

Commands on Kali Linux

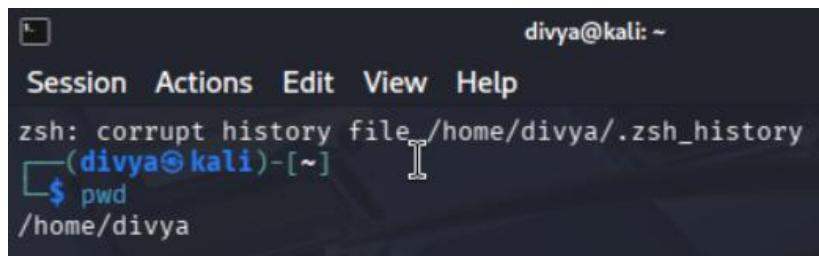
Name: Divya Bhogle.

Intern No:2043

Task1:(Kali Linux -command)

1. To display prevent working directory

Command: pwd

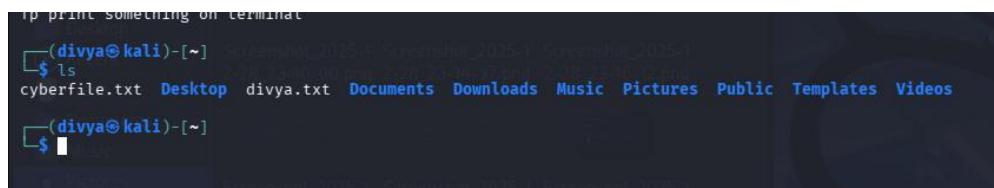


```
divya@kali: ~
Session Actions Edit View Help
zsh: corrupt history file /home/divya/.zsh_history
└─(divya@kali)-[~] └─$ pwd
/home/divya
```

This command will display the current directory you are in.

2. To list the directories and files in the current directory

Command: ls



```
ip print something on terminal
└─(divya@kali)-[~] └─$ ls
cyberfile.txt Desktop divya.txt Documents Downloads Music Pictures Public Templates Videos
└─(divya@kali)-[~] └─$
```

This command will display the list of files and directories in the current directory.

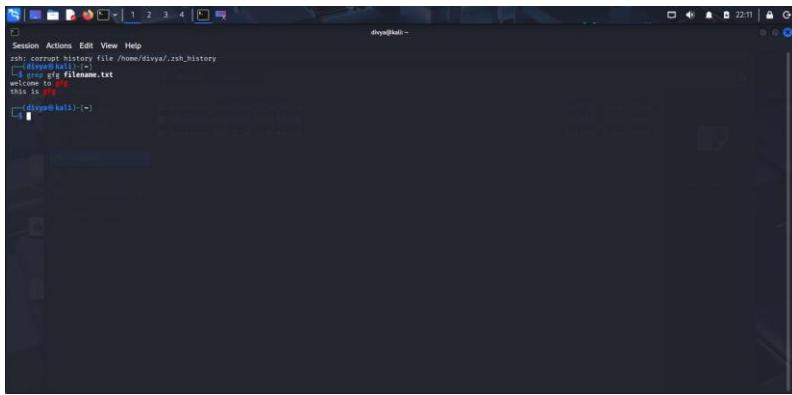
3. To change the current working directory

Command: cd

This command will change the directory you are currently working on.

4. Search for a Word in a File

Command: grep keyword filename

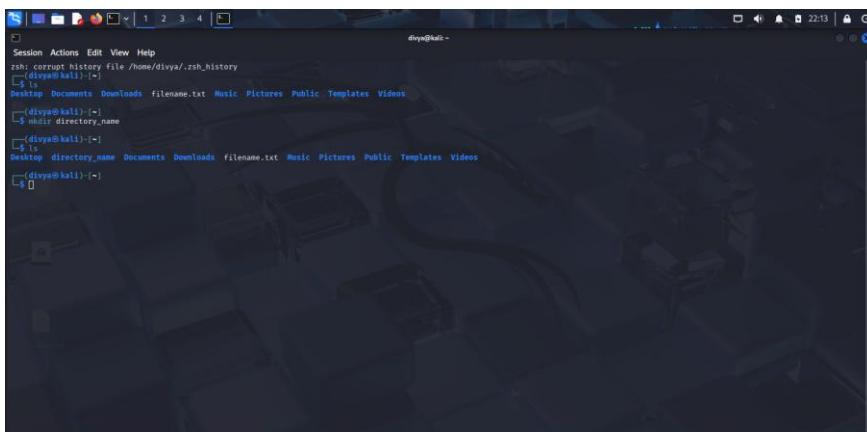


```
Session Actions Edit View Help
zsh: corrupt history file /home/divya/.zsh_history
[divya@kali:~] $ grep filename.txt
[divya@kali:~] $
```

This command searches for a specific keyword or pattern inside a file and displays matching lines.

5. To create a new directory

Command: `mkdir directory_name`

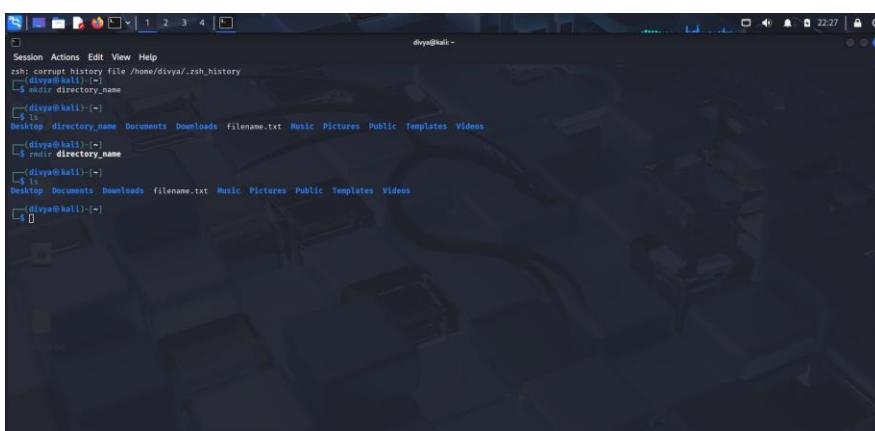


```
Session Actions Edit View Help
zsh: corrupt history file /home/divya/.zsh_history
[divya@kali:~] $ mkdir directory_name
[divya@kali:~] $ ls
Desktop Documents Downloads filename.txt Music Pictures Public Templates Videos
[divya@kali:~] $ ls
Desktop directory_name Documents Downloads filename.txt Music Pictures Public Templates Videos
[divya@kali:~] $
```

This command will create a new directory in the current folder with the name `directory_name`.

6. To remove a directory

Command: `rmdir directory_name`

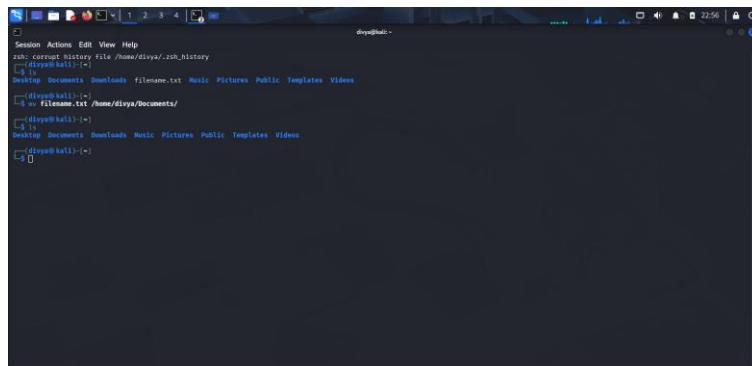


```
Session Actions Edit View Help
zsh: corrupt history file /home/divya/.zsh_history
[divya@kali:~] $ rmdir directory_name
[divya@kali:~] $ ls
Desktop Documents Downloads filename.txt Music Pictures Public Templates Videos
[divya@kali:~] $ ls
Desktop Documents Downloads filename.txt Music Pictures Public Templates Videos
[divya@kali:~] $
```

This command will remove the directory with the name `directory_name` from the current directory.

7.To move a file

Command: mv source destination

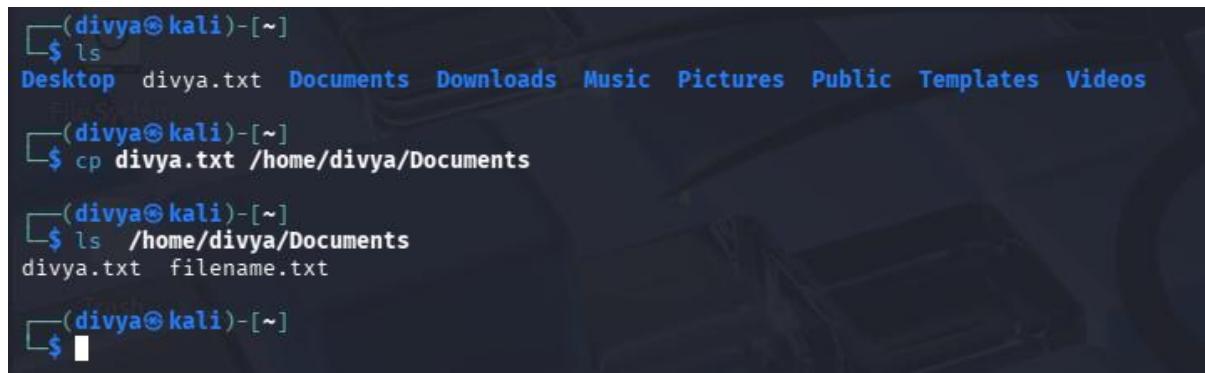


```
divya@kali:~$ mv filename.txt /home/divya/Documents/
divya@kali:~$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
divya@kali:~$
```

This command is used to move a file from one location to another.

8.To copy a file

Command: cp source destination

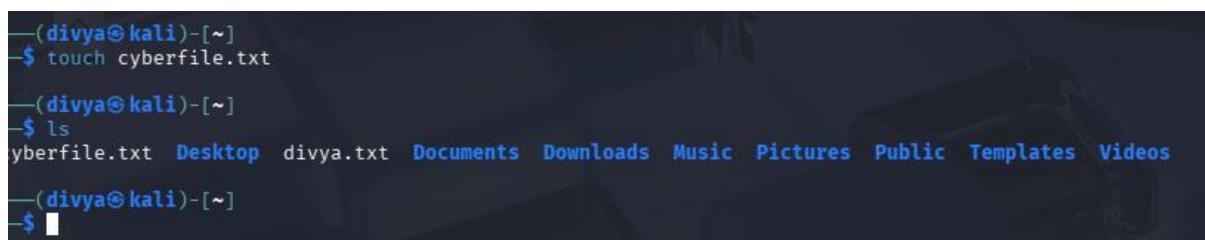


```
(divya@kali)~$ ls
Desktop divya.txt Documents Downloads Music Pictures Public Templates Videos
(divya@kali)~$ cp divya.txt /home/divya/Documents
(divya@kali)~$ ls /home/divya/Documents
divya.txt filename.txt
(divya@kali)~$
```

This command will copy the file from the source to the destination.

9. To create a new file

Command: touch filename

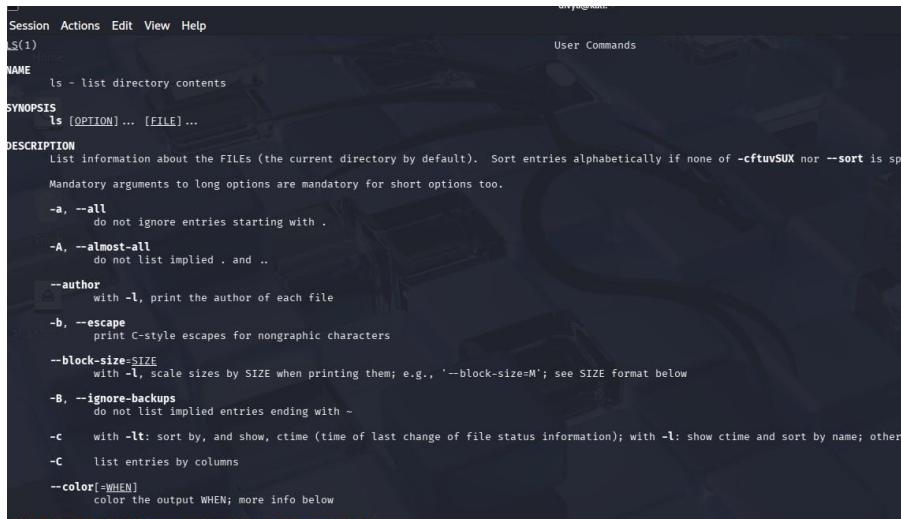


```
(divya@kali)~$ touch cyberfile.txt
(divya@kali)~$ ls
cyberfile.txt Desktop divya.txt Documents Downloads Music Pictures Public Templates Videos
(divya@kali)~$
```

This command will create a new file with the name "filename".

10.To display manual of a command

Command: man ls

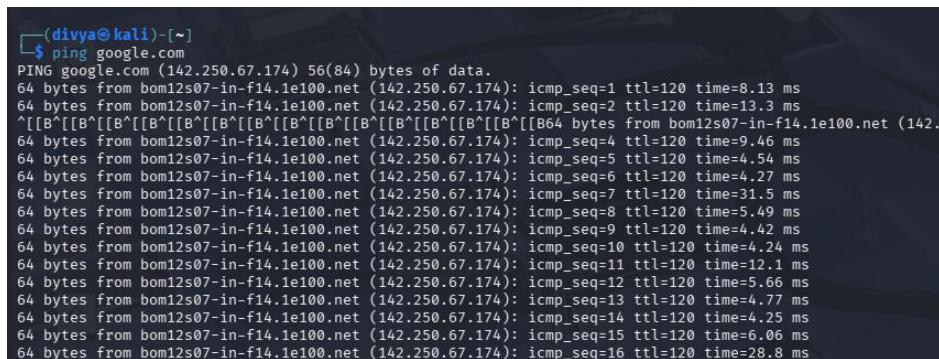


The screenshot shows a terminal window with the title bar "divya@kali". The window displays the man page for the "ls" command. The "NAME" section defines "ls" as "list directory contents". The "SYNOPSIS" section shows the command as "ls [OPTION] ... [FILE] ...". The "DESCRIPTION" section provides detailed information about the command's behavior, including sorting options like "-cftuvSUX" and "--sort", and various file selection and display options like "-a", "-A", "-b", "-B", "-c", and "--color". The text is in a monospaced font.

This command will display a manual or a user guide for the command.

11. To check the internet connection or to check whether the host is active or not.

Command: ping google.com

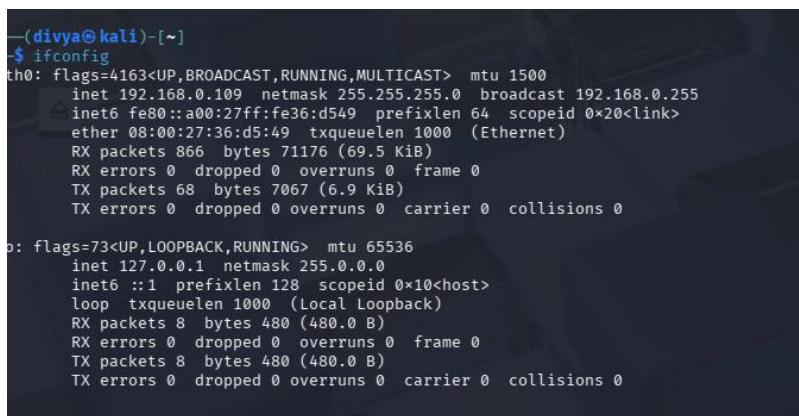


The screenshot shows a terminal window with the title bar "divya@kali". The command "ping google.com" is run, and the output shows multiple ICMP echo requests being sent to the IP address 142.250.67.174. Each line of output shows the source and destination IP addresses, the sequence number (icmp_seq), TTL, time taken, and the data size (56 bytes). The ping continues for several seconds, with each packet taking approximately 28.8 ms.

This command will send some packets to the mentioned host and will give us output about the details of what is the status of the packet. This command could be used to check the internet connection

12. To display network interface details.

Command: ifconfig



The screenshot shows a terminal window with the title bar "divya@kali". The command "ifconfig" is run, displaying details for two network interfaces: "eth0" and "lo". The "eth0" interface is an Ethernet connection with an IP of 192.168.0.109, a netmask of 255.255.255.0, and a broadcast address of 192.168.0.255. It has an MTU of 1500 and is currently up and running. Statistics for RX and TX show 866 bytes received and 71176 bytes transmitted. The "lo" interface is a loopback connection with an IP of 127.0.0.1, a netmask of 255.0.0.0, and a broadcast address of 127.0.0.1. It also has an MTU of 65536 and is up and running. Both interfaces have a scope ID of 0x20 and are marked as broadcast and multicast capable.

This command is used to display the details of the network interfaces connected to the system.

13. To download a file

Command: wget link_to_file

```
(divya㉿kali)-[~]
$ wget https://pixabay.com/photos/
--2025-12-28 23:14:16--  https://pixabay.com/photos/
Resolving pixabay.com (pixabay.com) ... 172.64.147.160, 104.18.40.96, 2a06:98c1:3107::6812:2860, ...
Connecting to pixabay.com (pixabay.com)|172.64.147.160|:443... connected.
HTTP request sent, awaiting response... 403 Forbidden
2025-12-28 23:14:16 ERROR 403: Forbidden.

(divya㉿kali)-[~]
$ ls
cyberfile.txt  Desktop  divya.txt  Documents  Downloads  Music  Pictures  Public  Templates  Videos
(divya㉿kali)-[~]
```

This command will download the file from the link entered in the command.

14. To install a package

Command: sudo apt install package_name

```
(divya㉿kali)-[~]
$ ls
cyberfile.txt  Desktop  divya.txt  Documents  Downloads

(divya㉿kali)-[~]
$ sudo apt install netcat
[sudo] password for divya:
Package netcat is a virtual package provided by:
 netcat-traditional 1.10-50.1
 netcat-openbsd 1.234-1
You should explicitly select one to install.
```

sudo apt install netcat

This command is used to install the mentioned package in the system.

15. To remove a package

Command: sudo apt remove package_name

```
(divya㉿kali)-[~]
$ sudo apt remove netcat
Virtual packages like 'netcat' can't be removed
The following packages were automatically installed and are no longer required:
 curlftpfs  libavfilter10  libavformat61  libconfig-inifiles-perl  libfuse2t64  lib
Use 'sudo apt autoremove' to remove them.

Summary:
 Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 6

(divya㉿kali)-[~]
```

sudo apt remove netcat

This command will remove the mentioned package from the system.

16. To upgrade packages in the system

Command: sudo apt upgrade

```
Upgrading: 0, Installing: 0, Removing: 0, NOT Upgrading: 0
[divya@kali)-[~]
$ sudo apt upgrade
The following packages were automatically installed and are no longer required:
  curlftpfs libavfilter10 libavformat61 libconfig-inifiles-perl libfuse2t64 libpocketsphinx1
Use 'sudo apt autoremove' to remove them.

Not upgrading:
  libavfilter10 libavformat61 libavutil59 libswscale8 nodejs python3-tables-lib

Summary:
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 6
```

This command will upgrade all the packages in the system.

17. To fetch the packages updates

Command: sudo apt update

```
Session Actions Edit View Help
zsh: corrupt history file /home/divya/.zsh_history
[divya@kali)-[~]
$ sudo apt update
[sudo] password for divya:
Sorry, try again.
[sudo] password for divya:
Hit:1 http://http.kali.org/kali kali-rolling InRelease
6 packages can be upgraded. Run 'apt list --upgradable' to see them.

[divya@kali)-[~]
$
```

This command will check for updates of all the packages and will add the updates in the list to upgrade.

18.To get the current username

Command: whoami

```
[divya@kali)-[~]
$ whoami
divya

[divya@kali)-[~]
$
```

This command is used to print the username of the current user.

19.To change the current user to superuser or root

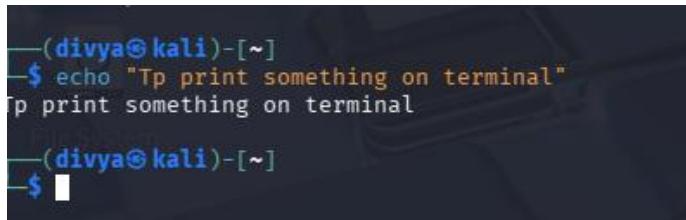
Command: sudo su

```
[divya@kali)-[~]
$ sudo su
[root@kali)-[/home/divya]
#
```

This command will ask for a password and will change the current user to root.

20. Print Text on the Terminal

Command: echo " To print something on terminal"

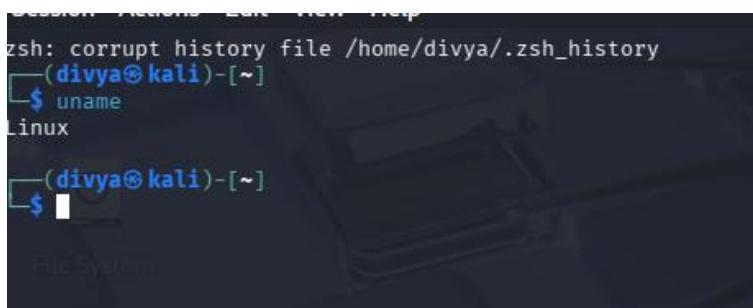


```
(divya@kali)-[~]
$ echo "Tp print something on terminal"
Tp print something on terminal
(divya@kali)-[~]
$
```

The command will print the mentioned text on the terminal.

21.uname

Command: uname



```
zsh: corrupt history file /home/divya/.zsh_history
(divya@kali)-[~]
$ uname
Linux
(divya@kali)-[~]
$
```

The uname command in Linux is used to display system information.

- Shows operating system details.
- Helps identify the system.

22.wc

Command: wc file_name



```
(divya@kali)-[~]
$ wc test.txt
 6 7 23 test.txt

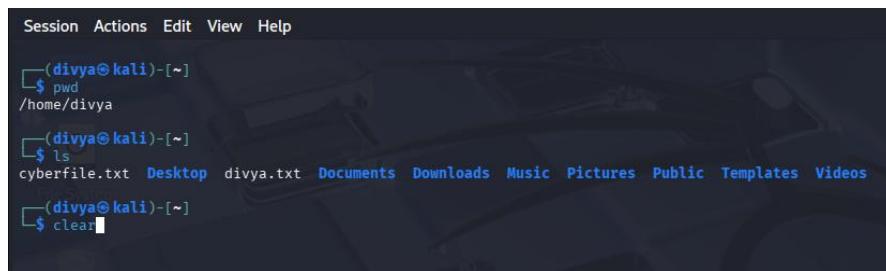
(divya@kali)-[~]
$ cat test.txt
3
hello divyaa
5
7
3
1
```

The wc command in Linux is used to count words, lines, and characters.

- Counts file statistics.
- Useful for text analysis

23.Clear

Command: clear



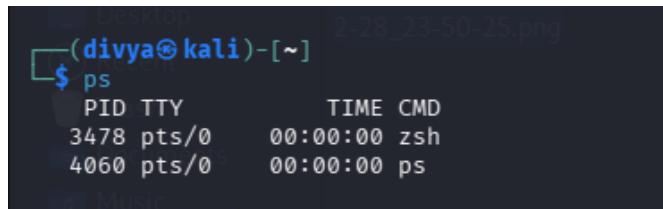
```
Session Actions Edit View Help
└─(divya㉿kali)-[~]
  $ pwd
  /home/divya
  └─(divya㉿kali)-[~]
    $ ls
    cyberfile.txt Desktop divya.txt Documents Downloads Music Pictures Public Templates Videos
  └─(divya㉿kali)-[~]
    $ clear
```

The clear command in Linux is used to clear the terminal screen.

- Removes previous outputs.
- Keeps the terminal clean.

24.ps

Command: ps



```
└─(divya㉿kali)-[~]
  $ ps
  PID TTY          TIME CMD
  3478 pts/0    00:00:00 zsh
  4060 pts/0    00:00:00 ps
```

The ps command in Linux is used to display running processes.

- Shows active processes.
- Helps monitor system activity.

25.sort

Command: sort file_name



```
zsh: corrupt history file /home/divya/.zsh_history
└─(divya㉿kali)-[~]
  $ cat test.txt
  3
  hello divyaa
  5
  7
  3
  1
  FileSystems

  └─(divya㉿kali)-[~]
    $ sort test.txt
  1
  3
  3
  5
  7
  hello divyaa
```

The sort command in Linux is used to sort file contents.

- Sorts data alphabetically.
- Supports numeric sorting.

26.cal

Command: cal

```
(divya㉿kali)-[~]
$ cal
December 2025
Su Mo Tu We Th Fr Sa
      1  2  3  4  5  6
 7  8  9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31
```

The cal command in Linux is used to display the calendar.

- Shows month calendar.
- Useful for date reference.

27.whereis

Command: whereis command_name

```
Session Actions Edit View Help
zsh: corrupt history file /home/divya/.zsh_history
(divya㉿kali)-[~]
$ whereis ls
ls: /usr/bin/ls /usr/share/man/man1/ls.1.gz

(divya㉿kali)-[~]
```

The whereis command in Linux is used to locate command files.

- Shows binary location.
- Finds command paths.

28.df

Commamnd:df [options]

```
Session Actions Edit View Help
zsh: corrupt history file /home/divya/.zsh_history
(divya㉿kali)-[~]
$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            2.2G   0    2.2G  0% /dev
tmpfs           464M 1012K 463M  1% /run
/dev/sda1        24G   16G  6.7G 70% /
tmpfs           2.3G  4.0K  2.3G  1% /dev/shm
none            1.0M   0    1.0M  0% /run/credentials/systemd-journald.service
tmpfs           2.3G  8.0K  2.3G  1% /tmp
Cybersecurity   476G  220G  257G 47% /media/sf_Cybersecurity
none            1.0M   0    1.0M  0% /run/credentials/getty@tty1.service
tmpfs           464M 108K  464M  1% /run/user/1000

(divya㉿kali)-[~]
```

The `df` command in Linux is used to display disk space usage.

- Shows file system usage.
- Helps monitor storage.

29.NSlookup

Command: `nslookup [domain_name]`

```
1
└─(divya㉿kali)-[~]
$ nslookup google.com
;; communications error to 192.168.0.1#53: timed out
Server:      192.168.0.1
Address:     192.168.0.1#53

Non-authoritative answer:
Name:   google.com
Address: 142.250.67.206
;; communications error to 192.168.0.1#53: timed out
Name:   google.com
Address: 2404:6800:4009:813::200e
```

Nslookup (stands for “Name Server Lookup”) is a useful command for getting information from the DNS server. It is a network administration tool for querying the Domain Name System (DNS) to obtain domain name or IP address mapping or any other specific DNS record. It is also used to troubleshoot DNS-related problems.

30.Traceroute

Command: `traceroute[domain_name]`

```
zsh: corrupt history file /home/divya/.zsh_history
└─(divya㉿kali)-[~]
$ traceroute google.com
traceroute to google.com (142.250.67.174), 30 hops max, 60 byte packets
 1  192.168.0.1 (192.168.0.1)  12.095 ms  11.273 ms  3.294 ms
 2  * * *
 3  72.14.219.218 (72.14.219.218)  6.342 ms * *
 4  * * *
 5  142.251.77.94 (142.251.77.94)  10.728 ms 192.178.86.246 (192.178.86.246)  10.388 ms 1
 6  142.250.226.66 (142.250.226.66)  9.038 ms 142.250.227.73 (142.250.227.73)  6.078 ms
 7  142.250.67.174 (142.250.67.174)  4.317 ms 192.178.110.207 (192.178.110.207)  5.989 ms
```

The traceroute command in Linux is a network diagnostic tool used to track the path that data packets take from your computer to a destination. It sends packets across the internet and shows you every "hop" (router or server) it passes through along the way, as well as how long each step takes.

31.Watch

Command: `watch [option] command`

Example: `watch -d free -m`

A screenshot of a terminal window titled 'Session Actions Edit View Help'. It displays the output of the 'free -m' command. The output shows memory usage in megabytes:

	total	used	free	shared	buff/cache	available
Mem:	4634	979	2847	14	1041	3655
Swap:	1358	0	1358			

This option highlights the differences between successive updates. The options will be going to read the optional argument which changes highlight to be permanent, allowing the user to see what has changed at least once since the first iteration.

32.Type

Command : type [option] command_name

Example: type -a pwd

A screenshot of a terminal window titled 'Session Actions Edit View Help'. It displays the output of the 'type -a pwd' command. The output shows that 'pwd' is a shell builtin command located in /usr/bin/pwd.

```
zsh: corrupt history file /home/divya/.zsh_history
└─(divya㉿kali)-[~]
$ type -a pwd
pwd is a shell builtin
pwd is /usr/bin/pwd
pwd is /bin/pwd
└─(divya㉿kali)-[~]
$
```

The **type** command in Linux is a useful utility for identifying how the shell will interpret a given command. It provides information on whether a command is a shell built-in, external binary, function, or alias, helping users understand the source of the command and its behavior.

33.history

A screenshot of a terminal window titled 'Session Actions Edit View Help'. It displays the output of the 'history' command, which lists previously executed commands:

```
zsh: corrupt history file /home/divya/.zsh_history
└─(divya㉿kali)-[~]
$ history
1 sudo apt update && sudo apt upgrade -y
2 cat /etc/os-release
3 sudo apt install htop
4 htop
5 sudo apt install -y virtualbox-guest-utils virtualbox-guest-x11
6 reboot
7 reboot
```

Displays a list of previously executed commands in the terminal and helps users quickly reuse or review past commands.

34.tree

Command : tree

```
/ reboot
└─(divya㉿kali)-[~]
$ tree
.
├── cyberfile.txt
├── Desktop
│   └── divya.txt
├── divya.txt
├── Documents
│   └── divya.txt
│       └── filename.txt
├── Downloads
├── Music
├── Pictures
│   ├── Screenshot_2025-12-29_13-06-19.png
│   ├── Screenshot_2025-12-29_13-08-34.png
│   ├── Screenshot_2025-12-29_13-16-34.png
│   ├── Screenshot_2025-12-29_13-26-27.png
│   ├── Screenshot_2025-12-29_13-35-28.png
│   ├── Screenshot_2025-12-29_13-39-30.png
│   ├── Screenshot_2025-12-29_13-42-43.png
│   └── Screenshot_2025-12-29_13-50-21.png
├── Public
├── Templates
└── test.txt
└── Videos

9 directories, 13 files
```

The tree command in Linux displays the directory structure in a hierarchical, tree-like format, providing a clear visual representation of files and subdirectories.

- tree command helps visualize the organization of the filesystem.
- It can include hidden files and limit the depth of display.
- Useful for quickly analyzing complex directory structures.

35.finger

Command : finger [name]

```
└─(divya㉿kali)-[~]
$ finger divya
Login: divya                                Name: Divya Bhogle
Directory: /home/divya                         Shell: /usr/bin/zsh
Never logged in.
No mail.
No Plan.
```

The finger command is a user information lookup utility in Linux that displays details about users currently logged into the system. It is not installed by default in Kali Linux (a Debian-based distribution) but can be easily added.

36.IP route

```
└─(divya㉿kali)-[~]
$ ip route
default via 192.168.0.1 dev eth0 proto dhcp src 192.168.0.109 metric 100
192.168.0.0/24 dev eth0 proto kernel scope link src 192.168.0.109 metric 100
```

The ip route command (often abbreviated as ip r) is the modern and recommended way to view and manipulate the IP routing table in Kali Linux. The older route command is considered deprecated but can still be installed and used if necessary.

37.Last

```
(divya㉿kali)-[~]
$ last
Command 'last' not found, but can be installed with:
sudo apt install wtmpdb
Do you want to install it? (N/y)
sudo apt install wtmpdb
[sudo] password for divya:
The following packages were automatically installed and are no longer required: ~
  curlftpfs libavfilter10 libavformat61 libconfig-inifiles-perl libfuse2t64 lib
Use 'sudo apt autoremove' to remove them.

default via 192.168.0.1 dev eth0
  192.168.0.102 dev eth0

Installing:
  wtmpdb

Installing dependencies:
  libpam-wtmpdb

Summary:
  Upgrading: 0, Installing: 2, Removing: 0, Not Upgrading: 6
  Download size: 33.8 kB
  Space needed: 122 kB / 7,068 MB available
```

In Kali Linux, the term "last command" can refer to two different things: a specific system utility command called `last`, or the most recently executed command in your terminal history

38.lsblk

```
(divya㉿kali)-[~]
$ lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
sda      8:0    0  25G  0 disk
└─sda1   8:1    0 23.7G  0 part /
└─sda2   8:2    0    1K  0 part
└─sda5   8:5    0  1.3G  0 part [SWAP]
sr0     11:0    1 1024M  0 rom
```

The `lsblk` command in Kali Linux (and other Linux distributions) is a utility used to **list information about all available block devices**. It presents the information in a tree-like format by default, making it easy to visualize the relationships between physical disks and their partitions.

