

Step 4: password set as lovelov3

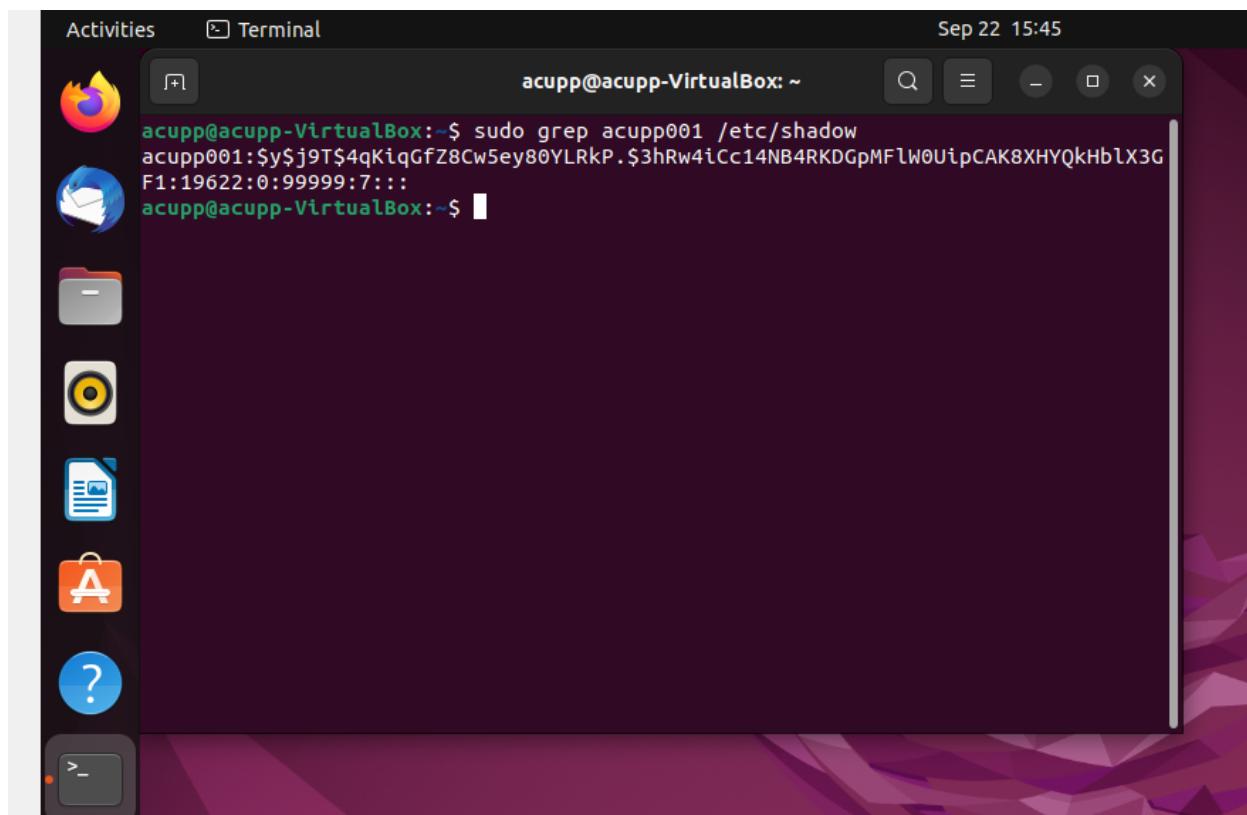


A screenshot of an Ubuntu desktop environment. The terminal window shows the user attempting to change the shell for the user 'acupp001' using 'sudo usermod -s /bin/bash acupp001'. The command fails with the message 'usermod: no changes'. The user then runs 'grep acupp001 /etc/passwd' to verify the change, and it shows the user has been successfully modified. The date and time in the top right corner are 'Sep 22 15:16'.

```
acupp@acupp-VirtualBox:~$ sudo usermod -s /bin/bash acupp001
usermod: no changes
acupp@acupp-VirtualBox:~$ grep acupp001 /etc/passwd
acupp001:x:1001:1001:::/home/acupp001:/bin/bash
```

Step 5: used sudo usermod -s /bin/bash acupp001 command to set bash shell as the default login shell for the new user xxxxx, then verified the change by using grep.

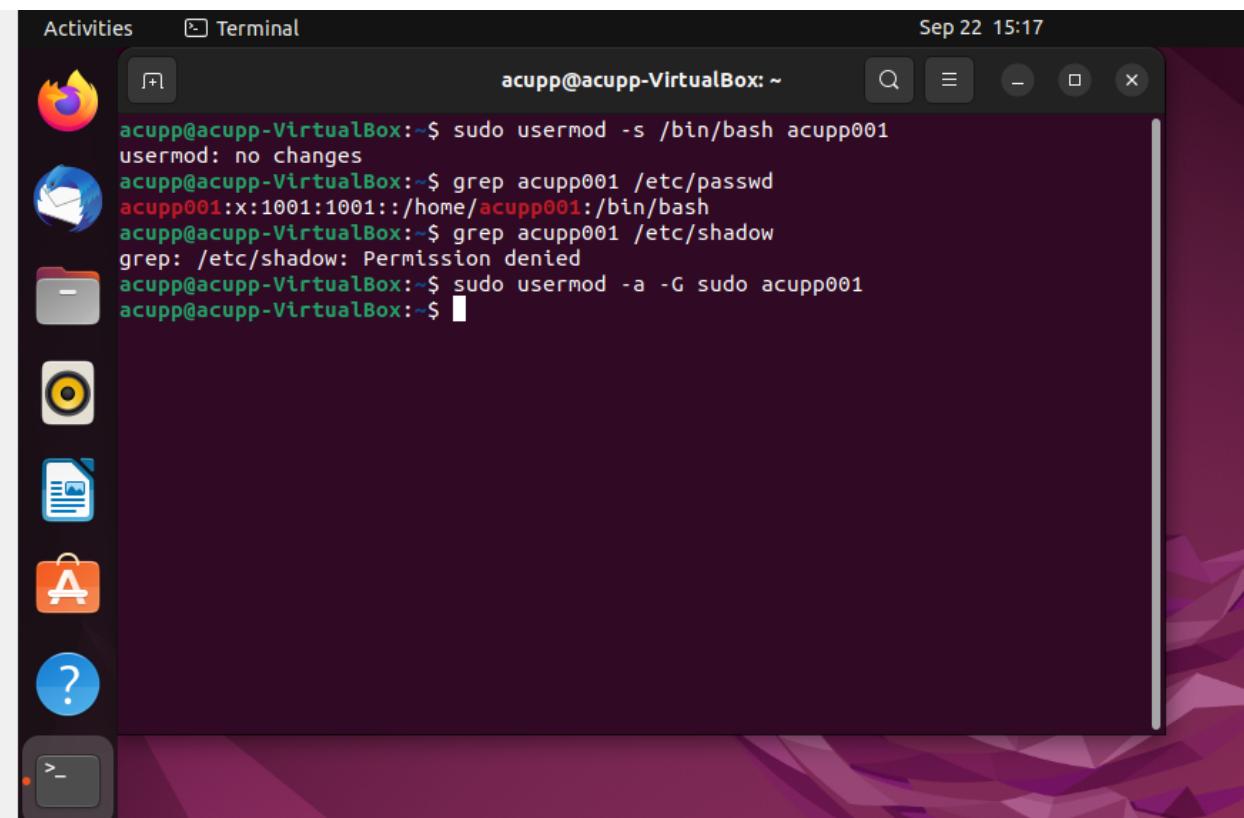
Activities Terminal acupp@acupp-VirtualBox: ~ Sep 22 15:45



```
acupp@acupp-VirtualBox:~$ sudo grep acupp001 /etc/shadow
acupp001:$j9T$4qKi9GfZ8Cw5ey80YLRkP.$3hRw4iCc14NB4RKDGpMF1W0UiPcAK8XHYQkHb1X3G
F1:19622:0:99999:7:::
acupp@acupp-VirtualBox:~$
```

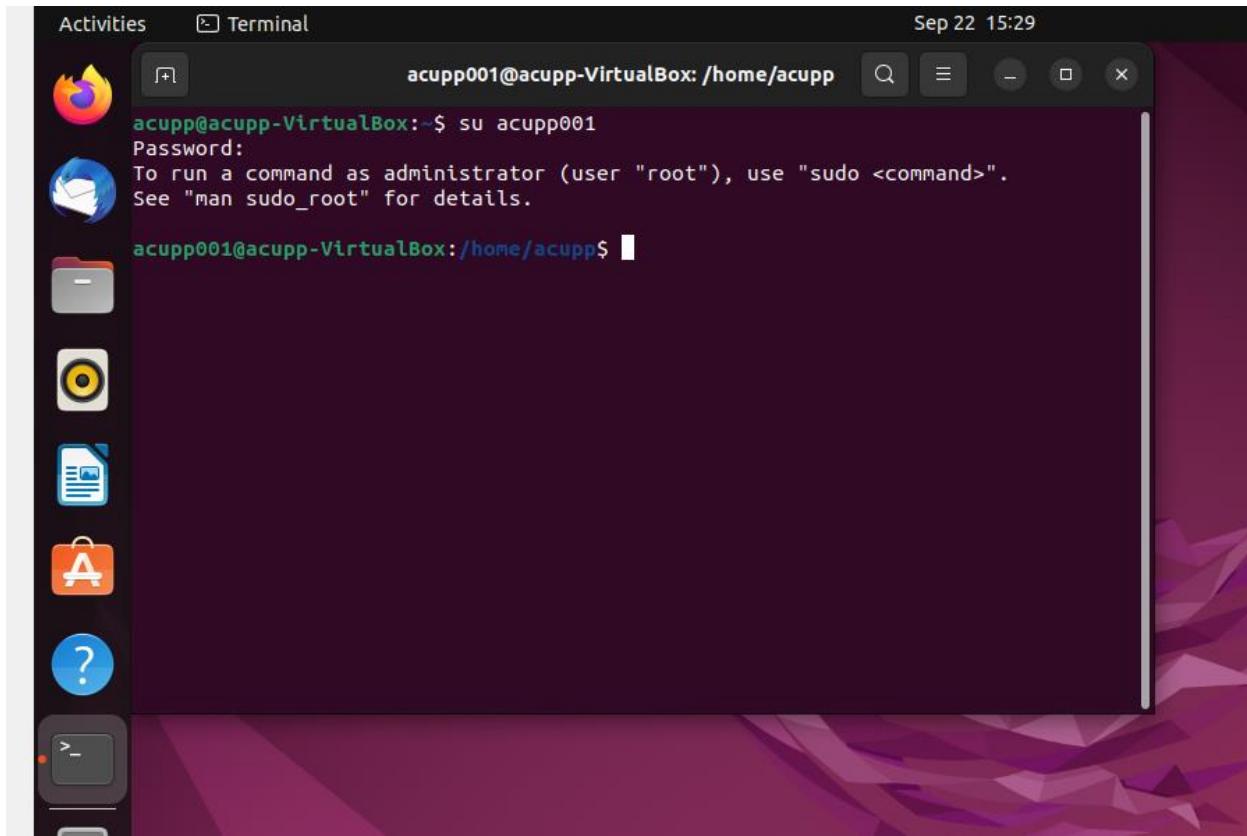
Step 6: Used sudo grep acupp001 /etc/shadow command to display user password information (including the encrypted password and password aging) for the new user acupp001 using grep.

Activities Terminal acupp@acupp-VirtualBox: ~ Sep 22 15:17



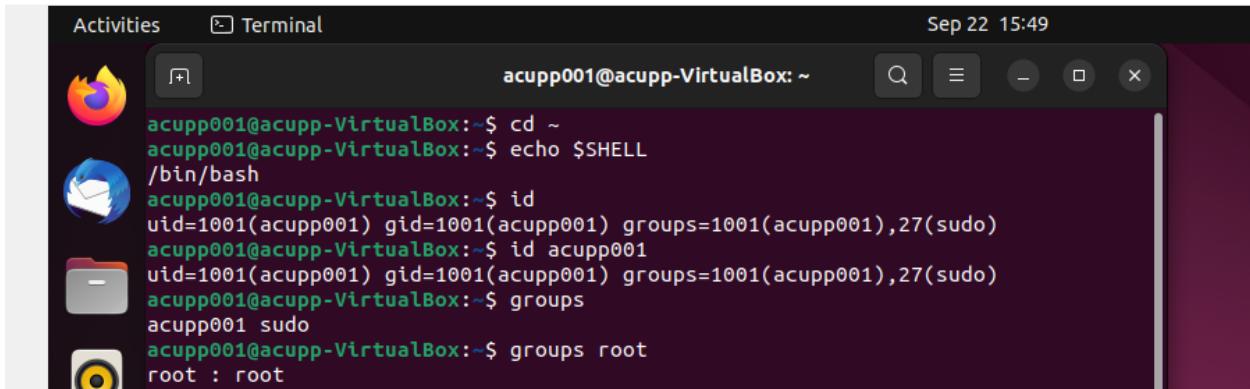
```
acupp@acupp-VirtualBox:~$ sudo usermod -s /bin/bash acupp001
usermod: no changes
acupp@acupp-VirtualBox:~$ grep acupp001 /etc/passwd
acupp001:x:1001:1001::/home/acupp001:/bin/bash
acupp@acupp-VirtualBox:~$ grep acupp001 /etc/shadow
grep: /etc/shadow: Permission denied
acupp@acupp-VirtualBox:~$ sudo usermod -a -G sudo acupp001
acupp@acupp-VirtualBox:~$
```

Step 7: used sudo usermod -a -G sudo acupp001 command to add the new user acupp001 to sudo group without overriding the existing group membership.



Step 8: Used the su acupp001 command to switch to the new users account, password is lovelov3.

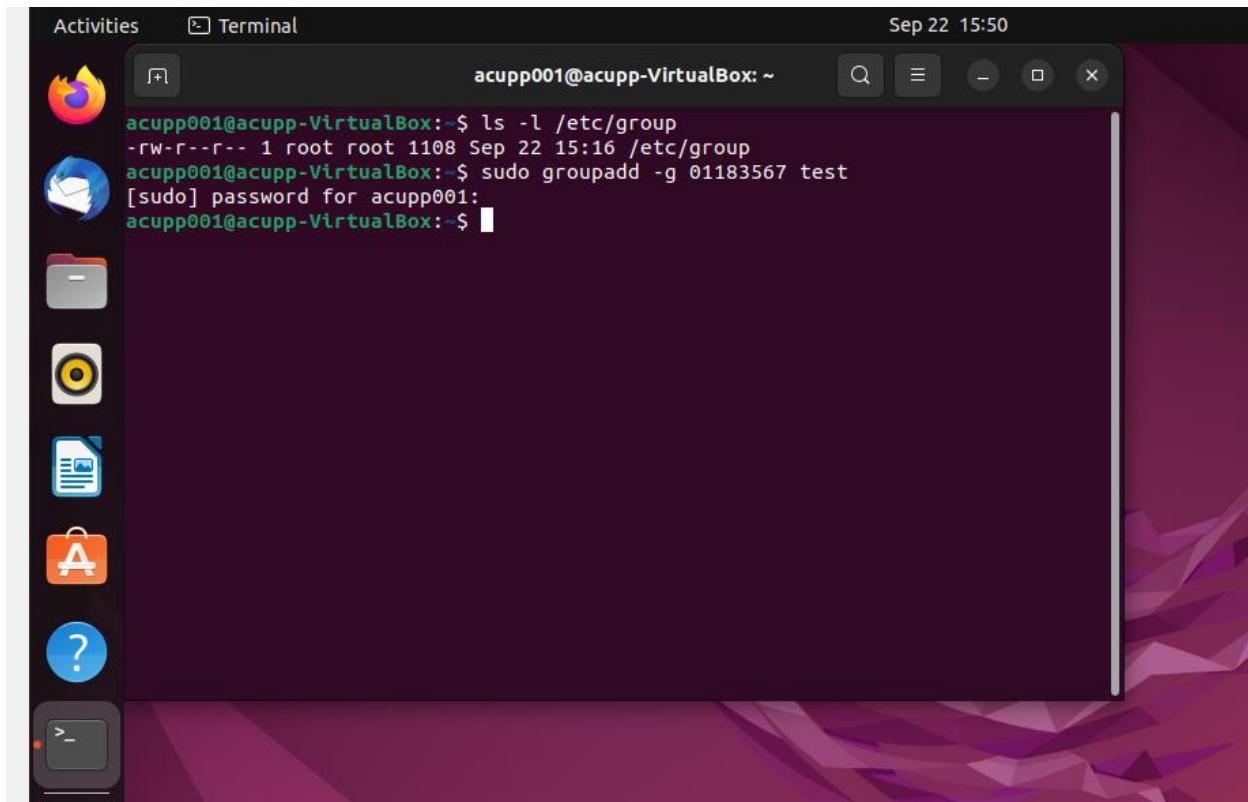
## TASK B



Step 1: Changed back into the home directory and used echo \$SHELL to determine shell I'm using.

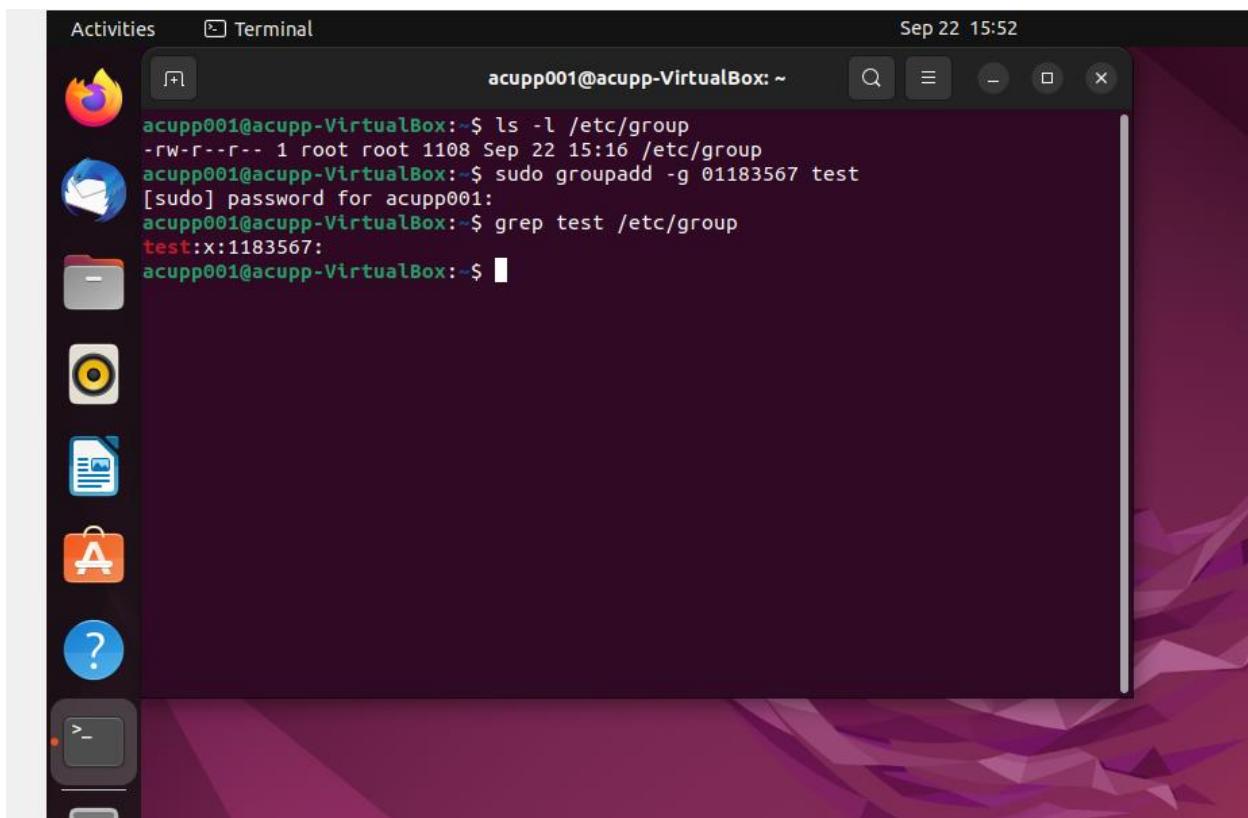
Step 2: Used id to display the current user's ID and group membership.

Step 3: Used groups command to display the group membership of the root account.



Step 4: Used ls -l /etc/group command to determine the user owner and group owner of the /etc/group file.

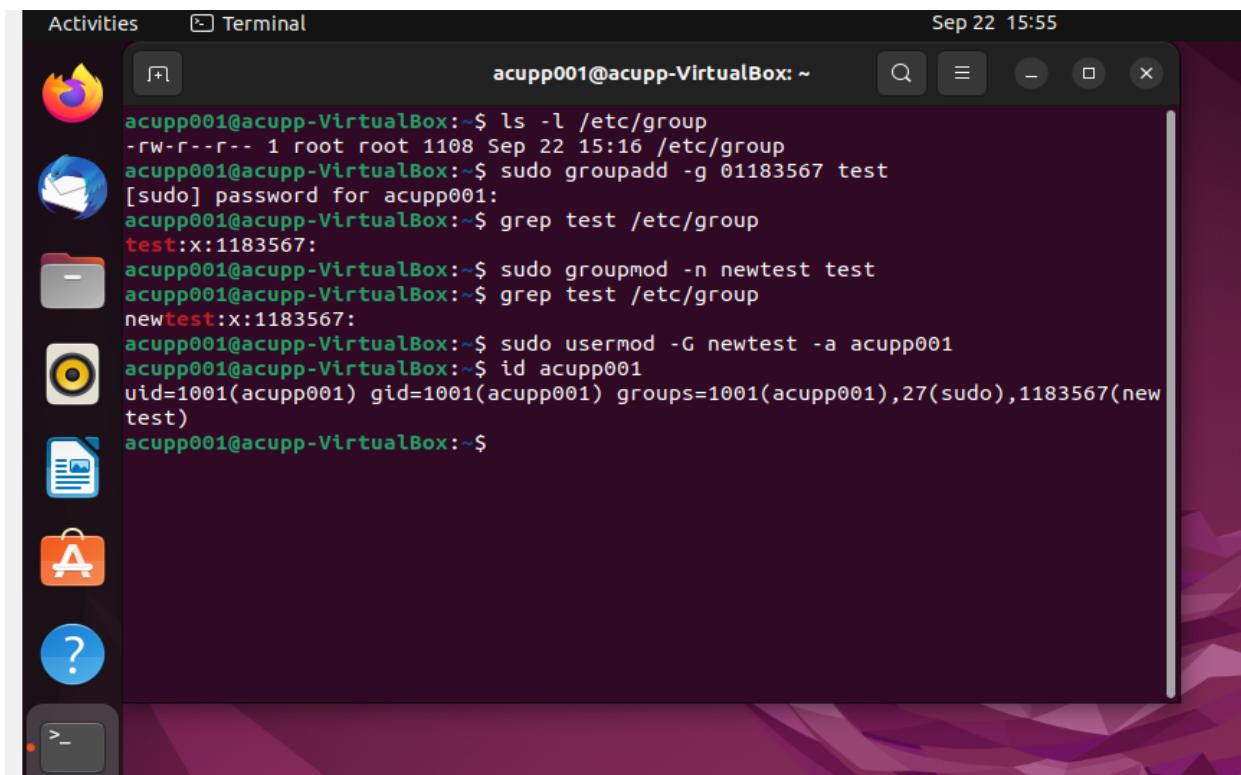
Step 5: used sudo groupadd -g 01183567 test command to create a new group named test and use your UIN as the GID. Password lovelov3



Activities Terminal acupp001@acupp-VirtualBox: ~ Sep 22 15:52

```
acupp001@acupp-VirtualBox:~$ ls -l /etc/group
-rw-r--r-- 1 root root 1108 Sep 22 15:16 /etc/group
acupp001@acupp-VirtualBox:~$ sudo groupadd -g 01183567 test
[sudo] password for acupp001:
acupp001@acupp-VirtualBox:~$ grep test /etc/group
test:x:1183567:
acupp001@acupp-VirtualBox:~$
```

Step 6: used grep test /etc/group command to display the group account information for the test group.



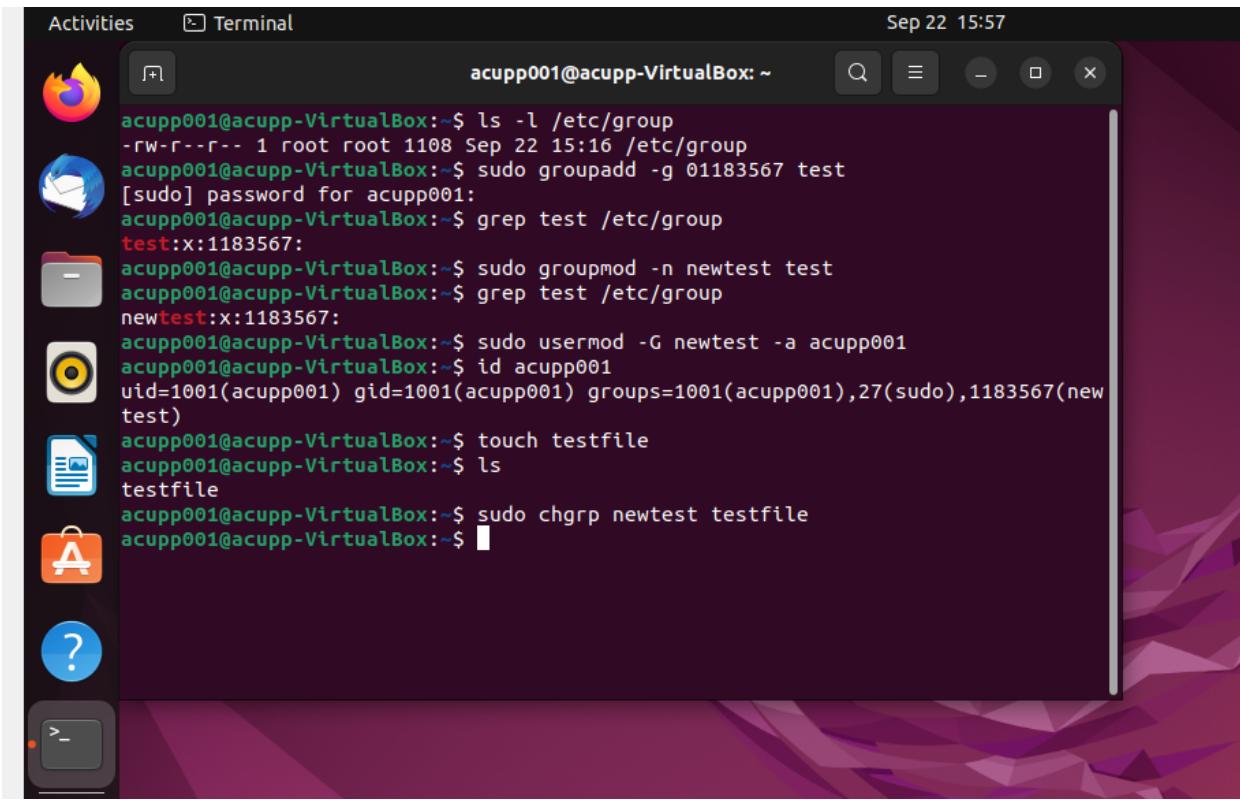
Activities Terminal acupp001@acupp-VirtualBox: ~ Sep 22 15:55

```
acupp001@acupp-VirtualBox:~$ ls -l /etc/group
-rw-r--r-- 1 root root 1108 Sep 22 15:16 /etc/group
acupp001@acupp-VirtualBox:~$ sudo groupadd -g 01183567 test
[sudo] password for acupp001:
acupp001@acupp-VirtualBox:~$ grep test /etc/group
test:x:1183567:
acupp001@acupp-VirtualBox:~$ sudo groupmod -n newtest test
acupp001@acupp-VirtualBox:~$ grep test /etc/group
newtest:x:1183567:
acupp001@acupp-VirtualBox:~$ sudo usermod -G newtest -a acupp001
acupp001@acupp-VirtualBox:~$ id acupp001
uid=1001(acupp001) gid=1001(acupp001) groups=1001(acupp001),27(sudo),1183567(new
test)
acupp001@acupp-VirtualBox:~$
```

Step 7: used sudo groupmod -n newtest test command to Change the group name of the test group to newtest.

Step 8: used sudo usermod -G newtest -a acupp001 command to add the acupp001 as a secondary member of the newtest group without overriding this user's current group membership.

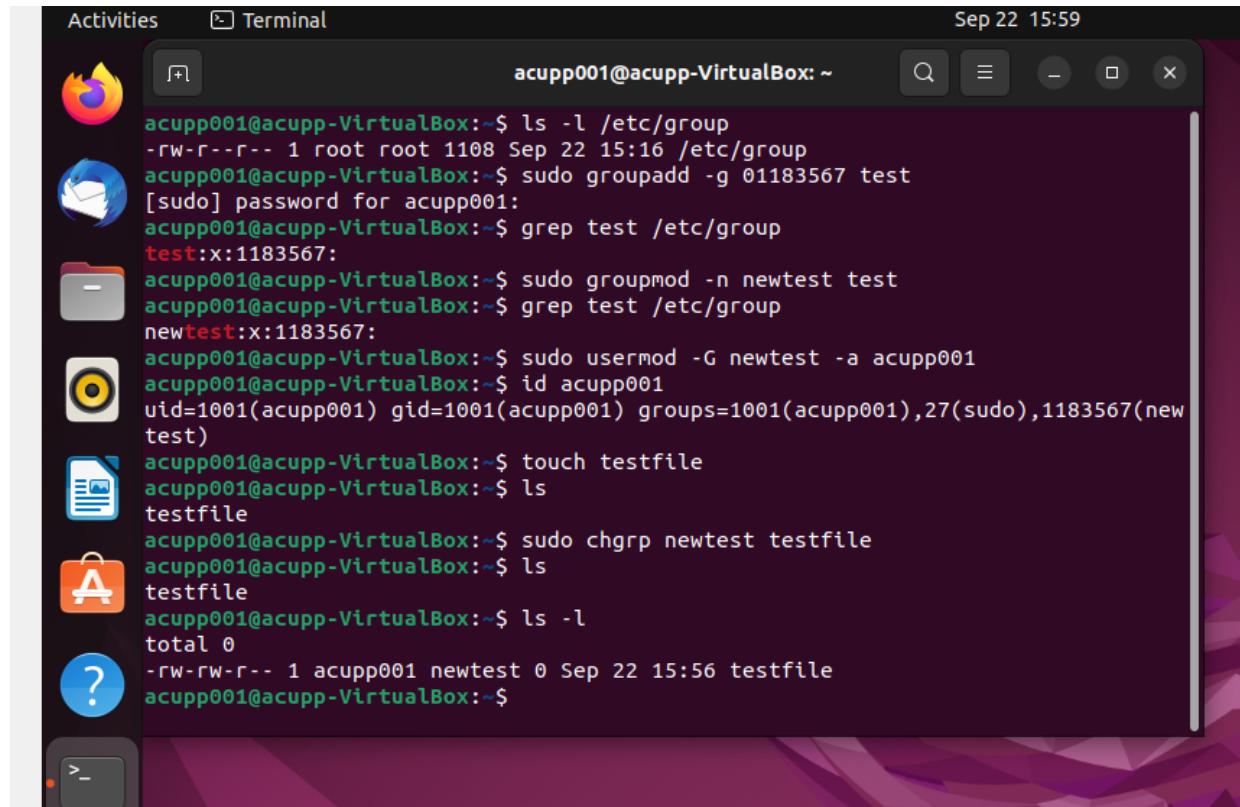
Activities Terminal Sep 22 15:57



```
acupp001@acupp-VirtualBox:~$ ls -l /etc/group
-rw-r--r-- 1 root root 1108 Sep 22 15:16 /etc/group
acupp001@acupp-VirtualBox:~$ sudo groupadd -g 01183567 test
[sudo] password for acupp001:
acupp001@acupp-VirtualBox:~$ grep test /etc/group
test:x:1183567:
acupp001@acupp-VirtualBox:~$ sudo groupmod -n newtest test
acupp001@acupp-VirtualBox:~$ grep test /etc/group
newtest:x:1183567:
acupp001@acupp-VirtualBox:~$ sudo usermod -G newtest -a acupp001
acupp001@acupp-VirtualBox:~$ id acupp001
uid=1001(acupp001) gid=1001(acupp001) groups=1001(acupp001),27(sudo),1183567(new
test)
acupp001@acupp-VirtualBox:~$ touch testfile
acupp001@acupp-VirtualBox:~$ ls
testfile
acupp001@acupp-VirtualBox:~$ sudo chgrp newtest testfile
acupp001@acupp-VirtualBox:~$
```

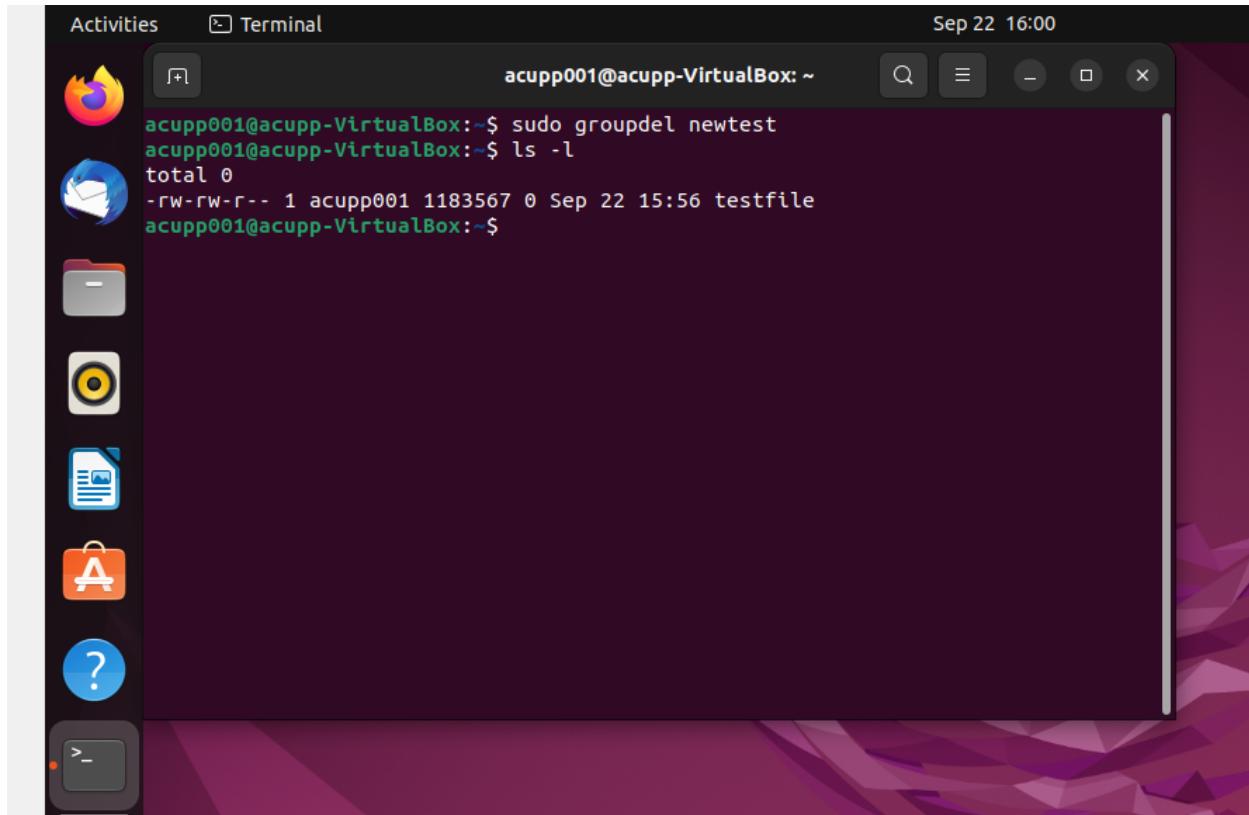
Step 9: used touch testfile command to create a new file testfile in the account's home directory, then used sudo chgrp newtest testfile command to change the group owner to newtest.

Activities Terminal Sep 22 15:59



```
acupp001@acupp-VirtualBox:~$ ls -l /etc/group
-rw-r--r-- 1 root root 1108 Sep 22 15:16 /etc/group
acupp001@acupp-VirtualBox:~$ sudo groupadd -g 01183567 test
[sudo] password for acupp001:
acupp001@acupp-VirtualBox:~$ grep test /etc/group
test:x:1183567:
acupp001@acupp-VirtualBox:~$ sudo groupmod -n newtest test
acupp001@acupp-VirtualBox:~$ grep test /etc/group
newtest:x:1183567:
acupp001@acupp-VirtualBox:~$ sudo usermod -G newtest -a acupp001
acupp001@acupp-VirtualBox:~$ id acupp001
uid=1001(acupp001) gid=1001(acupp001) groups=1001(acupp001),27(sudo),1183567(new
test)
acupp001@acupp-VirtualBox:~$ touch testfile
acupp001@acupp-VirtualBox:~$ ls
testfile
acupp001@acupp-VirtualBox:~$ sudo chgrp newtest testfile
acupp001@acupp-VirtualBox:~$ ls
testfile
acupp001@acupp-VirtualBox:~$ ls -l
total 0
-rw-rw-r-- 1 acupp001 newtest 0 Sep 22 15:56 testfile
acupp001@acupp-VirtualBox:~$
```

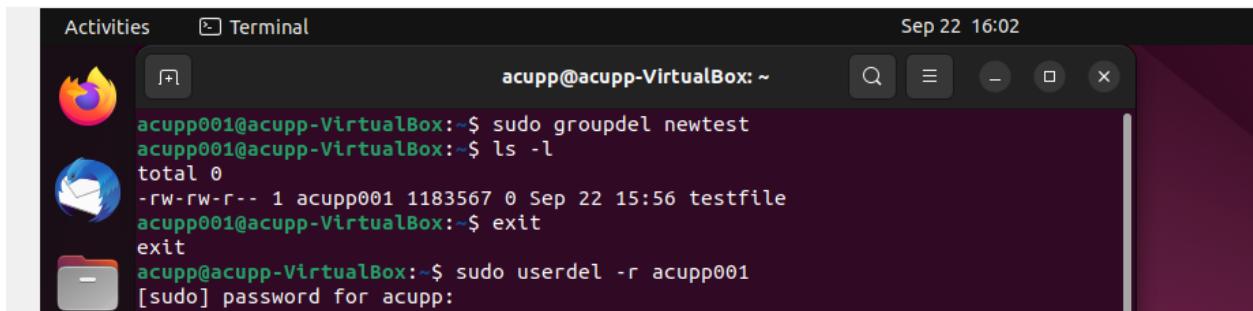
Step 10: used ls -l command to display the user owner and group owner information of the file testfile.



A screenshot of an Ubuntu desktop environment. On the left is a dock with icons for the Dash, Home, Applications, and Help. The main window is a terminal window titled 'Terminal' with the command line 'acupp001@acupp-VirtualBox: ~'. The terminal shows the following output:

```
acupp001@acupp-VirtualBox:~$ sudo groupdel newtest
acupp001@acupp-VirtualBox:~$ ls -l
total 0
-rw-rw-r-- 1 acupp001 1183567 0 Sep 22 15:56 testfile
acupp001@acupp-VirtualBox:~$
```

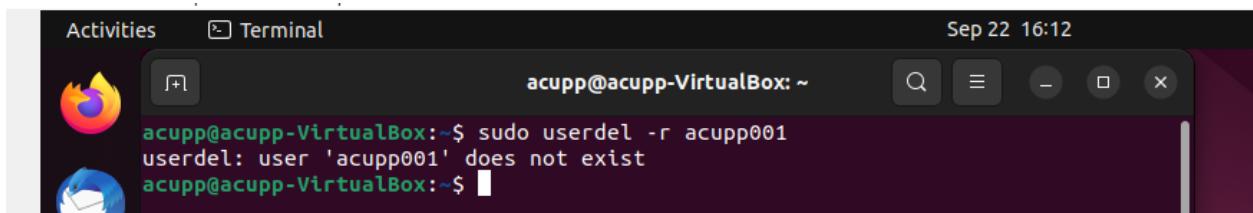
Step 11: Used sudo groupdel newtest command to delete the newtest group and used ls -l to repeat the previous step. I found that that name “newtest” is no longer showing up as the group owner, but the GID for newtest which is my UIN 01183567 still is showing up.



A screenshot of an Ubuntu desktop environment. The terminal window shows the following output:

```
acupp001@acupp-VirtualBox:~$ sudo groupdel newtest
acupp001@acupp-VirtualBox:~$ ls -l
total 0
-rw-rw-r-- 1 acupp001 1183567 0 Sep 22 15:56 testfile
acupp001@acupp-VirtualBox:~$ exit
acupp@acupp-VirtualBox:~$ sudo userdel -r acupp001
[sudo] password for acupp:
```

Step 12 part 1: Used the exit command to exit acupp001, then used sudo userdel -r acupp001 to delete acupp001 and the home directory. I then entered in my password.



A screenshot of an Ubuntu desktop environment. The terminal window shows the following output:

```
acupp@acupp-VirtualBox:~$ sudo userdel -r acupp001
userdel: user 'acupp001' does not exist
acupp@acupp-VirtualBox:~$
```

Step 12 part 2: Attempting to use the command again reveals that the user does not exist and has been deleted.