

Linux Commands - Intermediate

terminal emulator

- a program that will let us use the terminal in graphical way.

Shell

- Command line interface that will take all our commands (executable file) as input and interpret it to tell operation system what to do.

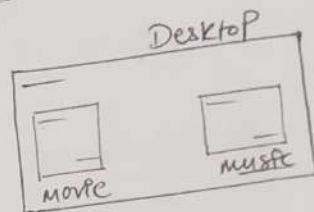
command prompt

- where we write commands.

Clay Jansen

① change directory - use to change the directories

- `[cd]` - change working directory to Home.
- `[cd foldername]` - enter inside the directory/sub-directory.
- `[cd ..]` - go to the previous directory.
- `[cd ../subdirectory]` - first come out of working directory and then enter another directory.



Example `~ cd`

`~ cd Desktop` - (Pwd - desktop)

`~ cd music` - (Pwd - music)

`~ cd ../movie` - 1st it will come out of music and enter another directory movie.

② Print working directory - shows the current working directory

- `[Pwd]`.

Example `~ cd Desktop`

`~ Pwd`

- Home/Desktop

③ Make directory - use to create directories/folders.

- `[mkdir foldername]`
- `[mkdir f1/f3]` - this will make f3 folder inside f1 but f1 must exist already.
- `[mkdir -p f1/f2/f3]`
 ↑ ↑
 Parent folder f2 will be created as - if create the directory and
 if required, all parent directories.

④ touch command - use to create the files.

- `[touch filename.extension]` -
- `[touch f1/file1.txt]` - make the file inside already existing subfolder f1.

(E) ls command

- [ls] - shows all the ^{hidden} unhidden items in pwd.
- [ls -a] - shows all the hidden items in pwd.
- [ls -l] - shows more info about unhidden items in pwd.
- [ls -la] - shows more info about hidden items in pwd.
- [ls -R] - shows all the files and sub-directories in all the sub-directories.
- [ls subdirectory] - shows all the files/folders in mentioned directories.

(F) clear command [clear] - clean the terminal prompt/command prompt.

(G) [where executable file] - gives the location of mentioned file.

(H) [man command] or [command --help] - gives info about command.

(I) echo command - use to display line of text/string passed as an argument and to override the text inside the file.

- [echo "set of strings"] - set of strings will display on command prompt.
- [echo filename > "string"] - string will override whatever written in file.
- [echo \$PATH] - displays all paths environment variables.

Example. `~ echo "Sukant Tekade"`
Sukant Tekade
`~ echo file.txt > "Hey"`



(J) concatenate - displays the contents of one or more files without having to open the file for editing.

- [cat filename] - display all the content inside file.
- [cat > filename] - it will create a new file in pwd.
- write content of the file → content inside of file.
- [ctrl + c] → disable the controls. or come out of the command.
- [cat file1.txt > file.txt] - copy content of f1 to f.

Example. `~ cat > file1.txt` `~ echo file1.txt > "Hey"`

`~ cat file.txt file1.txt` - display content inside f1 & f.

Hello Hey

`~ cat file.txt > file1.txt`

Hello Hello

(K) translate

- [cat filename | tr a-z A-Z] → convert lower to upper case.

Example

`~ cat file.txt | tr a-z A-Z`

HELLO

① Copy Command - copy content of one file to another

• `[cp file1.txt file2.txt]` - $f1 \rightarrow f2$

② move Command - move file/folder to another folder.

• `[mv file1.txt f1]` $file1.txt \rightarrow f1$

* `mv file.txt filechange.txt` rename the file/folder.

remove Command

* `rm file.txt` ← remove files permanently.

* `rm -R folder` ← remove folder permanently.

* `rm -f file.txt` ← remove file forcefully

* `rm -Rf folder` ← remove folder forcefully

* `rm -d folder` ← remove empty folder

`cp -R folder1 folder2` ← copy entire directory including its subdirectory & files to another directory.

df Command - use to check system disk space usage.

- `[df]` - shows space in kbps

- `[df -m]` - shows space in mbps

- `[df -h]` - shows space in human readable form in gigabyte

du Command - display disk usage statistics

- `[du]` - shows in kbps

- `[du -h]` - shows in human readable format

head Command - use to view first few lines of the files (by default 10 lines)

- `[head <filename.extension>]` - syntax

- `[head file.txt]` - shows first 10 lines of file.txt

- `[head -n 4 file.txt]` - shows first 4 lines of file.txt

tail Command - use to view last few lines of the files (by default 10 lines)

- `[tail file.txt]` - shows last 10 lines of file.txt

- `[tail -n 4 file.txt]` - shows last 4 lines of file.txt

diff Command - compares the content of the file line by line and output the line which not match the same / matches.

locate command - It gives location of the files

- [locate "*.txt"] - It will gives all the files of txt extension.

find command - use to find stuff (like files, directories ---)

* find <foldername> - listing folders & files inside the mentioned folder.

* find . -type f (<foldername>) - It will list only files inside the mentioned folder.

* find . -type d (<foldername>) - It will list only folders of current directory or of mentioned directory.
└── subdirectory ─┘

* find . -type f -name "file.txt" -

file name is case sensitive.

To make it non sensitive, we can write, find . -type -iname "file.txt".

* find . -type f -mmin 20 - displays all the files modified or created 20 mins ago.

* find . -type f -mtime 10 - displays all the files modified or created 10 days ago.

* find . -size +1k - display files greater than 1kb.

file permissions

- There are three types of people who are using the computer.

① user ② People ③ other.

For this people there are three types of permissions - read, write & execute.
Permission given to people.

Indicates d for only directory. → d rwx rwx rwx → Permission given to other.
Permission given to users.
r - read w - write x - executes

* read (r) - 4 * write (w) - 2 * execute (x) - 1

* read (r) + write (w) - 6 * read (r) + execute (x) - 5 - - -

changing the permission

- chmod 777 <file name> ← gives all types of permissions to all people.

- chmod 500 <file name> ← gives write & execute permission to user only.