**1.LS**

* #ls
* #ll
* #ls -l
* #ls -la
* #ls -r
* #ls -d \*/
* #ls Document/
* #ls Document/\*.html
* #ls -ls
* #ls -d\*/
* #ls -li
* #ls -lt
* #ls -m
* #ls -F
* #ls -Q Add quotation mark to all directories
* #ls -i To get index node number of all directories
* #ls -R long listing directory trees
* #ls -lR
* #ls -lh
* #ls -ltr > output.txt

**2.CD**

* #cd
* #cd ~
* #cd/
* #cd ~/ec2-user change to user’s home directory
* #cd
* #cd “Mk Dir”
* #cd ‘Mk Dir’
* #cd Mk\ Dir

**3.MKDIR**

* #mkdir man
* #mkdir -v dir1
* #mkdir –-help
* #mkdir --version
* #mkdir dir1
* #mkdir dir1 dir2 dir3
* #mkdir -p dir1/dir2/dir3
* #mkdir -p names/{dir1,dir2,dir3}
* #mkdir –parents names/{dir1,dir2,dir3}

**4.CAT**

* #cat
* #cat > testfile.txt
* #cat -b testfile.txt
* #cat -s testfile.txt = cat testfile.txt
* #cat testfile.txt >> testfile1.txt
* #cat testfile.txt testfile1.txt > testfile2.txt
* #cat -e testfile2.txt equivalent to -Ve

**5.RMDIR**

* #mkdir testdir
* #rmdir testdir
* #mkdir -p dir/{dir1,dir2}

#rmdir dir\* = #rmdir -p dir\*

**Note: rmdir: failed to remove ‘dir’: Directory not empty**

**6.RM**

* #rm -rvf dir\*

**7.CP**

* #cp testfile1.txt testfile2.txt
* #cp testfile1.txt <directory-name>
* #cp \*.txt <directory-name>
* #cp -b <source-file> <destination-directory>

**Note:** It will take backup before copying file to directory

* #cp -r source-directory1 source-directory2 source-direcotry3

**8.TOUCH**

* #touch <file-name>
* #touch <file-name1> <file-name2> ..etc
* #touch <file-name>{1..10}
* #touch -a <file-name>

**Note:** Update only access time

* #touch -m <file-name>

**Note:** Update only modify time of file

**9.WHOAMI**

* #whoami

**10.SUDO**

* #sudo -v
* #sudo su
* #sudo -l
* #sudo apt-get update
* #whoami
* #sudo -u [different-user] whoami

Exmaple: *#sudo -u root whoami*

*#sudo -u root mkdir /home/testdir*

* #sudo bash
* #sudo !! **Execute previous commands with sudo**
* #sudo ls; whoami; hostname
* #man sudo
* #man su

**11.PWD**

* #pwd
* #pwd –version
* #pwd -P **Display symbolic path**
* #pwd -L **Display actual path**

**12.NANO**

**13.ECHO**

* #echo
* #echo “My \n name”

**Output:**

My

name

* **myval=25**

#echo $**myval**

X=21

* Echo “The Value of X is” $X”

**Note:** Variable declaration valid till session end

**14. TOP**

* #top
  + - **Press ‘í’** it display idle process ids’’’
    - **Press ‘c’** will display absolute path fo running process
    - **Press ‘z’’** running top command will display running process in color which may help you to identified running process easily.
    - **Press ‘s’ or ‘d’** enter value based on the value page will refresh
    - **Press ‘q’** for quit

#top -u <username>

top command with ‘**u**‘ option will display specific **User** process details.

* #top -n 1 -b > output.txt
* Top output keep refreshing until you press ‘**q**‘. With below command top command will automatically exit after 10 number of repetitions.

#top -n 10

**15.KILL**

* #pidof <program-name>
* #kill -KILL <process-id> **MORE POWER FULL COMMAND**
* #kill <process-id>
* #kill -9 <process-id> **MORE POWER FULL COMMAND**

**16.PS**

* #ps
* #ps -a All process that run on terminal
* #ps -u
* #ps -r To view current running process
* #ps f Display tree event parent to child
* #ps -ef -e option instructs PS to display all processes.

|  |  |  |  |
| --- | --- | --- | --- |
| **FILE-TYPE** | **USER** | **GROUP** | **OTHER** |
| **D-Directory** | **RWX** | **RWX** | **RWX** |

**17.CHMOD**

* #chmod --version
* #chmod u+r <file-name>
* #chmod u-r <file-name>
* #chmod u+w <file-name>
* #chmod a+rwx <file-name> user+group+other=a(all)
* #chmod g-r <file-name>
* #chmod o-r <file-name>
* #chmod a+rwx <file-name> <file-name>
* #chmod u-r,g-r,o-r <file-name> <file-name>

**OCTAL:**

|  |  |  |
| --- | --- | --- |
| **R W X** | **BINARY** | **OCTAL** |
| - ,- ,- | 000 | 0 |
| -,-,X | 001 | 1 |
| -,W,- | 010 | 2 |
| -,R,W | 011 | 3 |
| R,-,- | 100 | 4 |
| R,-,X | 101 | 5 |
| R,W,- | 110 | 6 |
| R,W,X | 111 | 7 |

* #chmod 400 <file-name> user has only read access
* #chmod 777 <file-name>
* #chmod 000 <file-name>

**18.WHICH**

Shows the full path of (shell) commands.

* #which <command-name>

#which ls

/bin/ls

#which cat

/bin/cat

**19.WHATIS**

display manual page descriptions

* #whatis <command-name>

**20.USERADD**

create a new user or update default new user information

* #useradd [options] username

#adduser [options] username

* Once a new user created, it’s entry automatically added to the ‘**/etc/passwd**‘ file.

#cat /etc/passwd

* #useradd -u <userid> <username>

#useradd -u 9001 navin

* #useradd -m withouhome
* #useradd -e 2021-09-09 <user-name>

#chage -l <user-name>

To set expire date of user

* #useradd -c <user-name>
* #useradd --help

**21.USERDEL**

* #userdel <user-name>
* #userdel -r <user-name>

**22.PASSWD**

* #passwd
* #passwd <user-name>
* #passwd -d <user-name> To delete passwd for user

**23.GROUPS**

* #groups
* #cat /etc/group
* #groupadd <group-name>

**24.GROUPDEL**

* #groupdel
* #groupdel <group-name>

**Assign user to particular group**

* #gpasswd -a <user-name> <group-name>

**25.GROUPMOD**

* #groupmod -n new\_groupname old\_group\_name
* #groupmod -g GID groupname

**26.BASHRC**

* #ls -a
* #vi .bashrc

**At the end of the file(enter below info and save and exit)**

#echo “Welcome To Linux”

Open new terminal, we can see “Welcome To Linux”

Message on top of terminal

**27.DF**

**To know Amount of space consumed by file system**

* #df
* #df -h
* #df -l Disk usage of local file system
* #df -k block size
* #df -a

If there is a need to display all file systems along with those which has zero block

* #df -l

**28.DU**

The output displays each directory's disk usage and path, along with the total disk usage of the parent directory

* #du
* #du -h
* #du -s Summary of directory size
* #du -k
* #du -m
* #du -t
* #du –time

**29.FREE**

Free command used to check the used and available space of **physical memory** and **swap memory** in **KB**.

* #free
* #free -b
* #free -k
* #free -m
* #free -t
* #free -s 5 (regular interval 5 sec)

**30.CLEAR**