Ex 1 ADVANCED LINUX COMMANDS
Date: 18.08.20

Aim:

To study and implement the linux commands

Description:

Sl. No.	Command Name	Description	options
1.	**ls**	List files and/or directories.	-a, --all do not ignore entries starting with. -A, --almost-all do not list implied. and. --author with -l, print the author of each file -b, --escape print C-style escapes for nongraphic characters --block-size=SIZE
2.	**Who am i**	This command reveals the user who is currently logged in.	-a, --all =same as -b -d --login -p -r -t -T -u -b, --boot time of last system boot -d, --dead print dead processes -H, --heading print line of column headings -l, --login

			print system login processes --lookup attempt to canonicalize hostnames via
3.	**pwd**	prints the absolute path to the current working directory	-L, --logical use PWD from the environment, even if it contains symlinks -P, --physical avoid all symlinks
4.	**cal**	Displays the calendar of the current month	-1, --one Display single month output. (This is the default.) -3, --three Display prev/current/next month output. -s, --Sunday Display Sunday as the first day of the week. -m, --Monday Display Monday as the first day of the week. -j, --Julian Display Julian dates (days one based, numbered from January 1). -y, --year
5.	**echo**	This command will echo whatever you provide it.	-n do not output the trailing

			newline -e enable interpretation of backslash escapes -E disable the interpretation of backslash escapes (default)
6.	**date**	Displays current time and date.	-d, --date=STRING display time described by STRING, not 'now' -f, --file=DATEFILE like --date once for each line of DATAFILE
7.	**tty**	Displays the current terminal.	
8.	**id**	This command prints user and groups (UID and GID) of the current user.	-a ignore, for compatibility with other versions -Z, --context print only the security context of the current user -g, --troup print only the effective group ID -G, --groups print all group IDs -n, --name print a name instead of a number, for -ugG
9.	**clear**	This command clears the screen.	
10.	**man**	To show manual page	
11.	**cd**	Change the current working	

		directory to the directory provided as an argument.	
12.	**mkdir**	To create a directory, the 'mkdir' command is used.	
13.	**touch**	For creating an empty file, use the touch command.	
14.	**cp**	Copy files and directories	
15.	**mv**	Move files or directories. The 'mv' command works like 'cp' command, except that the original file is removed. But, the mv command can be used to rename the files (or directories).	
16.	**rmdir**	the command removes any empty directories, but cannot delete a directory if a file is present in it.	
17.	**file**	The file command determines the file type of a given file.	
18.	**cat**	The 'cat' command is actually a concatenator but can be used to view the contents of a file.	
19.	**head**	Displays the first few lines of a file. By default, the 'head' command displays the first 10 lines of a file.	
20.	**tail**	the 'tail' command shows the last 10 lines by default	-c, --bytes=[-]K print the first K bytes of each file -n, --lines=[-]K print the first K lines instead of the first 10 -q, --quiet, --silent never print headers giving file names
21.	**wc**	This command counts lines, words, and letters of the input given to it.	

22.	**grep**	The 'grep' command searches for a pattern in a file (or standard input).	
23.	**vi**	Visual editor	
24.	**alias**	The 'alias' is another name for a command.	
25.	**history**	shows the commands you have entered on your terminal so far.	
26.	**passwd**	To change your password	
27.	**help**	With almost every command, '--help' option shows usage summary for that command.	
28.	**chmod**	The chmod command lets you change access permissions for a file.	
29.	**stat**	To check the status of a file. This provides more detailed information about a file than 'ls -l' output.	-L, --dereference follow links -f, --file-system display file system status instead of file status -c --format=FORMAT use the specified FORMAT instead of the default; output a newline after each use of FORMAT --printf=FORMAT
30.	**ln**	The ln command is used in Linux to create links.	

Exercise:

1. List the contents of user's home directory including the hidden files

```
[urk17cs054@code ~]$ ls -a
.           a11.c   a26.c  a42.c          arm.c
..          a12.c   a27.c  a43.c          array.c
\           a12.c6  a28.c  a44.c          bank1.cpp
10-1.cpp    a13.c   a29.c  a45.c          bank1.cppclear
10-2.cpp    a14.c   a2.c   a46.c          bank.cpp
10-3.cpp    a16.c   a30.c  a47.c          .bash_history
1.c         a17.c   a31.c  a4.c           .bash_logout
1.cpp       a18.c   a32.c  a5.c           .bash_profile
2.c         a19.c   a33.c  a6.c           .bashrc
2darray.c   a1.c    a34.c  a7.c           bitwise.c
3.c         a20.c   a35.c  a8.c           bitwise.c.save
4.c         a21.c   a36.c  a9.c           bmi.c
5.c         a22.c   a39.c  adding.c       class1.cpp
6.c         a23.c   a3.c   adding part2   class.cpp
7.c         a24.c   a40.c  a.out          conditional.c
8.c         a25.c   a41.c  area.c         .config
```

2. List the content of /var directory?

```
[urk17cs054@code var]$ cd /var
[urk17cs054@code var]$ ls
adm       centrifyda  db     gopher    local  mail  preserve  tmp
cache     centrifydc  empty  kerberos  lock   nis   run       yp
centrify  crash       games  lib       log    opt   spool
```

3. Create two directories named dir1 & dir2

```
[urk17cs054@code var]$ cd
[urk17cs054@code ~]$ mkdir dir1 dir2
[urk17cs054@code ~]$ ls d*
days.cpp  distance.c

dir1:

dir2:
```

4. Create a hidden directory with your name?

```
[urk17cs054@code dir2]$ mkdir .reeves
[urk17cs054@code dir2]$
```

5. Display the content of a hidden directory.

```
[urk17cs054@code dir2]$ cd .reeves
[urk17cs054@code .reeves]$ touch noel
[urk17cs054@code .reeves]$ ls
noel
[urk17cs054@code .reeves]$
```

6. Display the calendar of 2020.

```
[urk17cs054@code ~]$ cal 2020
                                2020

      January               February                March
Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa
          1  2  3  4                      1      1  2  3  4  5  6  7
 5  6  7  8  9 10 11    2  3  4  5  6  7  8      8  9 10 11 12 13 14
12 13 14 15 16 17 18    9 10 11 12 13 14 15     15 16 17 18 19 20 21
19 20 21 22 23 24 25   16 17 18 19 20 21 22     22 23 24 25 26 27 28
26 27 28 29 30 31      23 24 25 26 27 28 29     29 30 31

       April                  May                   June
Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa
          1  2  3  4                   1  2         1  2  3  4  5  6
 5  6  7  8  9 10 11    3  4  5  6  7  8  9      7  8  9 10 11 12 13
12 13 14 15 16 17 18   10 11 12 13 14 15 16     14 15 16 17 18 19 20
19 20 21 22 23 24 25   17 18 19 20 21 22 23     21 22 23 24 25 26 27
26 27 28 29 30         24 25 26 27 28 29 30     28 29 30
                       31

       July                  August                September
Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa
          1  2  3  4                      1            1  2  3  4  5
 5  6  7  8  9 10 11    2  3  4  5  6  7  8      6  7  8  9 10 11 12
12 13 14 15 16 17 18    9 10 11 12 13 14 15     13 14 15 16 17 18 19
19 20 21 22 23 24 25   16 17 18 19 20 21 22     20 21 22 23 24 25 26
26 27 28 29 30 31      23 24 25 26 27 28 29     27 28 29 30
                       30 31

      October               November              December
Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa
             1  2  3    1  2  3  4  5  6  7            1  2  3  4  5
 4  5  6  7  8  9 10    8  9 10 11 12 13 14      6  7  8  9 10 11 12
11 12 13 14 15 16 17   15 16 17 18 19 20 21     13 14 15 16 17 18 19
18 19 20 21 22 23 24   22 23 24 25 26 27 28     20 21 22 23 24 25 26
25 26 27 28 29 30 31   29 30                    27 28 29 30 31
```

7. Copy the file /etc/passwd file to current directory with sample.txt as the filename

```
[urk17cs054@code ~]$ cat /etc/passwd > samp.txt
[urk17cs054@code ~]$ cat samp.txt
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:99:99:Nobody:/:/sbin/nologin
systemd-network:x:192:192:systemd Network Management:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
```

8. Create a file test1.txt using Vim editor with the following contents to it

```
Name     RegNo    ResearchInterest
Melvin   07af501  GridComputing
Mithin   07af502  ClusterComputing
James    07af503  ImageProcessing
Jane     07af504  Networking
Caroline          07af505 ClusterComputing
Binu     07af506  GridComputing
Aaron    07af507  ImageProcessing
Selvin   07af508  Networking
Jerwin   07af509  WirelessNetworks
Arun     07af510  GridComputing
```

8a) Display the student names who are having Research Interest as Grid Computing

```
[urk17cs054@code ~]$ grep GridComputing test1.txt | cut -f 1
Melvin
Binu
Arun
[urk17cs054@code ~]$
```

8b) List all the student names & RegNo in the class

```
[urk17cs054@code ~]$ cut -f 1,2 test1.txt
Name    RegNo
Melvin  07af501
Mithin  07af502
James   07af503
Jane    07af504
Caroline        07af505
Binu    07af506
Aaron   07af507
Selvin  07af508
Jervin  07af509
Arun    07af510
[urk17cs054@code ~]$
```

8c) List the count of students who have interest as Image Processing and store the result in another file.

```
[urk17cs054@code ~]$ grep ImageProcessing test1.txt | wc -l > test2.txt
[urk17cs054@code ~]$ cat test2.txt
2
[urk17cs054@code ~]$
```

8d) Display the first two rows and last two and store into another file

```
[urk17cs054@code ~]$ head  -2 test1.txt >> test3.txt | tail -2 test1.txt >> test3.t
xt
[urk17cs054@code ~]$ cat test3.txt
Jervin  07af509 WirelessNetworks
Arun    07af510 GridComputing
Name    RegNo   ResearchInterest
Melvin  07af501 GridComputing
```

9. Display the contents of the file test1.txt without any blank lines

```
[urk17cs054@code ~]$ grep -v '^$' test1.txt
Name    RegNo   ResearchInterest
Melvin  07af501 GridComputing
Mithin  07af502 ClusterComputing
James   07af503 ImageProcessing
Jane    07af504 Networking
Caroline        07af505 ClusterComputing
Binu    07af506 GridComputing
Aaron   07af507 ImageProcessing
Selvin  07af508 Networking
Jervin  07af509 WirelessNetworks
Arun    07af510 GridComputing
[urk17cs054@code ~]$ vi test1.txt
[urk17cs054@code ~]$
```

10. Move the file sample.txt from dir1 directory to dir2 directory

```
[urk17cs054@code dir1]$ mv sample.txt dir2
[urk17cs054@code dir1]$ cd /../dir2
-bash: cd: /../dir2: No such file or directory
[urk17cs054@code dir1]$ cd
[urk17cs054@code ~]$ cd dir2
[urk17cs054@code dir2]$ ls
sample.txt
[urk17cs054@code dir2]$
```

11. Change directory into dir2 directory

```
[urk17cs054@code dir2]$ cd
[urk17cs054@code ~]$ cd dir2
[urk17cs054@code dir2]$
```

12. Check whether the file sample.txt is present their

```
[urkl7cs054@code dir2]$ cat sample.txt
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:99:99:Nobody:/:/sbin/nologin
systemd-network:x:192:192:systemd Network Management:/:/
dbus:x:81:81:System message bus:/:/sbin/nologin
polkitd:x:999:998:User for polkitd:/:/sbin/nologin
```

13. Rename the file sample.txt to new.txt and check whether sample.txt is there or not?

```
[urkl7cs054@code dir2]$ touch new.txt
[urkl7cs054@code dir2]$ mv sample.txt new.txt
[urkl7cs054@code dir2]$ ls
new.txt
[urkl7cs054@code dir2]$
```

14. Remove the directory dir1

```
[urkl7cs054@code ~]$ rm -r dir1
[urkl7cs054@code ~]$ cd dir2
[urkl7cs054@code dir2]$ cd
[urkl7cs054@code ~]$ cd dir1
-bash: cd: dir1: No such file or directory
[urkl7cs054@code ~]$
```

15. Display last 3 lines of the file test1.txt

```
[urkl7cs054@code ~]$ tail -3 testl.txt
Selvin   07af508 Networking
Jervin   07af509 WirelessNetworks
Arun     07af510 GridComputing
[urkl7cs054@code ~]$
```

16. Display all the commands you have executed so far and save the list into a file named todayshistory.txt

```
[urkl7cs054@code ~]$ history > todayshistory.txt
[urkl7cs054@code ~]$ cat todayshistory.txt
   44  vi overoperator5.cpp
   45  g++ overoperator5.cpp
   46  vi overoperator5.cpp
   47  g++ overoperator5.cpp
   48  vi overoperator5.cpp
   49  g++ overoperator5.cpp
   50  vi overoperator5.cpp
   51  g++ overoperator5.cpp
   52  vi overoperator5.cpp
   53  g++ overoperator5.cpp
```

17. How many files are present under your home directory?

```
[urkl7cs054@code ~]$ ls -a | wc -l
178
[urkl7cs054@code ~]$
```

18. Perform sorting of three files and store the sorted file in the fourth file

```
[urkl7cs054@code ~]$ cat > f1.txt
Henry
Noel
Abi
[urkl7cs054@code ~]$ cat > f2.txt
Jacob
Sam
[urkl7cs054@code ~]$ cat > f3.txt
Lennon
[urkl7cs054@code ~]$ sort f1.txt f2.txt f3.txt > f4.txt
[urkl7cs054@code ~]$ cat f4.txt
Abi
Henry
Jacob
Lennon
Noel
Sam
[urkl7cs054@code ~]$
```

19. Change the permission of your newly created file such that the group users and others don't access any type of access.

```
[urkl7cs054@code ~]$ chmod 700 f4.txt
[urkl7cs054@code ~]$ ls -l f4.txt
-rwx------ 1 urkl7cs054 urkl7cs054 32 Dec 15 21:51 f4.txt
[urkl7cs054@code ~]$
```

20. Display the network status on the shell.

```
[urk17cs054@code ~]$ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 code.karunya.edu:hbci   code.karunya.edu:48268  ESTABLISHED
tcp        0      0 code.karunya.edu:nfs    192.168.0.32:ftps-data  ESTABLISHED
tcp        0      0 code.karunya.edu:48584  code.karunya.edu:hbci   ESTABLISHED
tcp        0      0 code.karunya.edu:48648  code.karunya.edu:hbci   TIME_WAIT
tcp        0      0 code.karunya.edu:nfs    192.168.0.34:790        ESTABLISHED
tcp        0      0 code.karunya.edu:https  162.158.31.142:56210    ESTABLISHED
tcp        0      0 code.karunya.edu:hbci   code.karunya.edu:48508  ESTABLISHED
tcp        0      0 code.karunya.edu:48422  code.karunya.edu:hbci   ESTABLISHED
tcp        0      0 code.karunya.edu:47192  code.karunya.edu:hbci   ESTABLISHED
tcp        0      0 code.karunya.edu:hbci   code.karunya.edu:48452  ESTABLISHED
tcp        0      0 code.karunya.edu:https  162.158.154.218:43824   ESTABLISHED
tcp        0      0 code.karunya.edu:https  162.158.31.140:11722    ESTABLISHED
tcp        0      0 code.karunya.edu:36266  192.168.2.27:ldap       ESTABLISHED
tcp        0      0 code.karunya.edu:48508  code.karunya.edu:hbci   ESTABLISHED
tcp        0      0 code.karunya.edu:48632  code.karunya.edu:hbci   ESTABLISHED
tcp        0      0 code.karunya.edu:48656  code.karunya.edu:hbci   TIME_WAIT
tcp        0      0 code.karunya.edu:https  172.68.146.135:37406    ESTABLISHED
tcp        0      0 code.karunya.edu:https  162.158.166.1:scotty-ft ESTABLISHED
tcp        0      0 code.karunya.edu:47700  code.karunya.edu:hbci   ESTABLISHED
tcp        0      0 code.karunya.edu:48642  code.karunya.edu:hbci   TIME_WAIT
```

21. Compare any two files and search for both common and exclusive features

```
[urk17cs054@code ~]$ diff f1.txt f2.txt
1c1,2
< Henry
---
> Jacob
> Sam
3d3
< Abi
[urk17cs054@code ~]$ comm f1.txt f2.txt
Henry
        Jacob
Noel
comm: file 1 is not in sorted order
Abi
        Sam
comm: file 2 is not in sorted order
        Noel
[urk17cs054@code ~]$
```

22. Display the user ID, process ID and parent process ID.

```
[urk17cs054@code ~]$ ps -f
UID        PID  PPID  C STIME TTY          TIME CMD
urk17cs+ 27167 27157  0 12:29 pts/0    00:00:00 -bash
urk17cs+ 31046 27167  0 12:52 pts/0    00:00:00 ps -f
[urk17cs054@code ~]$
```

23. Report disk usages of file system.

```
[urk17cs054@code ~]$ df
Filesystem                      1K-blocks     Used Available Use% Mounted on
devtmpfs                          3992636        0   3992636   0% /dev
tmpfs                             4004520        0   4004520   0% /dev/shm
tmpfs                             4004520   386308   3618212  10% /run
tmpfs                             4004520        0   4004520   0% /sys/fs/cgroup
/dev/mapper/centos_kitscode-root  68066844  3014208  65052636   5% /
/dev/sda1                         1942528   334256   1608272  18% /boot
/dev/mapper/centos_kitscode-home  24404336    32992  24371344   1% /home
/dev/mapper/centos_kitscode-data  97609148 26097068  71512080  27% /data
/dev/mapper/centos_kitscode-var   10004480  9310880    693600  94% /var
tmpfs                               800908        0    800908   0% /run/user/1010884305
tmpfs                               800908        0    800908   0% /run/user/1010882184
tmpfs                               800908        0    800908   0% /run/user/1010882167
tmpfs                               800908        0    800908   0% /run/user/1010883198
tmpfs                               800908        0    800908   0% /run/user/1010875257
tmpfs                               800908        0    800908   0% /run/user/1010875507
tmpfs                               800908        0    800908   0% /run/user/1010883044
[urk17cs054@code ~]$
```

24. Display the statistics of all ports connected to a network.

```
[urk17cs054@code ~]$ netstat -l
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 0.0.0.0:nfs             0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:46053           0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:sunrpc          0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:http            0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:mountd          0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:34067           0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:ssh             0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:hbci            0.0.0.0:*               LISTEN
tcp        0      0 localhost:smtp          0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:https           0.0.0.0:*               LISTEN
tcp6       0      0 [::]:nfs                [::]:*                  LISTEN
tcp6       0      0 [::]:sunrpc             [::]:*                  LISTEN
tcp6       0      0 [::]:http               [::]:*                  LISTEN
tcp6       0      0 [::]:mountd             [::]:*                  LISTEN
tcp6       0      0 [::]:ssh                [::]:*                  LISTEN
tcp6       0      0 [::]:57431              [::]:*                  LISTEN
tcp6       0      0 localhost:smtp          [::]:*                  LISTEN
tcp6       0      0 [::]:https              [::]:*                  LISTEN
tcp6       0      0 [::]:39228              [::]:*                  LISTEN
udp        0      0 0.0.0.0:39547           0.0.0.0:*
udp        0      0 0.0.0.0:mountd          0.0.0.0:*
udp        0      0 0.0.0.0:sunrpc          0.0.0.0:*
udp        0      0 0.0.0.0:49440           0.0.0.0:*
udp        0      0 localhost:323           0.0.0.0:*
```

25. Display the uptime.

```
[urk17cs054@code ~]$ uptime
 13:49:50 up 9 days,  2:09, 140 users,  load average: 0.00, 0.01, 0.05
[urk17cs054@code ~]$
```

26. Display the Julian day.

```
[urk17cs054@code ~]$ date
Fri Aug 21 13:05:45 IST 2020
[urk17cs054@code ~]$ date +%j
234
[urk17cs054@code ~]$
```

27. Check the IP information.

```
[urk17cs054@code ~]$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 10
00
    link/ether 00:50:56:93:66:93 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.29/24 brd 192.168.0.255 scope global noprefixroute ens32
       valid_lft forever preferred_lft forever
    inet6 fe80::1450:18ba:187f:1f02/64 scope link noprefixroute
       valid_lft forever preferred_lft forever
[urk17cs054@code ~]$
```

28. Display only the free space in the system.

```
[urk17cs054@code ~]$ df -h --output=source,avail
Filesystem                          Avail
devtmpfs                            3.9G
tmpfs                               3.9G
tmpfs                               3.5G
tmpfs                               3.9G
/dev/mapper/centos_kitscode-root     63G
/dev/sda1                           1.6G
/dev/mapper/centos_kitscode-home     24G
/dev/mapper/centos_kitscode-data     69G
/dev/mapper/centos_kitscode-var     678M
tmpfs                               783M
tmpfs                               783M
tmpfs                               783M
tmpfs                               783M
tmpfs                               783M
tmpfs                               783M
tmpfs                               783M
tmpfs                               783M
tmpfs                               783M
[urk17cs054@code ~]$
```

29. Display the configuration information of your network.

```
[urk17cs054@code ~]$ netstat -nr
Kernel IP routing table
Destination     Gateway         Genmask         Flags   MSS Window  irtt Iface
0.0.0.0         192.168.0.254   0.0.0.0         UG        0 0          0 ens32
192.168.0.0     0.0.0.0         255.255.255.0   U         0 0          0 ens32
[urk17cs054@code ~]$
```

Results:

The linux commands are studied and executed.

Video Link:

https://youtu.be/4BCHxsD_xVw