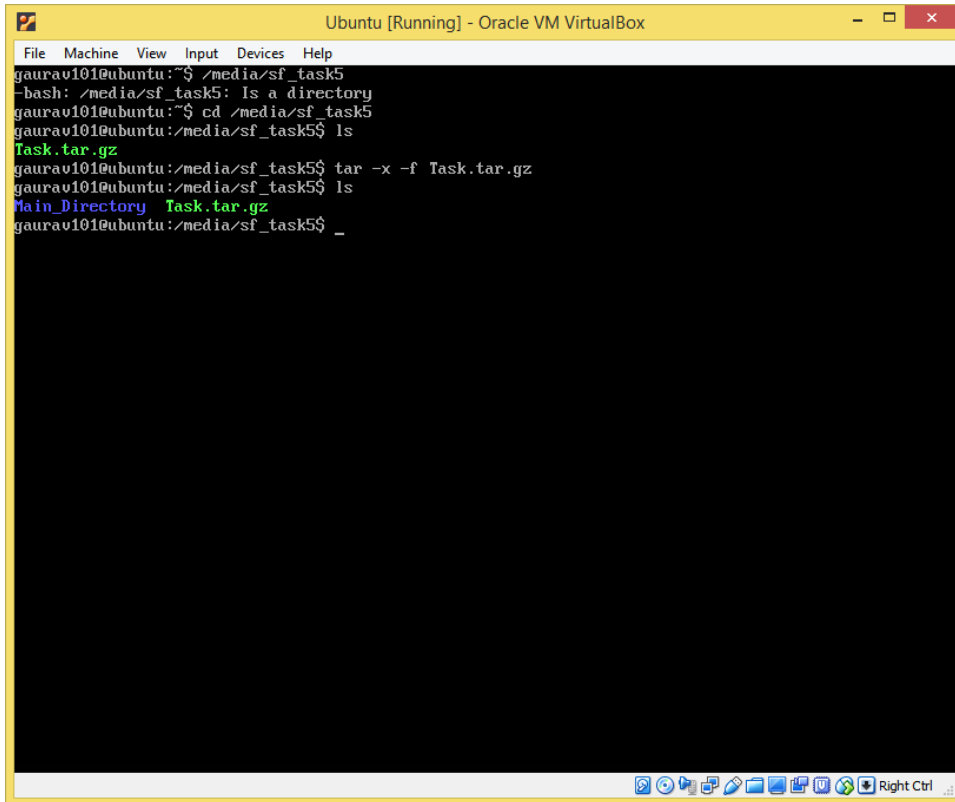


COGNIZANCE CLUB TASK

TASK-5



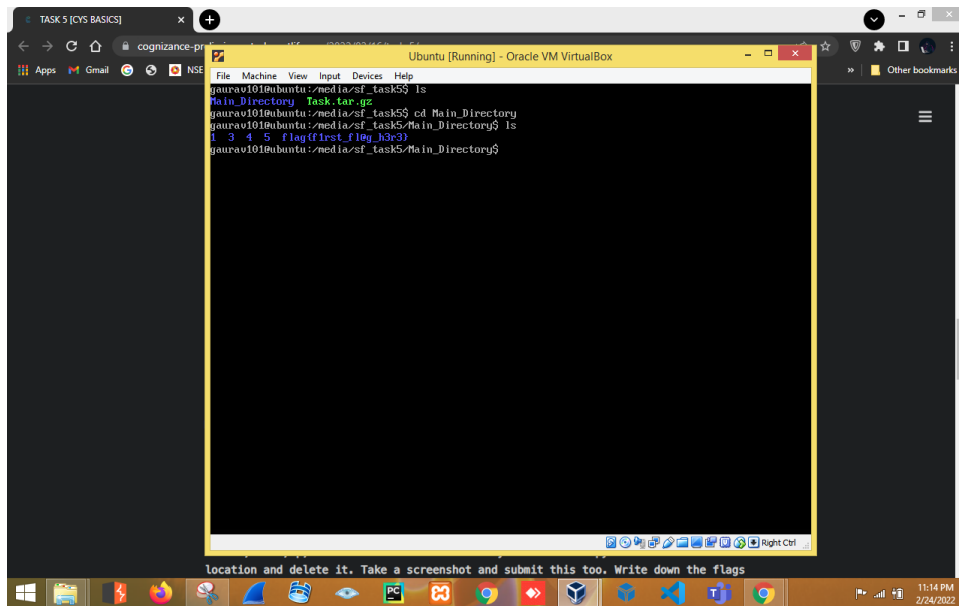
```
gaurav101@ubuntu:~$ cd /media/sf_task5
-bash: /media/sf_task5: Is a directory
gaurav101@ubuntu:~$ cd /media/sf_task5
gaurav101@ubuntu:/media/sf_task5$ ls
Task.tar.gz
gaurav101@ubuntu:/media/sf_task5$ tar -x -f Task.tar.gz
gaurav101@ubuntu:/media/sf_task5$ ls
Main_Directory Task.tar.gz
gaurav101@ubuntu:/media/sf_task5$ _
```

In the first command I am accessing the shared folder named “task5” in the VM which is located inside the media directory.

In the second command, I am unzipping the .tar folder with the help of command

” tar -x -f <filename.tar.gz>”

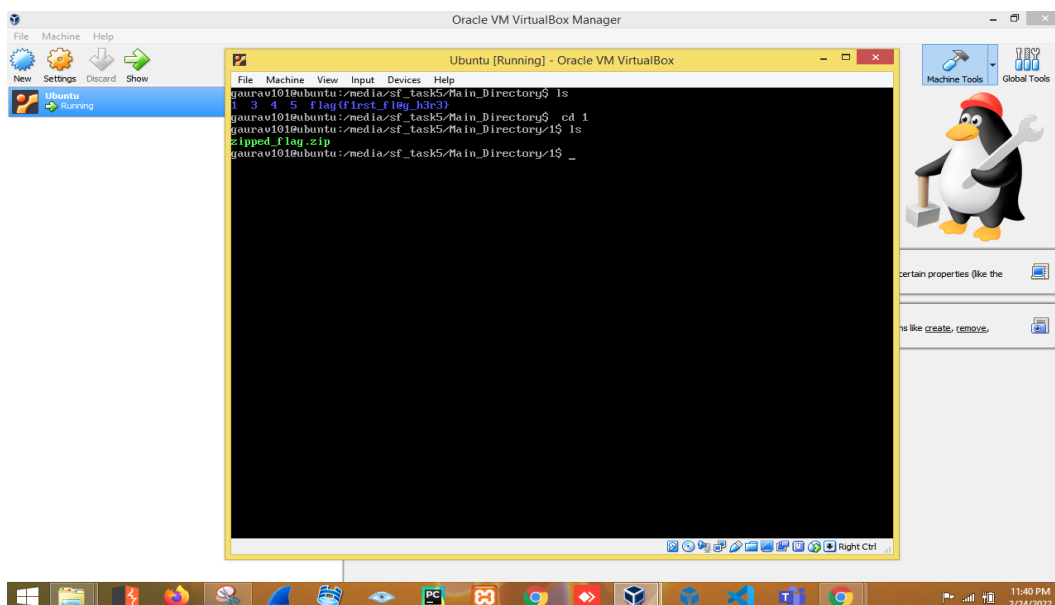
In the third command, I am listing the content of the folder using “ls” command.



Now getting inside the directory named “Main_Directory” using command “cd <Directory name>”

“ls” command is used to display the content of the directory named “Main_Directory”.

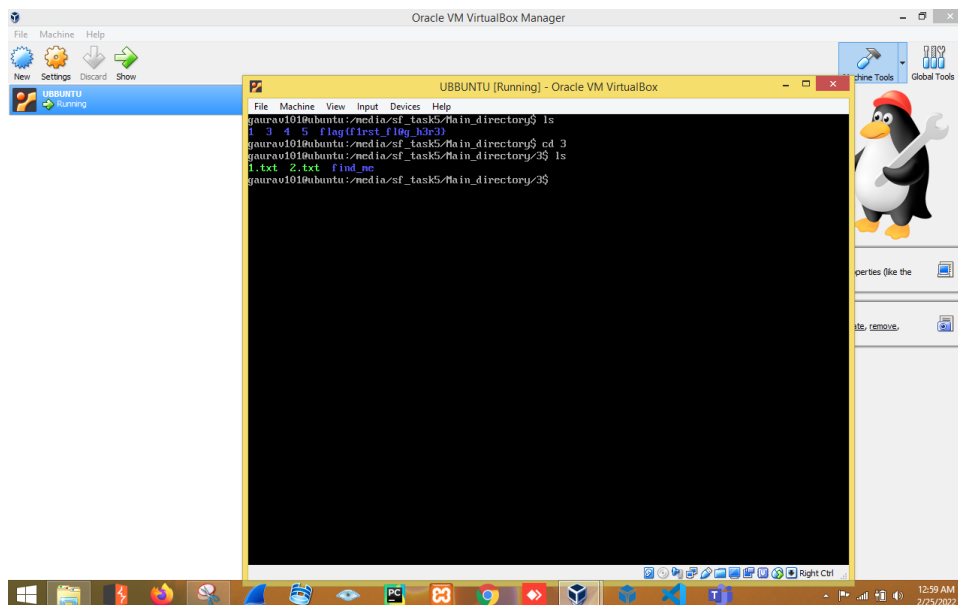
BLUE colour represents the directory, so we are getting inside each Sub-directory to find the flag.



Here, we are getting inside the sub-directories using command “cd <directory name>”

Inside the directory named “1” there is a Zipp file so unzipping that zip file using command “unzip <Filename.zip>”

NOTE: unzip package doesn’t come pre-installed with many Linux distro so install the package with the command “apt-get install unzip” to install the unzip package.

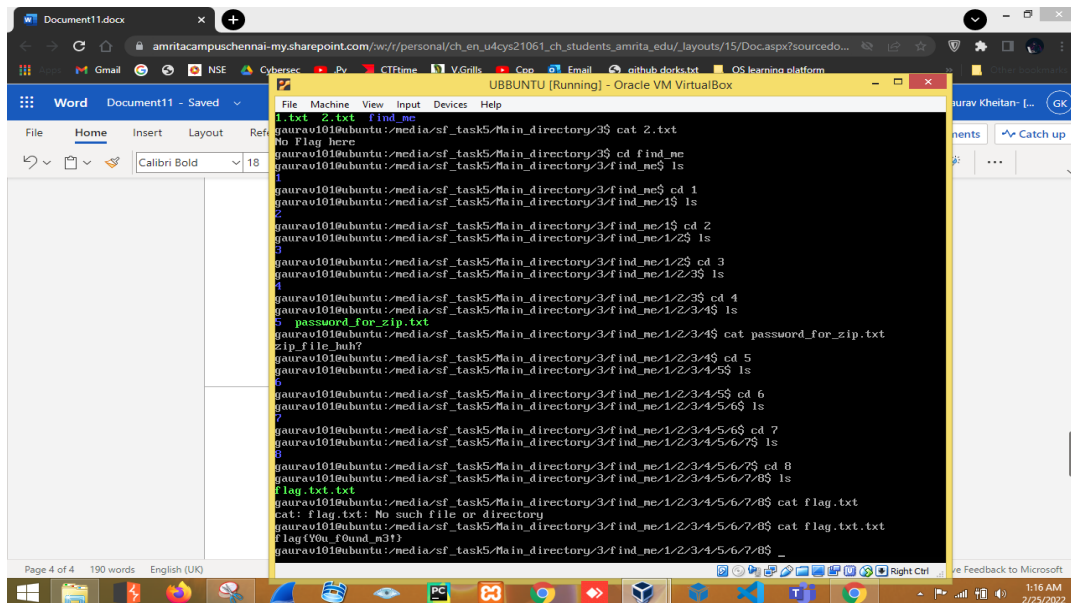


Getting inside the directory named “3” using command “cd 3”.

Inside the directory there are some text files and some sub-directories.

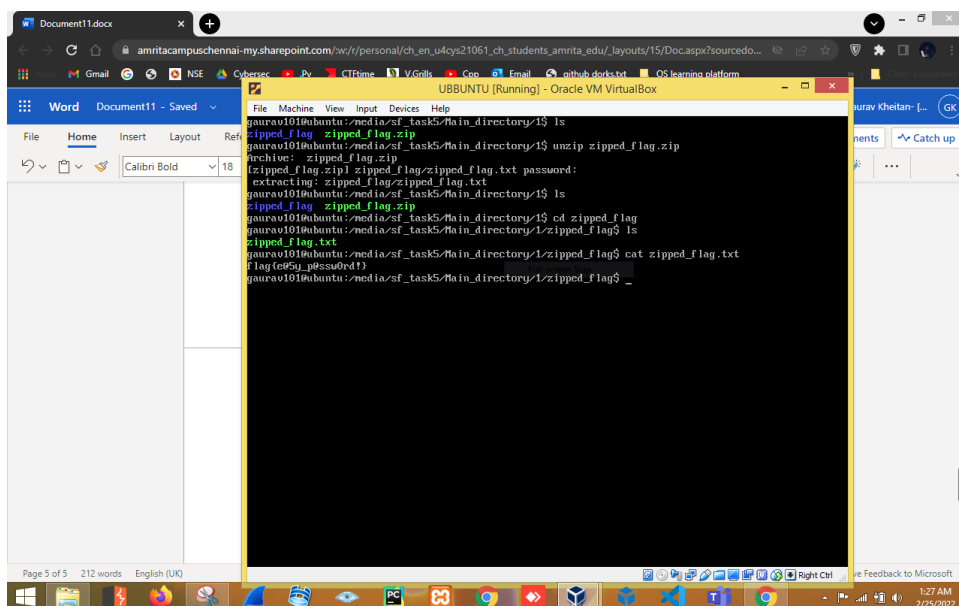
Displaying the content of the text file named 1.txt using command “cat <filename>”

Also, some text file contains the flag



```
1.txt 2.txt find_ne
gaurav101@ubuntu:/media/sf_task5/Main_directory/3$ cat 2.txt
No Flag here
gaurav101@ubuntu:/media/sf_task5/Main_directory/3$ cd find_ne$ ls
4
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne$ cd 1
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1$ ls
2
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1$ cd 2
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2$ ls
3
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2$ cd 3
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3$ ls
4
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3$ cd 4
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4$ ls
5 password_for_zip.txt
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4$ cat password_for_zip.txt
zip_file_huh?
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4$ cd 5
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5$ ls
6
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5$ cd 6
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5/6$ ls
7
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5/6$ cd 7
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5/6/7$ ls
8
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5/6/7$ cd 8
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5/6/7/8$ ls
flag.txt.txt
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5/6/7/8$ cat flag.txt
cat: flag.txt: No such file or directory
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5/6/7/8$ cat flag.txt.txt
flag{Y0u_f0und_m3!}
gaurav101@ubuntu:/media/sf_task5/Main_directory/3/find_ne/1/2/3/4/5/6/7/8$ _
```

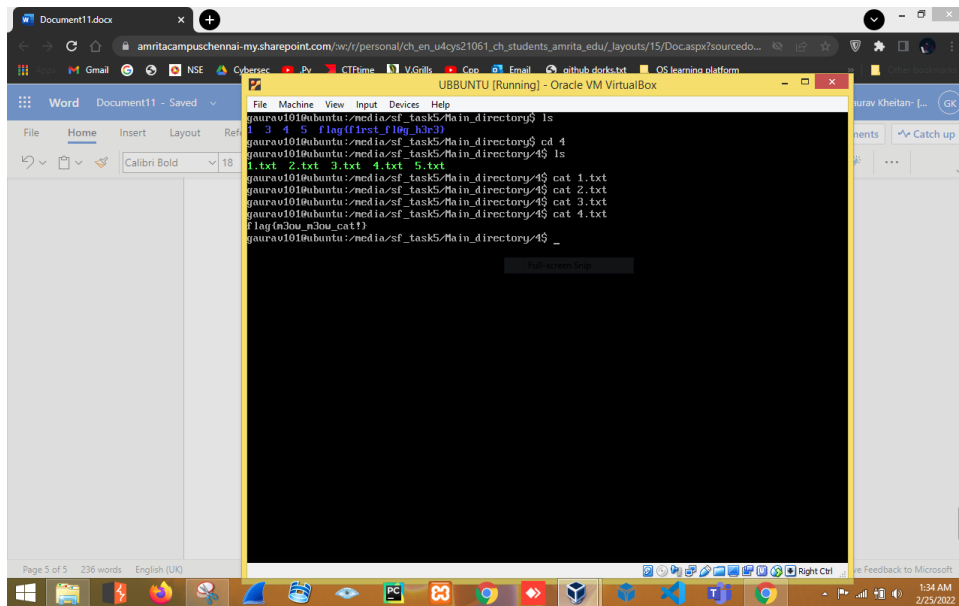
2)flag{Y0u_f0und_m3!}



```
gaurav101@ubuntu:/media/sf_task5/Main_directory/1$ ls
zipped_flag zipped_flag.zip
gaurav101@ubuntu:/media/sf_task5/Main_directory/1$ unzip zipped_flag.zip
Archive:  zipped_flag.zip
(zipped_flag.zip) zipped_flag/zipped_flag.txt password:
extracting: zipped_flag/zipped_flag.txt
gaurav101@ubuntu:/media/sf_task5/Main_directory/1$ ls
zipped_flag zipped_flag.zip
gaurav101@ubuntu:/media/sf_task5/Main_directory/1$ cd zipped_flag
gaurav101@ubuntu:/media/sf_task5/Main_directory/1/zipped_flag$ ls
zipped_flag.txt
gaurav101@ubuntu:/media/sf_task5/Main_directory/1/zipped_flag$ cat zipped_flag.txt
flag{e@5y_p@ssw0rd!}
gaurav101@ubuntu:/media/sf_task5/Main_directory/1/zipped_flag$ _
```

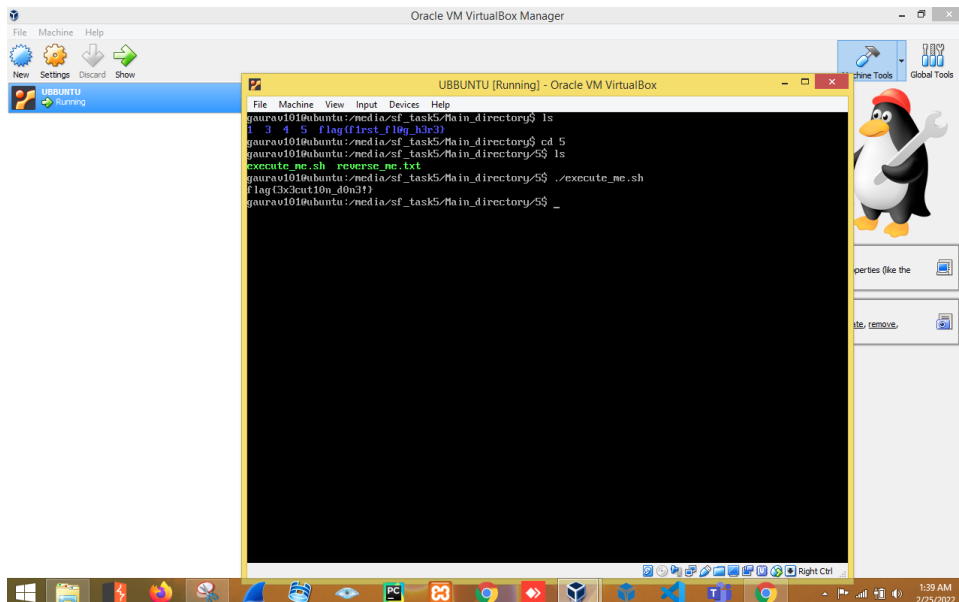
Inside the directory named “1” there was a zip file with password protected. Unzipping the file gave the text file containing the flag.

3)flag{e@5y_p@ssw0rd!}



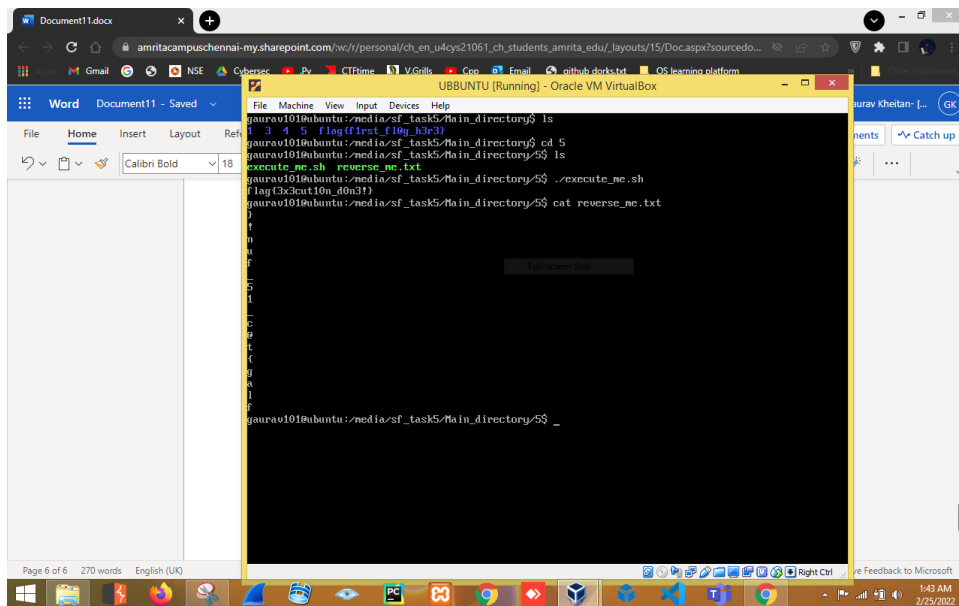
Getting inside the Directory named “4”. there was a text file named “4.txt” containing the flag.

4)flag{m3ow_m30w_cat!}



Inside the Directory named “5” there was a bash file. While executing it gave the flag.

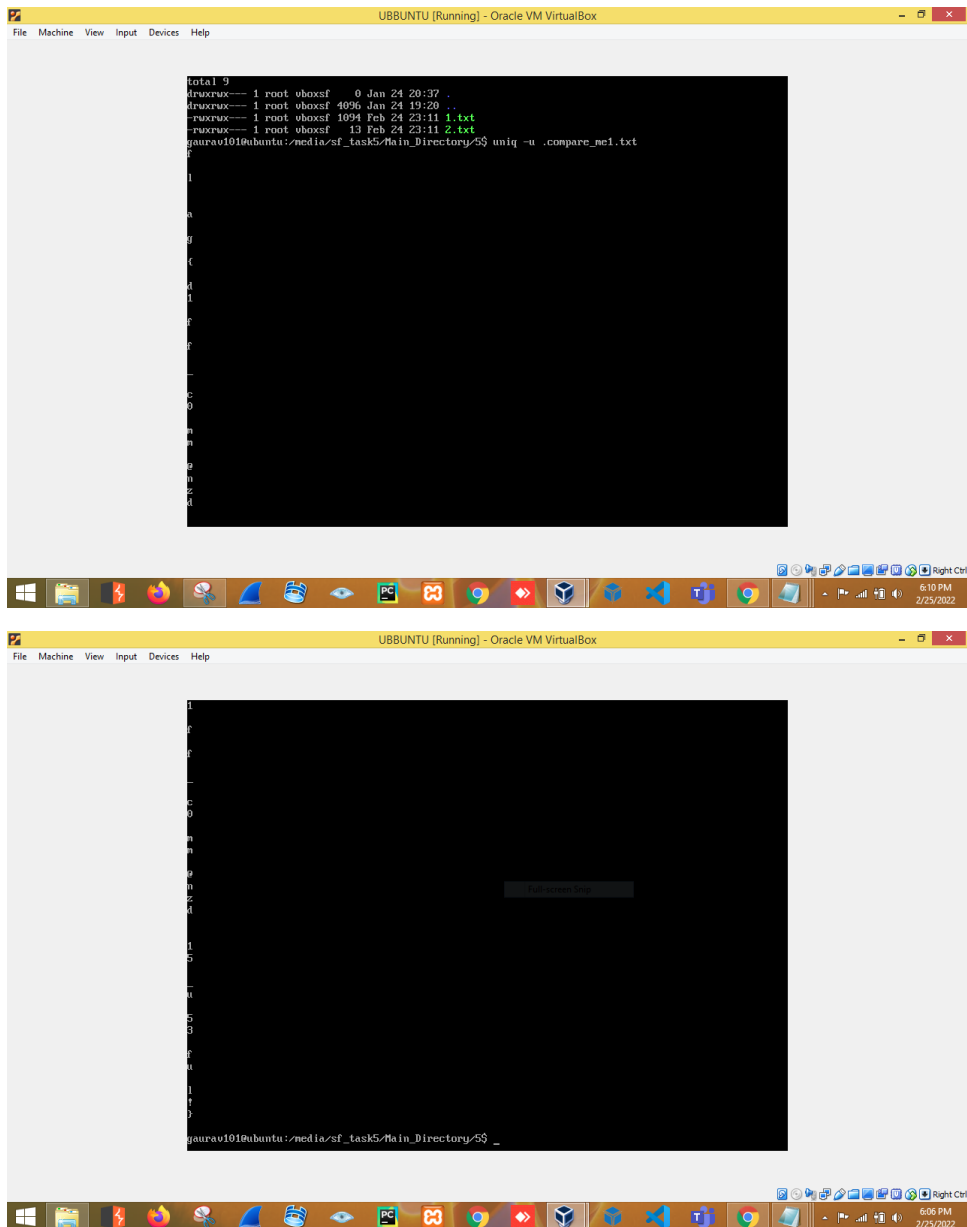
5)flag{3x3cut10n_don3!}



```
gaurav101@ubuntu:/media/sf_task3/main_directory$ ls
1 3 4 5 flag(first_flag_h3x3)
gaurav101@ubuntu:/media/sf_task5/main_directory$ cd 5
gaurav101@ubuntu:/media/sf_task5/main_directory/$ ls
execute_me.sh reverse_me.txt
gaurav101@ubuntu:/media/sf_task5/main_directory/$ ./execute_me.sh
flag{3x3cut10n_don3!}
gaurav101@ubuntu:/media/sf_task5/main_directory/$ cat reverse_me.txt
flag{3x3cut10n_don3!}
gaurav101@ubuntu:/media/sf_task5/main_directory/$ _
```

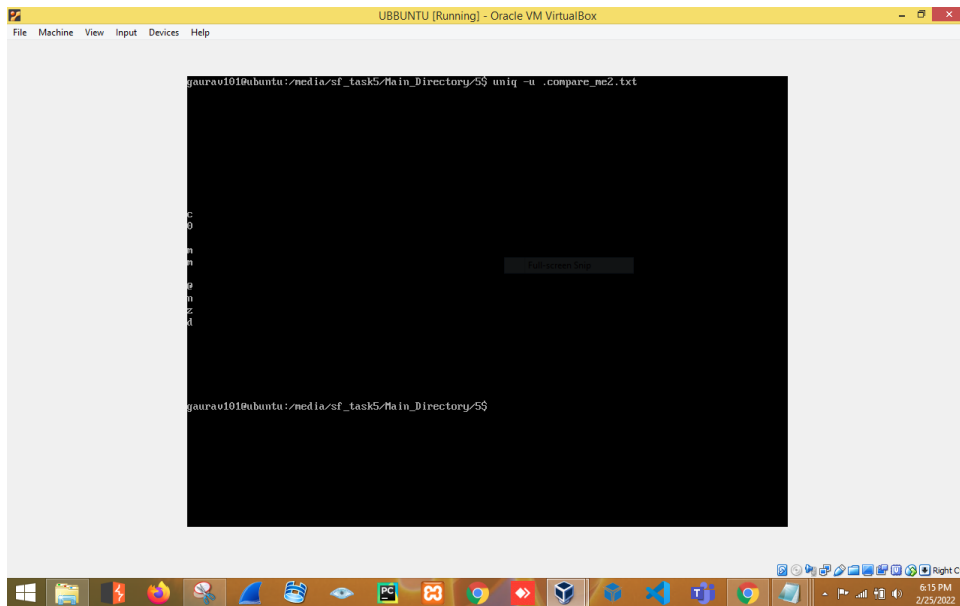
Printing the content of the text file named “reverse_me.txt” gave the flag which is to be reversed.

6)flag{t@c_15_fun!}



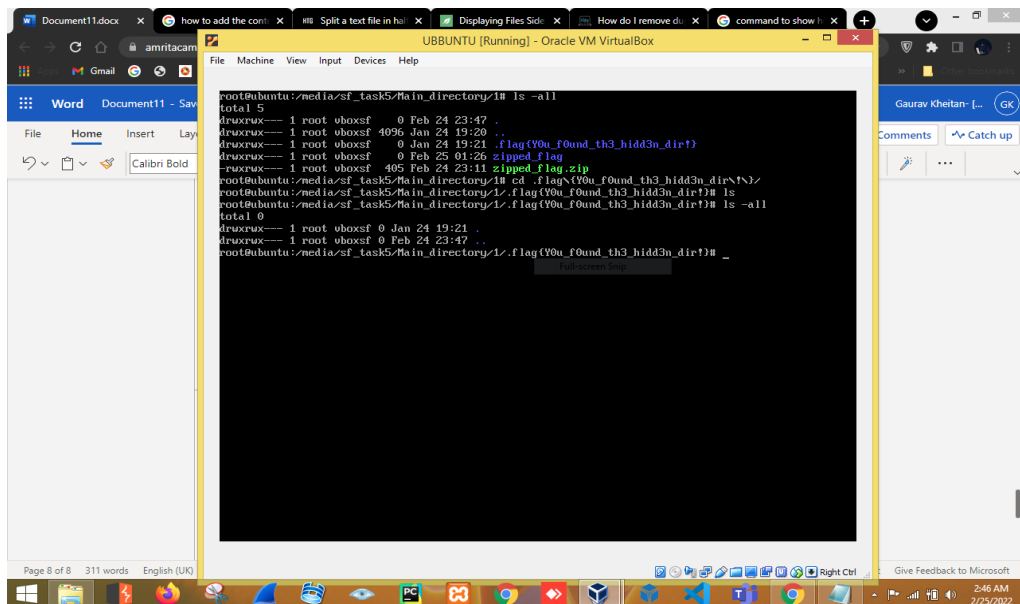
Inside the directory named “5” there are some hidden files named “comapare_me1.txt” with the flag hiding inside it.

7)flag{d1ff_comm@ndis_u53ful!}



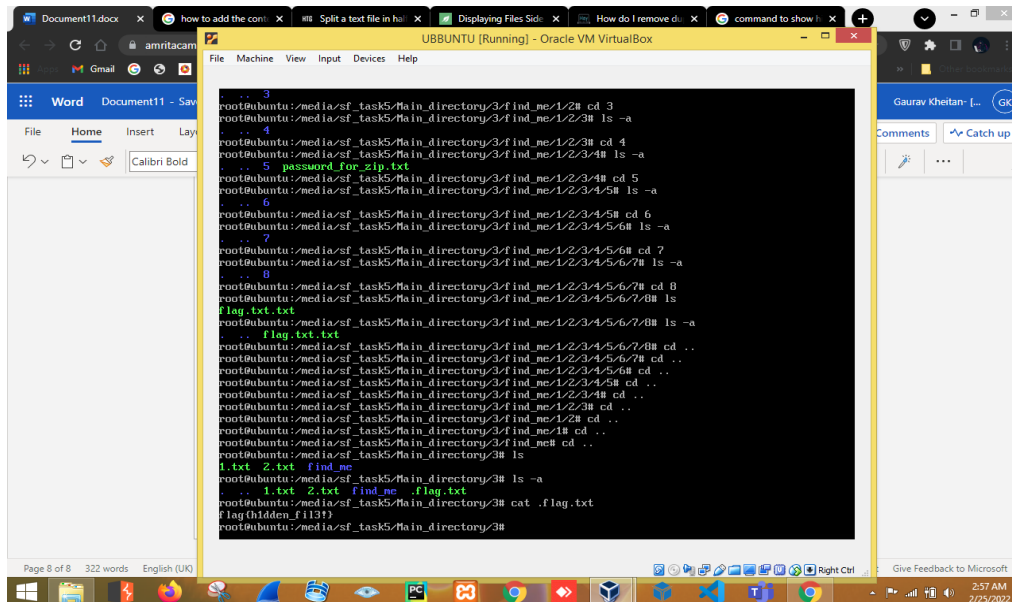
Inside the directory named “5” there was a hidden file named “.compare_me2.txt” with the below flag:

8) flag{comm@nd}



Hidden directory was found I the directory named “1”

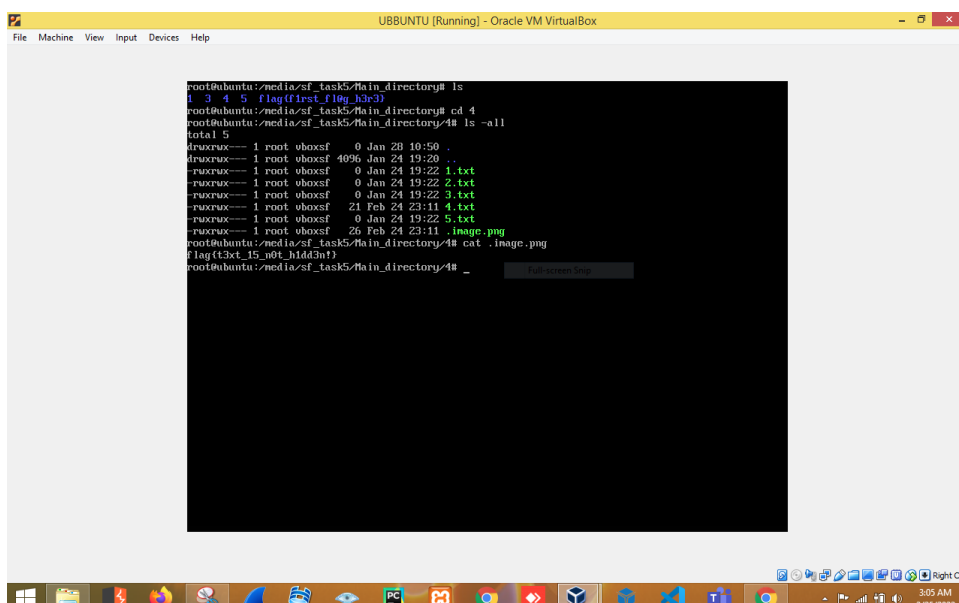
9) flag{Y0u_f0und_th3_hidd3n_dir!}



```
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2# cd 3
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3# ls -a
. . . 4
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3# cd 4
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4# ls -a
. . . 5 password_for_zip.txt
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4# cd 5
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5# ls -a
. . . 6
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5# cd 6
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5/6# ls -a
. . . 7
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5/6# cd 7
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5/6/7# ls -a
. . . 8
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5/6/7# cd 8
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5/6/7/8# ls
flag.txt.txt
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5/6/7/8# ls -a
. . . flag.txt.txt
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5/6/7/8# cd ..
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5/6/7# cd ..
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5/6# cd ..
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4/5# cd ..
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3/4# cd ..
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2/3# cd ..
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1/2# cd ..
root@ubuntu:/media/sf_task5/Main_directory/3/ind_ne1# cd ..
root@ubuntu:/media/sf_task5/Main_directory/3# ls
1.txt 2.txt find_ne
root@ubuntu:/media/sf_task5/Main_directory/3# ls -a
. . . 1.txt 2.txt find_ne flag.txt
root@ubuntu:/media/sf_task5/Main_directory/3# cat flag.txt
flag(hidden_f113!)
```

Hidden file was present in the directory “3” named “flag.txt” .

10) flag{h1dden_fil3!}



```
root@ubuntu:/media/sf_task5/Main_directory# ls
1 3 4 5 flag(first_flag_h3r3)
root@ubuntu:/media/sf_task5/Main_directory# cd 4
root@ubuntu:/media/sf_task5/Main_directory/4# ls -all
total 5
-rwxr-xr-x 1 root vboxsf 0 Jan 28 10:50 .
-rwxr-xr-x 1 root vboxsf 4096 Jan 24 19:20 ..
-rwxr-xr-x 1 root vboxsf 0 Jan 24 19:22 1.txt
-rwxr-xr-x 1 root vboxsf 0 Jan 24 19:22 2.txt
-rwxr-xr-x 1 root vboxsf 0 Jan 24 19:22 3.txt
-rwxr-xr-x 1 root vboxsf 21 Feb 24 23:11 4.txt
-rwxr-xr-x 1 root vboxsf 0 Jan 24 19:22 5.txt
-rwxr-xr-x 1 root vboxsf 26 Feb 24 23:11 image.png
root@ubuntu:/media/sf_task5/Main_directory/4# cat image.png
flag(txt_15_p0t_h1d3n!)
```

Image file named “.image.png” was hidden inside the directory named “4”

11)flag{t3xt_15_n0t_h1dd3n!}

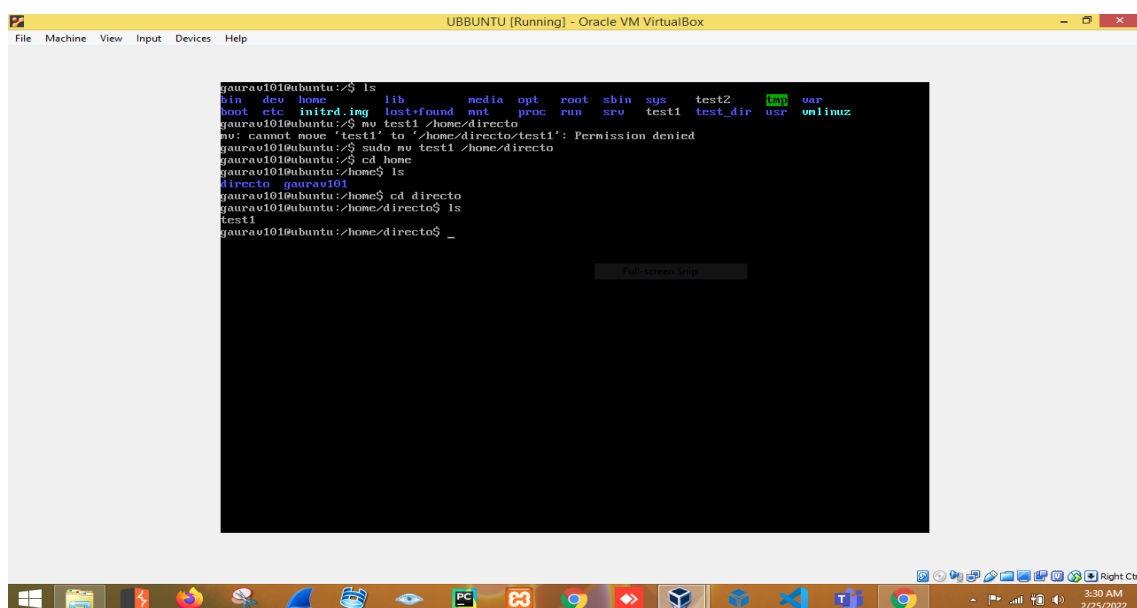
mv command:-

Mv command is used to move the file to the specific directory.

Syntax: -

Mv <file name> <directory name>

We are moving the file named “test1” to the directory named “directo” inside /home directory.



```
UBBUNTU [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

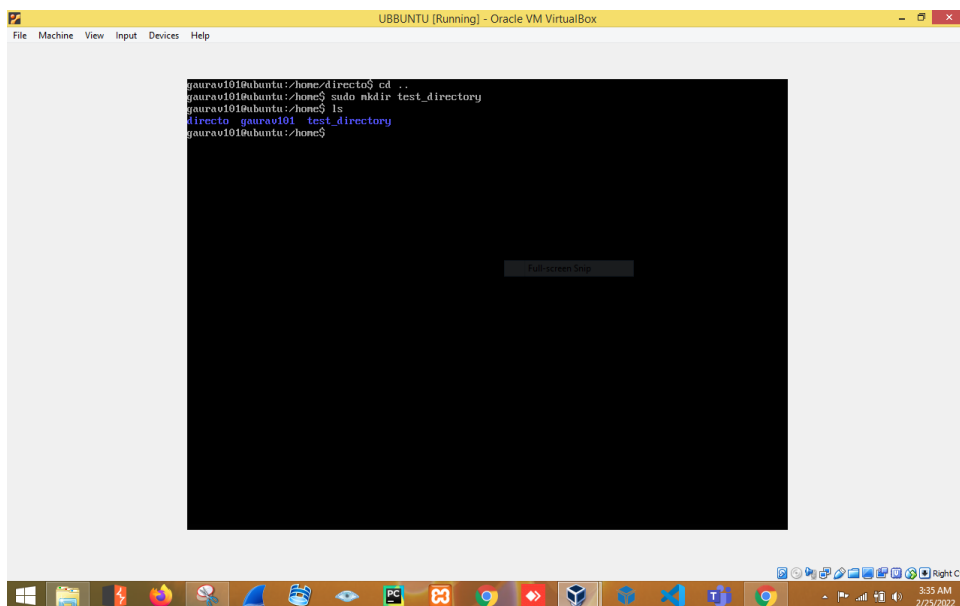
gauravi01@ubuntu:/$ ls
bin  dev  home  lib  media  opt  root /sbin  sys  test2  var
boot  etc  initrd.img  lost+found  mnt  proc  run  sru  test1  test_dir  usr  vmlinuz
gauravi01@ubuntu:/$ mv test1 /home/directo
mv: cannot move 'test1' to '/home/directo/test1': Permission denied
gauravi01@ubuntu:/$ sudo mv test1 /home/directo
gauravi01@ubuntu:/$ cd /home
gauravi01@ubuntu:/$ ls
directo  gauravi01
gauravi01@ubuntu:/$ cd directo
gauravi01@ubuntu:~/home/directo$ ls
test1
gauravi01@ubuntu:~/home/directo$ _
```

mkdir command: -

The mkdir command in Linux/Unix allows users to create or make new directories. mkdir stands for “make directory.”

Syntax:-

mkdir <directory name>

A screenshot of a terminal window titled "UBUNTU [Running] - Oracle VM VirtualBox". The terminal shows a user named "gauravi010" at the prompt "gauravi010@ubuntu:~/home/directo\$". The user enters "cd ..", then "gauravi010@ubuntu:~/home\$ sudo mkdir test_directory". The prompt changes to "gauravi010@ubuntu:~/home\$". The user enters "ls", and the output shows "directo gauravi01 test_directory". The prompt returns to "gauravi010@ubuntu:~/home\$". The terminal window has a menu bar with "File", "Machine", "View", "Input", "Devices", and "Help". The bottom of the window shows a taskbar with various application icons and a system tray with the time "3:35 AM" and date "2/25/2022".

```
gauravi010@ubuntu:~/home/directo$ cd ..
gauravi010@ubuntu:~/home$ sudo mkdir test_directory
gauravi010@ubuntu:~/home$ ls
directo gauravi01 test_directory
gauravi010@ubuntu:~/home$
```

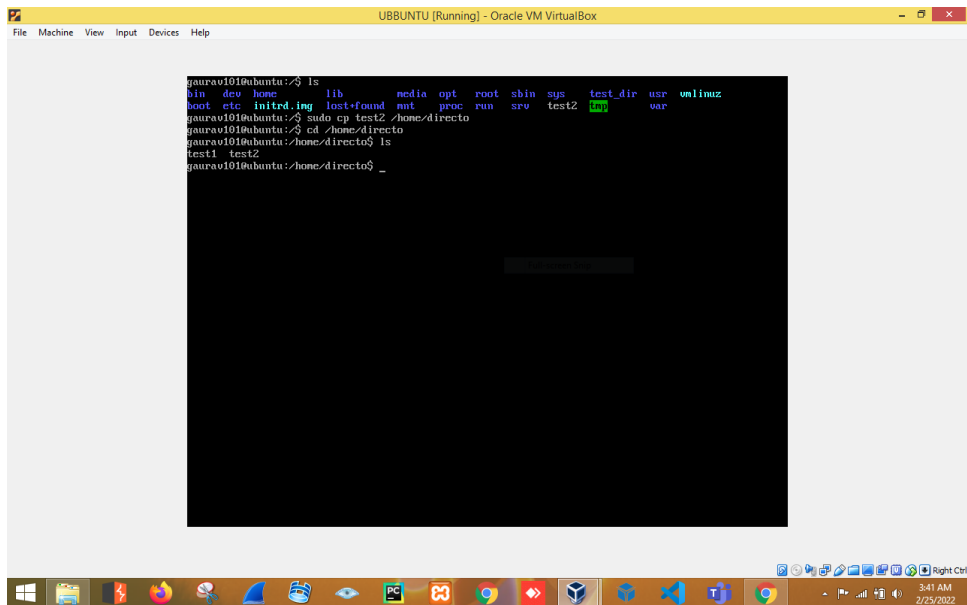
cp command: -

cp command is used for copying files and directories to another location.

Now we will copy the file named “test2” into the /home/directo directory.

Syntax: -

Cp <file name> <location path>



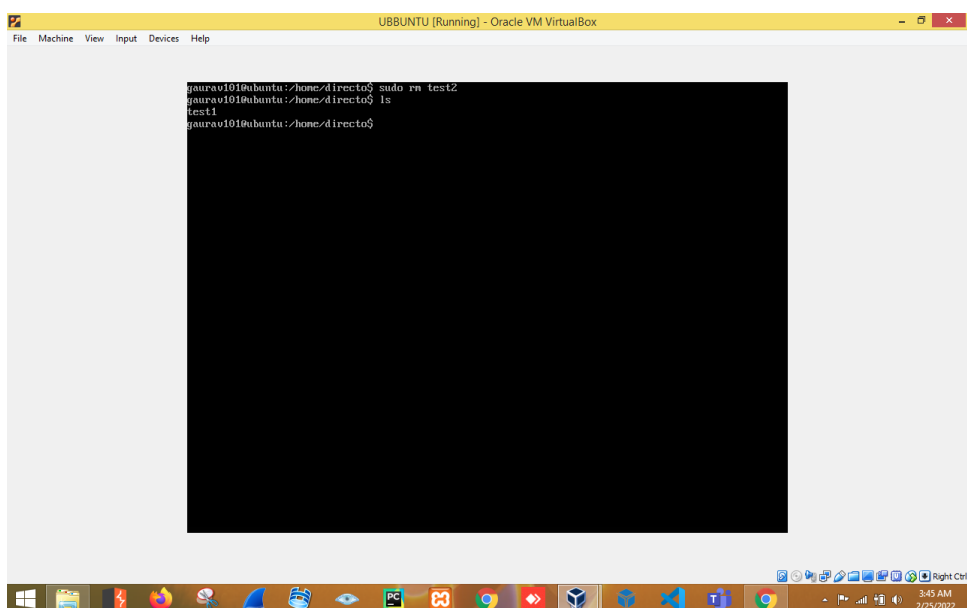
```
gauravi01@ubuntu:/$ ls
bin  dev  home  lib  media  opt  root  sbin  sys  test_dir  usr  uulinux
boot  etc  initrd.img  lost+found  net  proc  run  srv  test2  var
gauravi01@ubuntu:/$ sudo cp test2 /home/directo
gauravi01@ubuntu:/$ cd /home/directo
gauravi01@ubuntu:~/home/directo$ ls
test1  test2
gauravi01@ubuntu:~/home/directo$ _
```

rm command:-

rm removes each file specified on the command line

Syntax: -

Rm <file name>



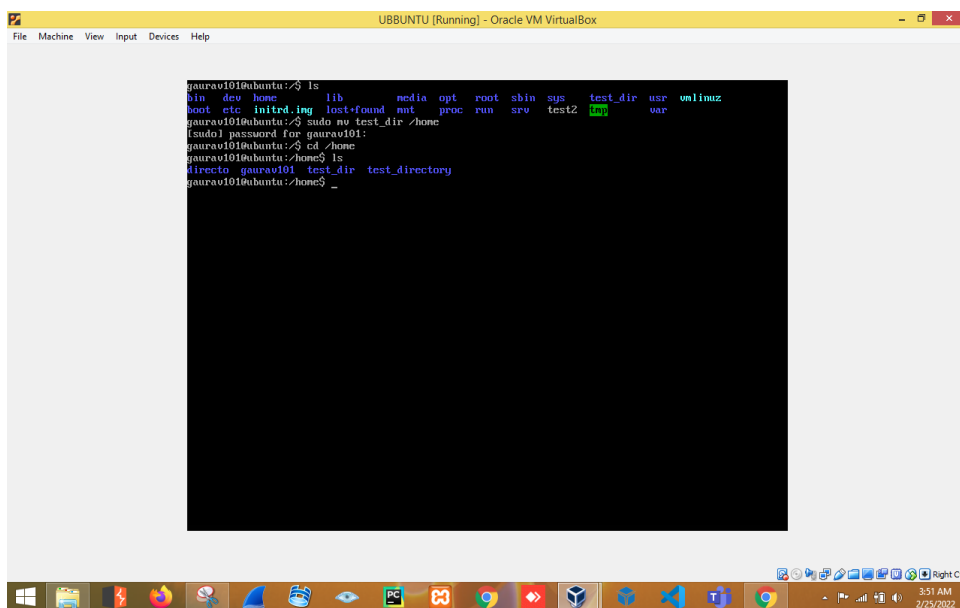
```
gauravi01@ubuntu:~/home/directo$ sudo rm test2
gauravi01@ubuntu:~/home/directo$ ls
test1
gauravi01@ubuntu:~/home/directo$
```

Moving the directory to the other location using mv command

Moving directory named “test_dir” to the location /home directory

Syntax: -

Mv <directory name> <location path>



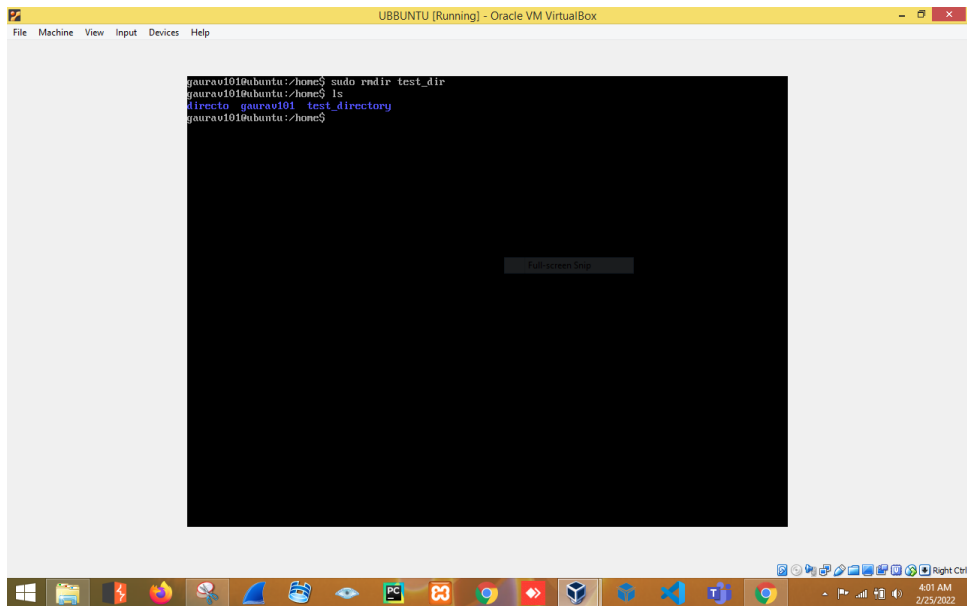
```
gauravi01@ubuntu:~$ ls
bin  dev  home  lib          media  opt  root  shin  sys  test_dir  usr  onlinuz
boot  etc  initrd.img  lost+found  mnt    proc  run   srv   test2  var
gauravi01@ubuntu:~$ sudo mv test_dir /home
[sudo] password for gauravi01:
gauravi01@ubuntu:~$ cd /home
gauravi01@ubuntu:~$ ls
directio  gauravi01  test_dir  test_directory
gauravi01@ubuntu:~$ _
```

rmdir command: -

rmdir is a command-line utility for deleting empty directories

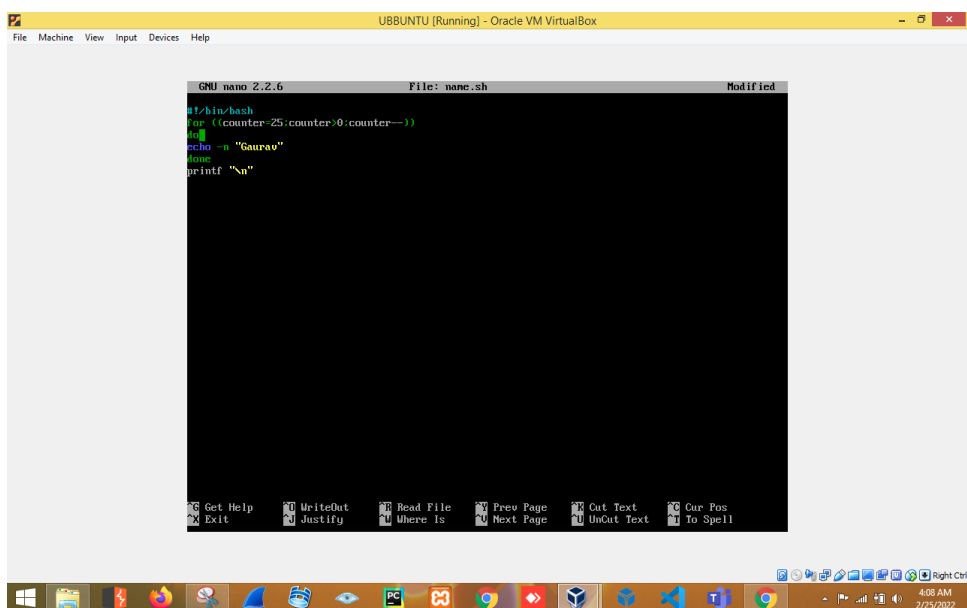
Syntax:

rmdir <directory name>

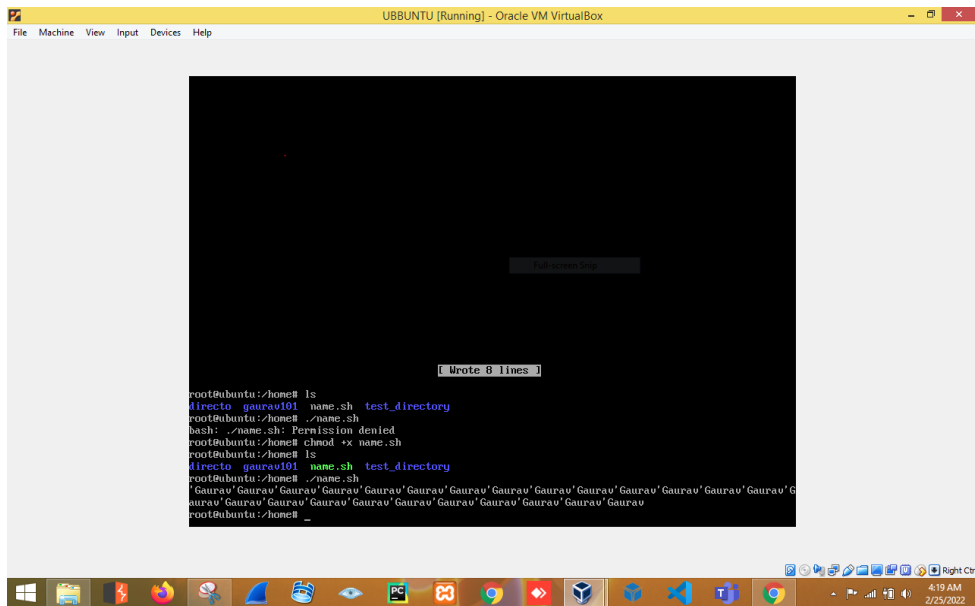


PART –2

- 1) Write a bash script to echo your name 25 times

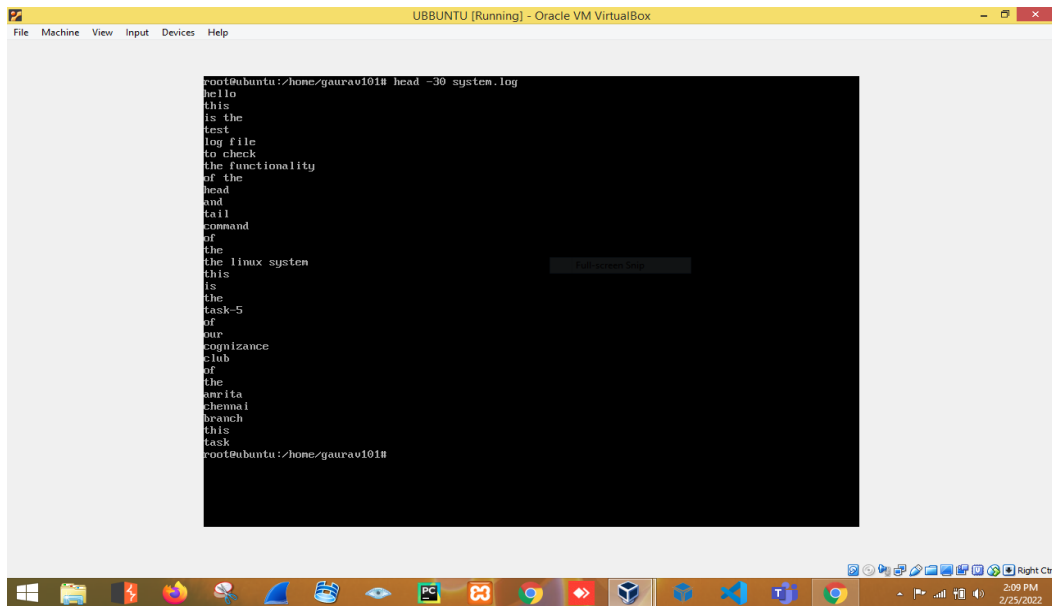


Output: -



2) What command should I use to display the first 30 entries of syslog file?

Syntax:

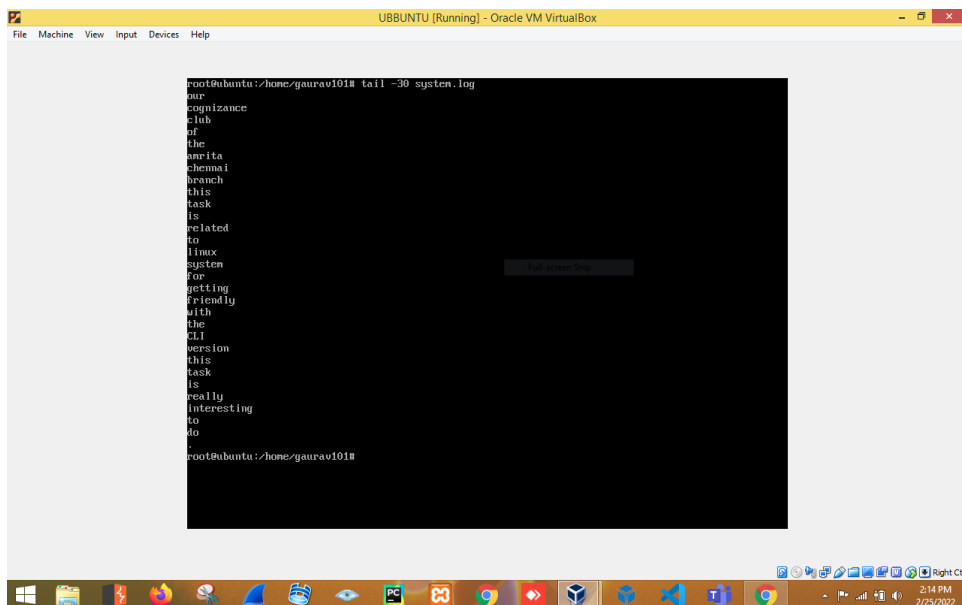


3) What command should I use to display the last 30 entries of syslog file?

Tail command is used to display the last few lines of the file

Syntax:

Tail -30 <file name>



4) What command should I use to arrange the entries of a file
Alphabetically

Reverse order

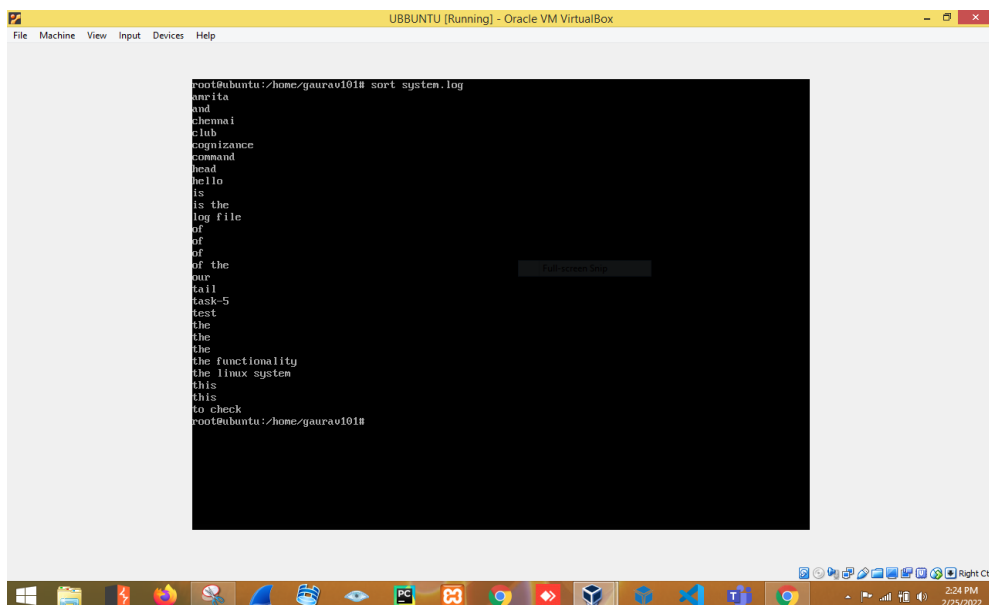
Numerical order

To arrange the entries of the file we use “sort” command with different flags to perform sorting of different type

To arrange the content in alphabetical order: -

Syntax: -

Sort <file name>

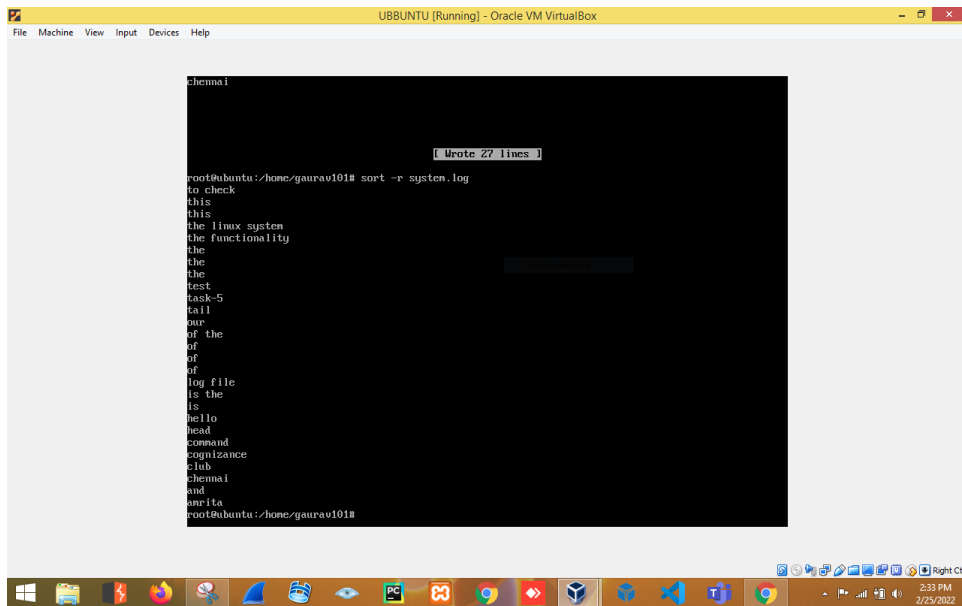
A screenshot of a terminal window titled 'UBUNTU [Running] - Oracle VM VirtualBox'. The terminal shows the command 'root@ubuntu:/home/gaurav101# sort system.log' and its output, which lists the contents of 'system.log' in alphabetical order. The output includes: 'anrita', 'and', 'chennai', 'club', 'cognizance', 'command', 'head', 'hello', 'is', 'is the', 'log file', 'of', 'of', 'of the', 'our', 'tail', 'task-5', 'test', 'the', 'the', 'the', 'the functionality', 'the linux system', 'this', 'this', 'to check'. The prompt 'root@ubuntu:/home/gaurav101#' is visible at the bottom of the terminal. The window has a menu bar with 'File', 'Machine', 'View', 'Input', 'Devices', and 'Help'. The bottom of the window shows a taskbar with various application icons and a system tray with the date '2/25/2022' and time '2:24 PM'.

To arrange the content in reverse order:

-r flag is used along with sort command to arrange the content in reverse order

Syntax:

Sort -r <file name>



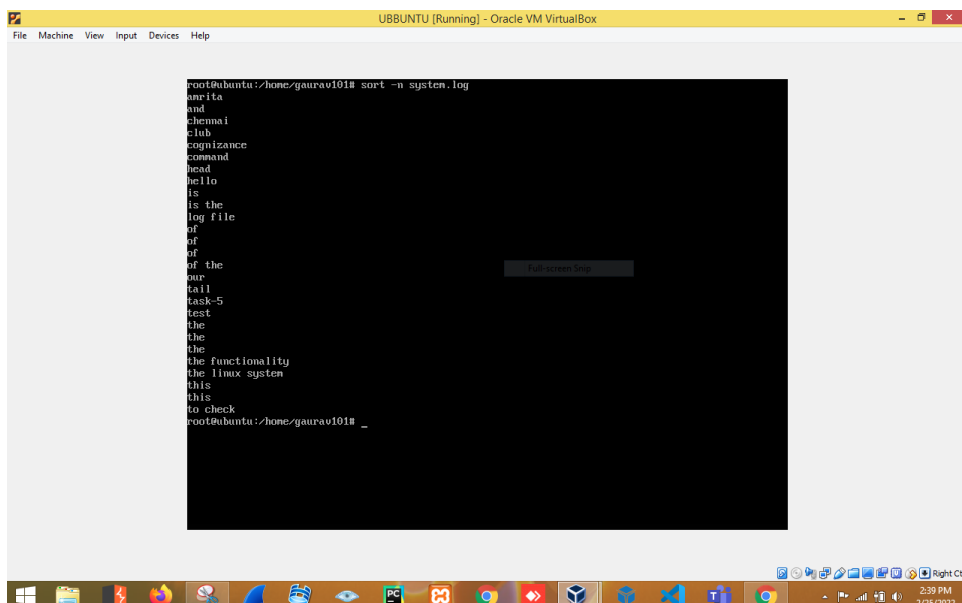
```
chennai  
[ Wrote 27 lines ]  
root@ubuntu:/home/gaurav101# sort -r system.log  
to check  
this  
this  
the linux system  
the functionality  
the  
the  
test  
task-5  
tail  
our  
of the  
of  
of  
of  
log file  
is the  
is  
hello  
head  
command  
cognizance  
club  
chennai  
and  
anrita  
root@ubuntu:/home/gaurav101#
```

TO arrange the entries in the numerical order: -

-n flag is used along with sort command to arrange the entries in numerical order.it compares according to the string numerical value (ASCII value).

Syntax:

Sort -n <file name>



```
root@ubuntu:/home/gaurav101# sort -n system.log  
anrita  
and  
chennai  
club  
cognizance  
command  
head  
hello  
is  
is the  
log file  
of  
of  
of  
of the  
our  
tail  
task-5  
test  
the  
the  
the  
the functionality  
the linux system  
this  
this  
to check  
root@ubuntu:/home/gaurav101#
```

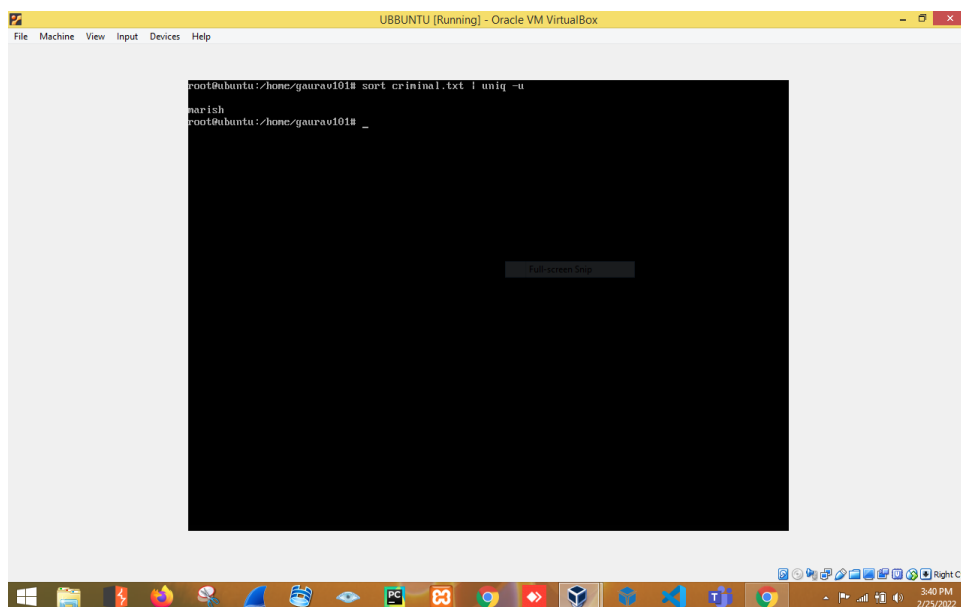
5) Copee is a hard-working cop. He found a case and almost at the verge of cracking it. It could be his best breakthrough. He has the list of criminals but lots of duplicates are there. He needs to find the only one that is different. He sought your help. How will you sort this issue?

“Uniq” command is used to remove the duplicate from the text file. For uniq to work, you must first sort the output.

Syntax:

Sort <file name> | uniq -u

-u flag is used to find the unique entry in the file



Here we are sorting the file named “criminal.txt” containing the multiple duplicates entry and the using sort command with the flag “-u” to find the unique entry.

6) What are the four parts of file's permission?

“ls -l” command is used to display the permission of the files

Four parts of the file permission are: -

Read: -Read permission provides the “Read-only” permission that means no other than creator can makes changes in the file. Read permission on a directory gives you the ability to lists its content.

Write: Write permission provides the” Read and write only” permission that means other users can also modify the content of the file. The write permission on a directory gives you the authority to add, remove and rename files stored in the directory.

Execute: -In Unix/Linux, you cannot run a program unless the execute permission is set. If the execute permission is not set, you might still be able to see/modify the program code (provided read & write permissions are set), but not run it.

Delete: -In order to delete the file, we need read, write and execute permission on a directory to remove the file from the directory. Note a user needs no permissions on a file nor be the file's owner to delete it!

Thank you for reading patiently.

