LINUX — COMMANDS → L1

I — SYSTEM_ COMMANDS → → → →

```
------------------------------------------------------------------------
# sudo -i       --> Login as root user
# exit          --> Exit from current user
# whoami        --> Which user logged_in
# pwd           --> Current Working Directory
# cd            --> Change Directory
        # cd ..           -> Go back previous directory
        # cd ../..        -> Go back 2 previous directory
# ls            --> List Files / Directory in current path
# lshw          --> List hardware configuration information
# date          --> View date
# timedatectl    --> View time & Date
# hwclock       --> Display Hardware Clock
# uname -a      --> Displays system information: kernel version, machine type, and more.
( uname -a , -r , -v , -m )
# cal           --> Calander
# whoami        --> Displays the username of the current user
# clear         --> Clear the screen
# uname -a,-r,   --> Displays the Linux infromation
# uptime        --> Shows how long system is running
# last reboot    --> List system reboot history
# hostname      --> Shows the system hostname
# hostname -i    --> Show the IP address of System
# shutdown now   --> Shutdown my system / server
# finger username --> Displays information about a user
# top , htop ,btop--> View the running process
     * kill -9  -> to kill the running processor forcefuly
     * kill -15 -> to kill the running processor properly
# ps -ef         --> to view the running processor
     # ps -ef | grep ec2-user -> to view the particular processor
# cat /proc/cpuinfo --> CPU info
# cat /proc/meminfo --> Memory Info
# history        --> View history
    # HISTTIMEFORMAT="%Y-%m-%d %T " --> View complte history
    # history -c               --> Delete all command in history
    # history -d 32,26.02        --> Delete particular command in history
    # history then # !10         --> Run a command again in history list
```

I I — DIRECTORY / FILE _ COMMANDS → → → →

```
-------------------------------------------------------------------------
# mkdir Dir_1          --> Create a directory
   # mkdir Tester{0..5}    => Create 6 dir at time
   # rmdir -f Tester{0..5}  => Delete 6 dir at time.
# cp -r Dir_1 Dir_2     --> Copy Source _ Distination_Directory
# mv Dir_1 Dir_2       --> Move Source _ Distination_Directory
# diff Dir_1 Dir_2      --> Compare two DIRS and display differences.
-------------------------------------------------------------------------
# touch File_1                       --> Create a File without content
   # touch Developer{0..5}  => Create 6 dir at time
   # rm -f Developer{0..5}  => Delete 6 dir at time
# echo " My linux commands " > testing.txt --> Create a file with content
# cat > File_2                       --> Create a file with content
# cp File_1 Dir_2       --> Copy Source files _ Distination_Directory
# mv File_2 Dir_2       --> Move Source files _ Distination_Directory
# diff File_1 File_2    --> Compare two files and display differences.
-------------------------------------------------------------------------
# tail -f /var/log/syslog --> Check System logs @ Run_time ( IMPORTANT REAL TIME )
# less updates.txt <<< /// >>> more updates.txt => content page by page view
# head -10 updates.txt   --> Shows first 10 lines of file
# tail -10 updates.txt   --> Shows last 10 lines of file
```

III — VI / VIM _ EDITOR → → → → →

```
• # :wq     --> Save & Quit
• # :q!     --> quit force without saves
• # 3yy     --> Copy 3 lines <<< /// >>> p => Paste a lines
• # dd      --> delete single line ,3dd => delete 3 lines, x = backspace
• # :%d     --> Delete all lines
• # :set nu / :set nonu      --> Numbers settings
• # :2      --> Navigate that line
• # u       --> Undo
• # Ctrl+r   --> Redo
• # / = Search, downside >>> "n" upside >>>"shft+n" → next and next
• # :%s/uma/umasankar/g or gc => Search & Replace all in text file completely.
• # g + U + w & g+u+w => change uppercase to lower case
• # g + U + G & g + u + gg => all line uppercase & Lowercase
• # cntrl+z <<< /// >>> fg    --> Minimize and Maximize editor ( Must save& Exit before
close terminal )
• # gg        --> switch to the first line
• # shift + g   --> switch to the last line
```

IV — FILE COMPRESSION / TRANSFER_COMMANDS

```
# scp file_1 ec2-user@1.1.1.1 /home/ec2-user --> File transfer Server_1 to Server_2
# wget <URL>                --> Download any tool / file from internet
```

```
# sudo curl -O [link]          --> Transfer data to or from a server to Servers
# tar -cvzf [file/directory]    -->  Archive   [file/directory] using TAR_FORMAT
# tar -xvzf [file/directory.tar] --> Un-Archive [file/directory] using TAR_FORMAT
# gzip [file_name]             --> Archive   [file/directory] using  gzip_FORMAT
# gunzip [file_name.gz]         --> Un-Archive [file/directory] using gzip_FORMAT
```

V — NETWORKING / SSH _ COMMANDS → → →

```
# nmtui                  --> Change Host_name
# ifconfig                --> Show all IP address ( IP_V4 , IP_v6 )
# ping [remote_host]       --> Ping Servers ( communication_check )
# netstat -pnltu           --> Check TCP / UDP lister's port's
# host [domain_name]       --> Check Domain_IP
# hostname -i             --> Show local IP's address
# nslookup [domain_name]    --> Receive information about an internet domain

-------------------------------------------------------------------------------

# ssh -i ec2-user@1.1.1.1       --> Communication establishment SERVER to SERVERS
# ssh -keygen                 --> Creating Key_pairs
# ssh -p "1111" ec2-user@1.1.1.1 --> Connect to the host using a particular port
# sudo systemctl start sshd     --> Start sshd ( Demon_process )
```

VI — DISK_COMMANDS → → → →

```
# df -hi          --> Check free and used space on mounted systems
# lsblk           --> List Block
# du -ah , -sh     --> See disk usage for all filesand directories.
# free -h         --> Display free and usedmemory
# fdisk -l        --> Display disk partitions
# lshw            --> List Hardware info
```

VII — BOOTSTRAP → → → APACHE_INSTALLATION

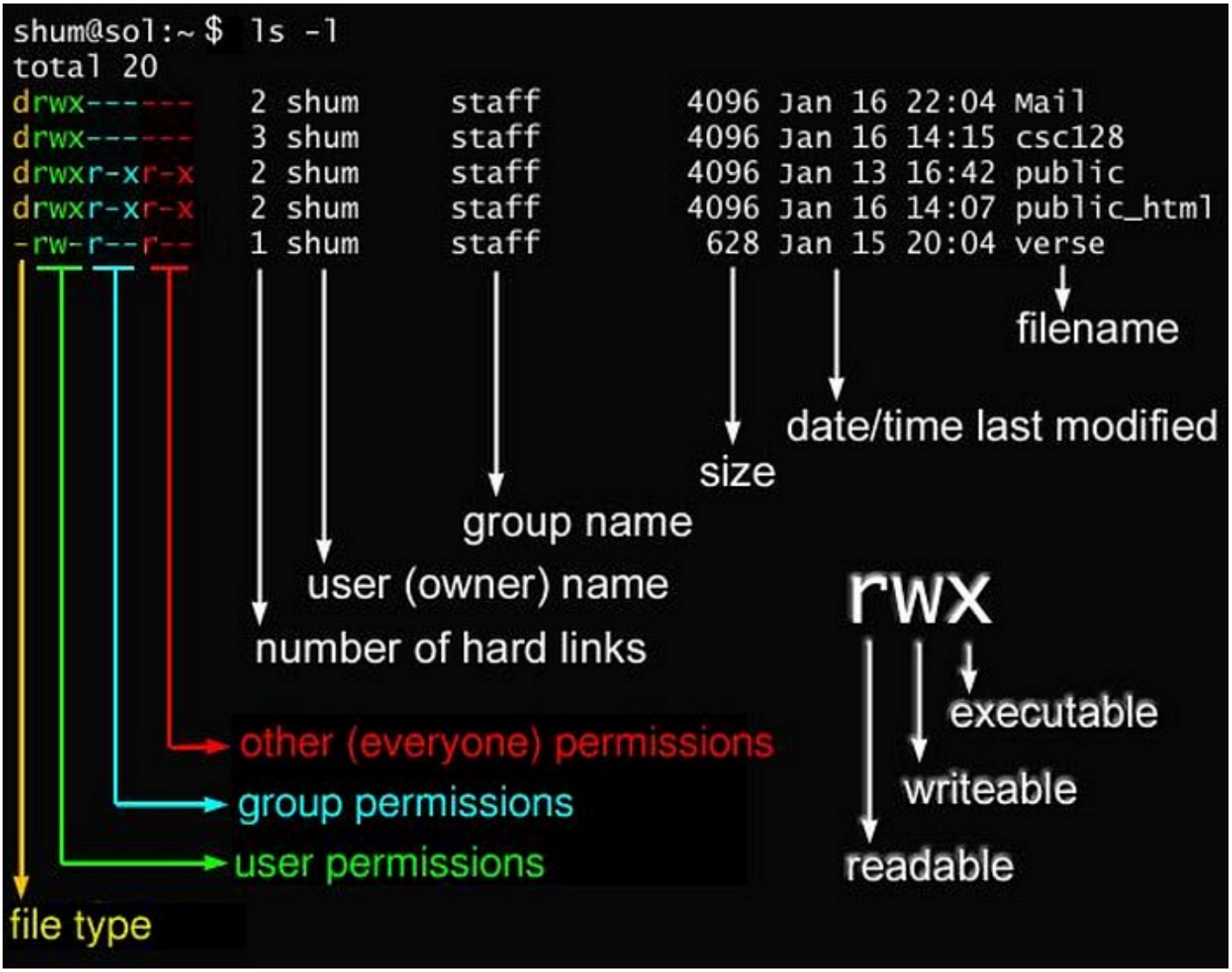
```
1, Redhat_LINUX -->
---------------
#! /bin/bash
sudo yum install httpd -y
```

```
systemctl start httpd
sudo yum update

2, Amazon_Linux -->
---------------
#! /bin/bash
sudo yum install httpd -y
systemctl start httpd
sudo yum update

3, UBUNTU_LINUX -->
---------------
#! /bin/bash
sudo apt-get update
sudo apt install apache2 -y
systemctl start apache2
sudo apt-get update
```

VII — Encrypt/decrypt via Linux_command

```
# echo "Sankar" -> Encrypt this variable / Password
# echo -n "Sankar" | base64 -> En encrypted
# echo -n "uty54yt55t5t5t6" | base64 - decode -> Decrypted
```

VIII — File / DIR CHANGE PERMISSION_ COMMAND



	4	2	1	
0	-	-	-	no permissions
1	-	-	x	only execute
2	-	w	-	only write
3	-	w	x	write and execute
4	r	-	-	only read
5	r	-	x	read and execute
6	r	w	-	read and write
7	r	w	x	read, write and execute

```
* R - read   -> 4
* W - Write  -> 2
* X - excute  -> 1

# ls -larth                 --> List files / Dirs
# chmod 754 file_name         --> Change permission File_name
# chmod U=rwx,  G=rx-,   O=-r- file_name

# chmod 777 Sathish  => Set full permission ( File / Directory )
```

IX — File / DIR CHANGE PERMISSION_ COMMAND

```
# id                --> See details about theactive users
# last               --> Show the last system logins
# who               --> Display who is currently logged into the system
# sudo useradd sankar_1  --> Create new user
# passwd sankar_1      --> Create Password
# finger ubuntu        --> Show user information
# su - sankar_1        --> Login as sankar_1 ( USER )
# sudo userdel sankar_1  --> Delete user
```

X — KEY_BOARD SHORTCUTS → → →

```
# Ctrl + C      --> Kill running process
# Ctrl + Z      --> Stop the current process
# Ctrl + W      --> Cut one word before the cursor
# Ctrl + U      --> Cut part of the line before the cursor
# Ctrl + K      --> Cut part of the line after the cursor
# Ctrl + Y      --> Paste from clipboard
# Ctrl + R      --> Recall the last command that matches the provided characters.
# !!           --> run again last command
# exit         --> Log out of the current session
```