**COMMADS IN LINUX:**

**File and Directory Operations Commads:**

* mkdir—create a directory
* ls—list files and directories
* ls -l—display files and directories with detailed information
* ls -la—shows all files and directories
* cd—change directory
* pwd—present working directory
* rm—remove files and directories
* -r—remove directories recursively
* -f—forceful removal without confirmation
* cp—copy files and directories
* cp -r—copy directories recursively
* mv—move/rename files and directories
* touch—create an empty file or update file
* cat—view the contents of a file
* head—display the first few lines of a file
* head -n—specify the number of lines to display(Ex:head -n 5)
* tail—display the last few lines of a file
* ln—create links between files
* ln -s create symbolic links
* find search for files and directories

**2.File Permission commands:**

* Chmod—change file permissions (EX: chmod u+rwx file name or chmod 0777 file name)
  + u—user/owner =: set permissions explicitly
  + g—group a—all
  + o—other x—execute(number—1)
  + +-- add r—read(number—4)
  + - :remove w—write(number—2)
* chown—change file ownership (Syntax--<ownername> <filename>)
* chgrp—change the ownership (Syntax--<groupname> <filename>)
* umask—set default file permissions

**Process Management commands:**

* ps—display running processes
* ps -aux—show all processes
* top—monitor system processes in real time
* kill—terminate a process
* pkill—terminate processes based on their name
* grep—used to search for specific patterns or regular expressions in text files or steams and display matching lines
  + -i—ignore case distinctions while searching
  + -v—invert the match, displaying non-matching lines
  + -r or -R—recursively search directories for matching patterns
  + -l—print only the names of files containing matches
  + -n—display line numbers alongside matching lines
  + -w—match whole words only, rather than partial matches
  + -c—count the number of matching lines instead of displaying them
  + -e—specify multiple patterns to search for
  + -A—display lines after the matching line
  + -B—display lines before the matching line
  + -C—display lines both before and after the matching line
* sleep 10—sleep for 10 seconds
* sleep 10 &--even if the process is running we can get the command prompt
* sort—sort lines of text files
* man(manually)---for help
* bg—background
* ps -ef—process running in background

**VI Editor:**

* **Modes of vi editor:**
* **Input**—can be edited
* **Command**—search & replace
* **Escape(esc)—**can’t be edited but can save it

**Description:** from input mode to command mode **press esc**

* To save : w
* To quit : q
* To quit without saving: q!
* To save and quit : wq
* dd—delete complete line
* u—for undo
* edit—e
* shift+$--end of the line
* dw—delete the word
* h—moves cursor left
* j—moves cursor down
* k—moves cursor up
* l—moves cursor right
* ^-- move cursor to beginning
* $-- move cursor to the end of line
* b—move cursor to backwards to the beginning
* save after opening the vi editor: w file name
* control-f—full page forward
* control-b—full page backward
* control-d—half page forward
* control-u—half page backward

**COMMAND FUNCTION**

i Insert text to left of cursor

l Insert text at beginning of line

a Appends text to right of cursor

A Appends text at the end of the line

o Opens line below

O Opens line above

R Replacing the text from cursor to right

rch Replaces single char at cursor with character

s Replaces single char at cursor with any number of chars

S Replace entire line

* man 3 printf > test.txt
* /---escape mode
* /str+enter—search (n for repeat)
  + Shift+N—backward
  + Shift+0—beginning
  + Shift+423—return back
* ?other—search(bottom to top)

**SET COMMAND:** Set command is used to customize the behaviour of the VI Editor.

* Shift: set nu---to get numbers
* Set ts=certain number
* Set autoindent
* ls -la.vimrc----to see
* vi.vimrc—create vimrc file
  + set autoindent
  + set number
  + set ts=4 (ts—tabstop)
* source .vimrc
* x—remove character (character by character deleting)
* r—replace character
* cw—change word
* dw—delete word
* shift+J—join a line
* O—adding above line
* yy—yanking🡪copy
* p—paste
* dd—for deleting
* y+3—copy lines from particular number
* d+3—delete lines from particular number
* uname—platform
* which ls—location of ls command
* which printf
* locate printf—location of all printf’s
* locate file name
* du—disk🡪shows which file occupy how many bits (dua -a)
* tar—compress
* gzip—filename.tar
* dll—dynamic link libraries