

Operating Systems

Commands in linux <https://localG.com/>

- ① cp → copy a file
- ② mv → move or rename files or directories.
- ③ rm → remove a file or directory.
- ④ mkdir → make a directory.
- ⑤ rmdir → remove a directory.
- ⑥ tar → create and use archives of files.
- ⑦ gzip → compress a file.
- ⑧ cd → change directory.
- ⑨ pwd → Display the name of present working directory.
- ⑩ ls → gives the list names of files in directory.
- ⑪ cat → It concatenate and display the files.
- ⑫ ls -a → To show the hidden files.
- ⑬ man ls → To know about all commands of ls.
- ⑭ q → To exit from command.
- ⑮ Ctrl+C → To kill process.
- ⑯ ls -l → To give all information about our user creating files like date, permission etc.
- ⑰ date → To know the current date and day.

- (18) `cal` → To see the calendar of ~~current~~ month.
- (19) `W` → To show the username who logged in.
- (20) `touch` → To create file.
- (21) `ps` → To show all the process which are working in background.
- (22) `whoami` → To know who work on our system. (if the system is multiuser).
- (23) `kill PID` → To kill the process.
- (24) `free` → gives information regarding ram.
- (25) `df` → gives information regarding drives.
- (26) `vi` → To open the file in vi editor. ^{if file not exist}
i.e. press `i` → To go into insert mode. ^{then it will also create.}
- (27) ~~ESC~~ How to save file?
- (1) `ESC` ^{or wq}
- (2) `:x` + enter key → File save and exit from vi editor.

1 folder - 1 file

2 folder - 2 file

3 file if copy karna h 1 file 2 file all content

PAGE NO.

DATE

(28) `cp -r Exp1.txt /OSLAB` →

To copy file into the folder.

(29) `grep -i "am student" Exp1.txt` →

To search the string in double quotes present in the text of given file.

(30) `echo` → If you want to print the text on the same terminal with `vi` editor.

(31) `more filename.txt` → merge the text of 2 files.

(32) ~~head~~ `head -n filename.txt` → To print only 1st 10 lines.

(33) `tail filename.txt` → To print last 10 lines.

(34) `head -5 filename.txt` → To print 1st five lines.

(35) `mv oldfilename newfilename` → To rename the file.

(36) `wc` → To count the words from file text.

o/p 23 46 382
 ↓ ↓ ↓
 lines words characters

(37) `history` → To print that how many commands we execute till now.

Types of OS →

Kernel → handles communication b/w hardware and operating system.

Shell → provide interface b/w user and OS.

bc → Used to do the mathematical tasks.

Ex → echo "4+5" | bc + Enter key

Op → 9

Ex → ② also used as a variable.

echo "var=10; var" | bc

Op → 10
= number.txt

Sort → To arrange in ascending order.

Example →

ls -l groupD.txt

vi groupD.txt

cat groupD.txt

Op →
~~sample~~

shiving
through

Sort -nr number.txt → In descending order

cat -b 1 groupD.txt →
To cat the ^{output} first letter from starting.

O/p →
U
S
S

cat -b 1, 2, 3 groupD.txt →
To cat first 3 letters from each string

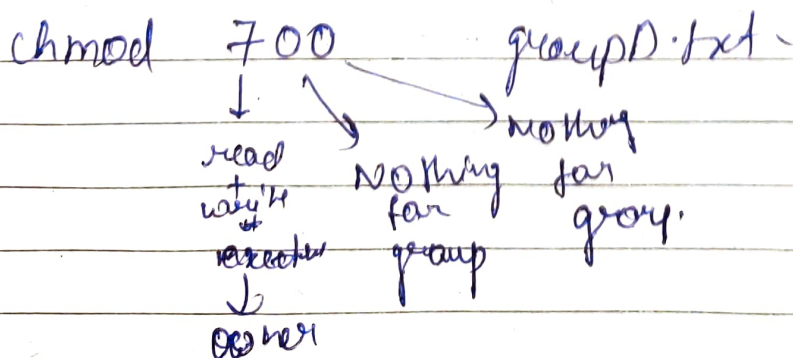
O/p →
Uma
Sha
She

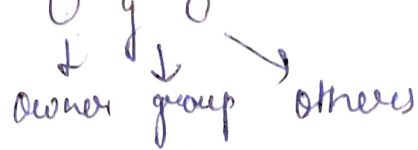
top → To show all the process which are working in back ground

chmod → To give permission for read, write, execute to the owner, group, other

read - 4 , write - 2 , execute - 1

ls -l groupD.txt
-rw-r--r--





~~O/p~~ → ls -l groupD.txt

-rwx - - - 1 - - -

Ex-2 `chmod 760 groupD.txt`

```

    graph TD
      O[Owner] --> Or[r]
      O --> Ow[w]
      O --> Oo[x]
      G[Group] --> Gr[r]
      G --> Gw[w]
      Ot[Others] --> Oot[ ]
  
```

Step-2 ls -l groupD.txt

O/p → -rwx rwx - - -
or

Example 3 `chmod u=r groupD.txt`
ls -l groupD.txt

O/p → -r - - -

Ex-4 `chmod 021 groupD.txt`
ls -l groupD.txt

O/p → -rwx - - -