

Kali Linux Commands

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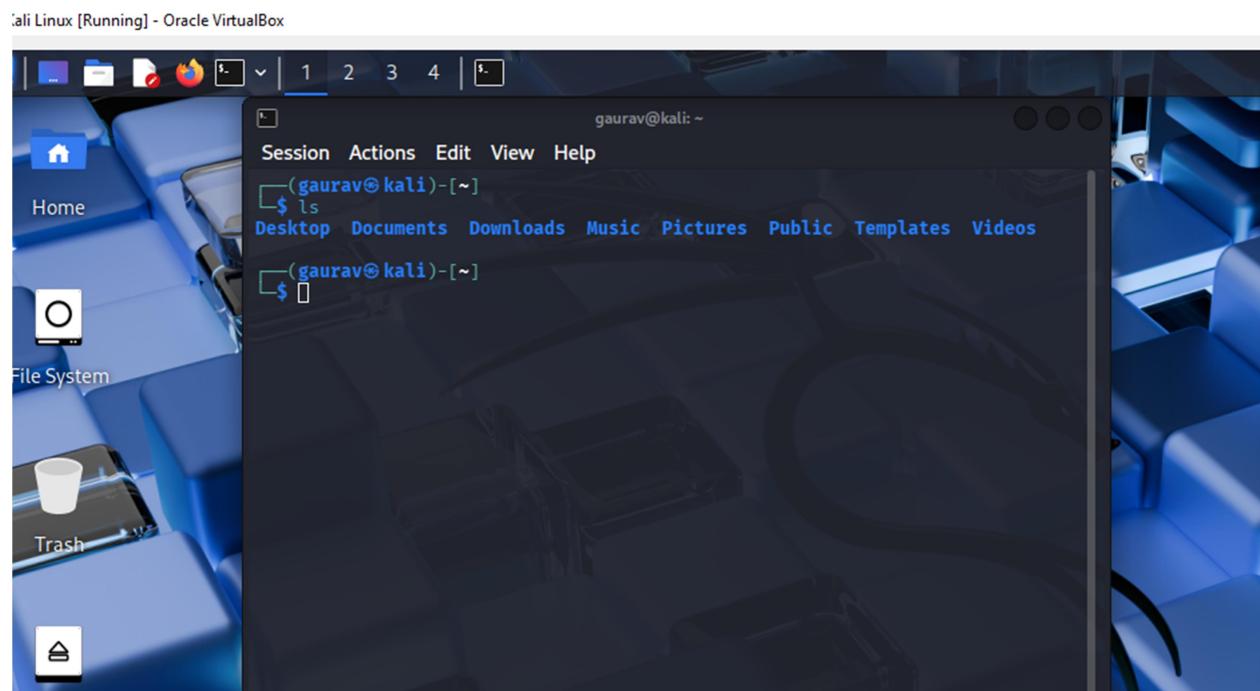
Intern Id: 2036

Commands:

1) ls :

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

Output:



The screenshot shows a terminal window titled 'gaurav@kali: ~'. The window contains the following text:

```
Session Actions Edit View Help
[(gaurav@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
$ ]
```

2) pwd:

Description: This command will display the current directory you are in.

Output:

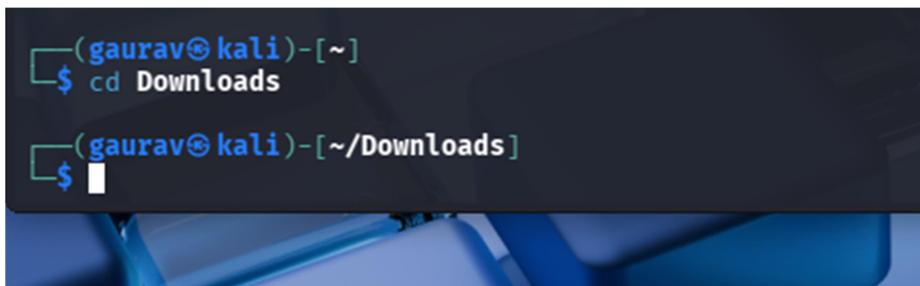


```
(gaurav㉿kali)-[~]
$ pwd
/home/gaurav
(gaurav㉿kali)-[~]
$
```

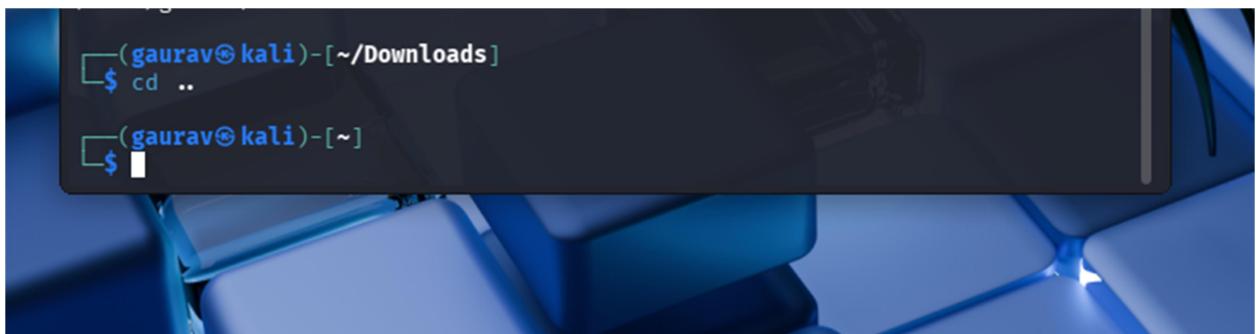
3) cd:

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

Output:



```
(gaurav㉿kali)-[~]
$ cd Downloads
(gaurav㉿kali)-[~/Downloads]
$
```

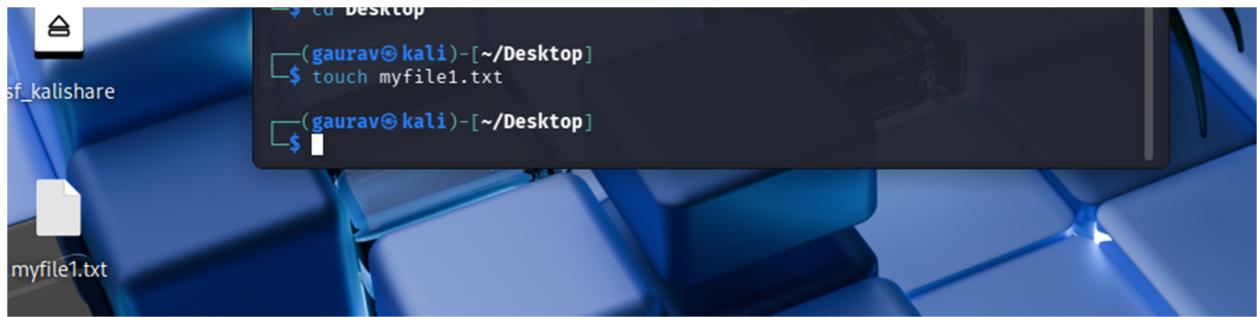


```
(gaurav㉿kali)-[~/Downloads]
$ cd ..
(gaurav㉿kali)-[~]
$
```

4) touch:

Description: The touch command is used to **create empty files** and to **update timestamps** (access and modification time) of existing files without changing their content.

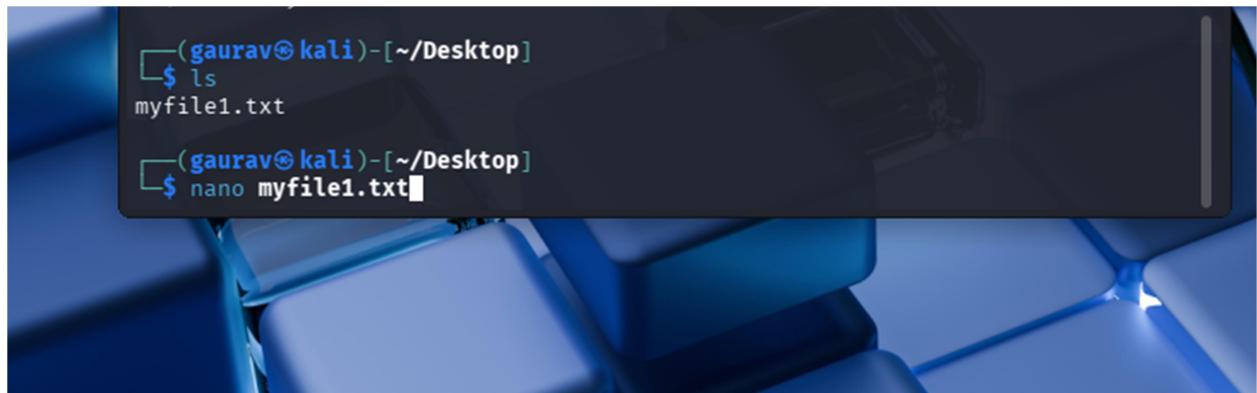
Output:



5) nano:

Description: nano is a **simple, user-friendly terminal text editor** used to **create and edit files** directly from the command line. It is ideal for beginners and commonly used in Kali Linux for editing configuration files, scripts, and notes.

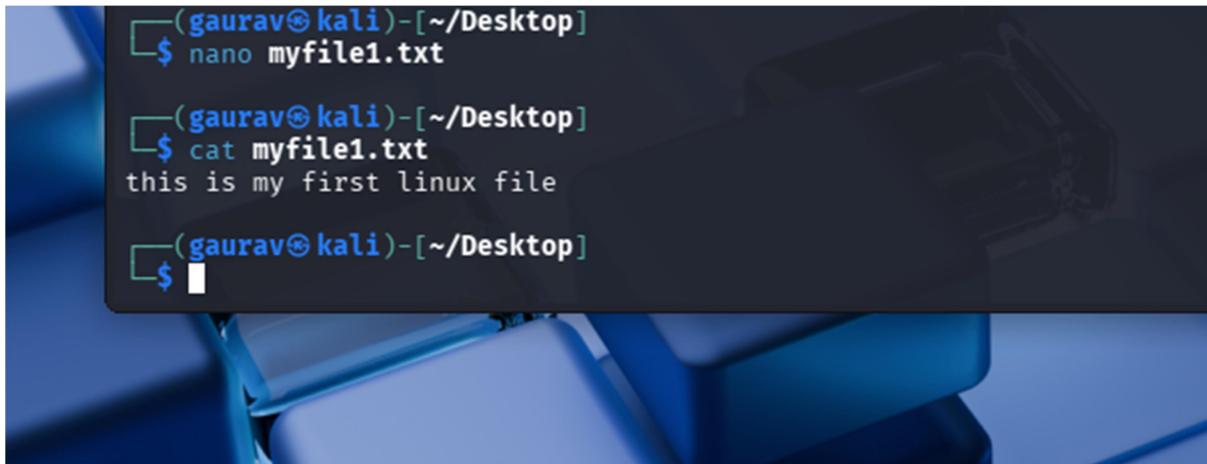
Output:



6) cat:

Description: cat (concatenate) is used to **display file contents**, **combine multiple files**, and **create small text files** directly from the terminal. It is one of the most basic and commonly used Linux commands.

Output:



```
(gaurav㉿kali)-[~/Desktop]
$ nano myfile1.txt

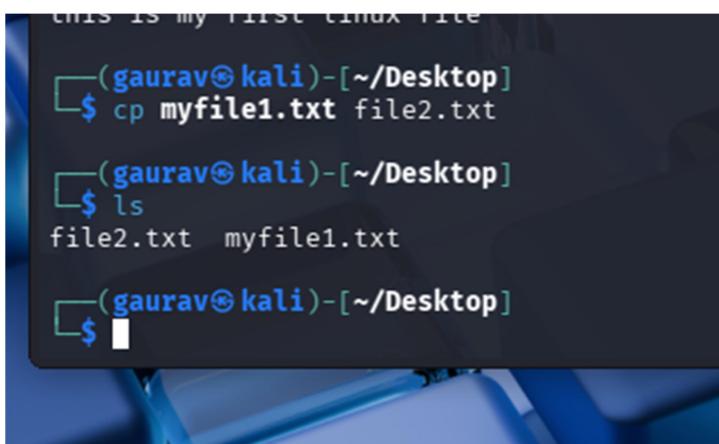
(gaurav㉿kali)-[~/Desktop]
$ cat myfile1.txt
this is my first linux file

(gaurav㉿kali)-[~/Desktop]
$
```

7) cp:

Description: The cp (copy) command is used to **copy files and directories** from one location to another. It is commonly used for **backups, file duplication, and system administration** in Kali Linux.

Output:



```
this is my first linux file
(gaurav㉿kali)-[~/Desktop]
$ cp myfile1.txt file2.txt

(gaurav㉿kali)-[~/Desktop]
$ ls
file2.txt myfile1.txt

(gaurav㉿kali)-[~/Desktop]
$
```

8) rm:

Description: The rm (remove) command is used to **delete files and directories permanently** from the system. Unlike GUI deletion, files removed using rm **do not go to Trash** and **cannot be easily recovered**.

Output:



```
(gaurav㉿kali)-[~/Desktop]
$ rm -r file2.txt
(gaurav㉿kali)-[~/Desktop]
$ ls
myfile1.txt
(gaurav㉿kali)-[~/Desktop]
```

A screenshot of a terminal window on a Kali Linux desktop. The terminal shows the user has run the command 'rm -r file2.txt'. After executing the command, the user runs 'ls' to list files in the directory, which only shows 'myfile1.txt'. The terminal window has a dark background and a blue border.

9) whoami:

Description: The whoami command displays the **username of the currently logged-in user**. It is commonly used to check **which user account** (normal user or root) is executing commands.

Output:



```
(gaurav㉿kali)-[~/Desktop]
$ whoami
gaurav
(gaurav㉿kali)-[~/Desktop]
```

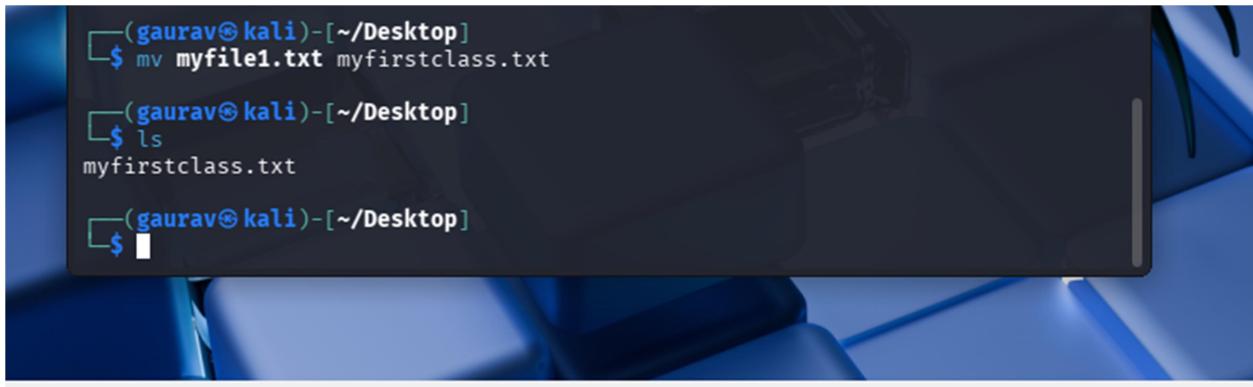
A screenshot of a terminal window on a Kali Linux desktop. The terminal shows the user has run the command 'whoami'. The output is 'gaurav', indicating the current user is 'gaurav'. The terminal window has a dark background and a blue border.

10) mv:

Description: The mv (move) command is used to **move files or directories** from one location to another and to **rename files or**

directories. Unlike cp, it does **not create a copy**—the original is moved.

Output:



```
(gaurav㉿kali)-[~/Desktop]
$ mv myfile1.txt myfirstclass.txt

(gaurav㉿kali)-[~/Desktop]
$ ls
myfirstclass.txt

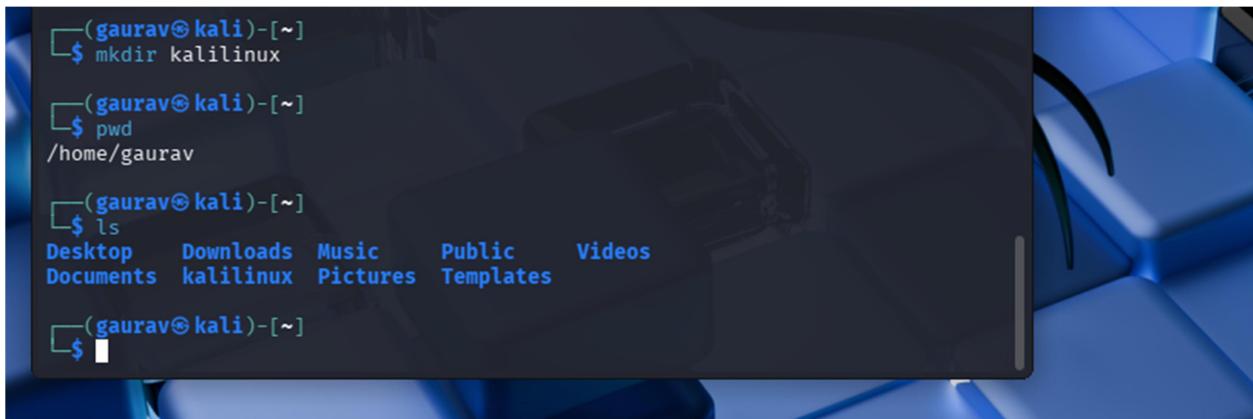
(gaurav㉿kali)-[~/Desktop]
```

A screenshot of a terminal window on a Kali Linux desktop. The window title is 'Terminal'. The terminal shows three commands: moving a file named 'myfile1.txt' to a new directory 'myfirstclass.txt', listing the contents of the directory, and then exiting the terminal.

11) mkdir:

Description: The mkdir (make directory) command is used to **create new directories (folders)** in Kali Linux. It is commonly used to organize files and create project or lab directories.

Output:



```
(gaurav㉿kali)-[~]
$ mkdir kalilinux

(gaurav㉿kali)-[~]
$ pwd
/home/gaurav

(gaurav㉿kali)-[~]
$ ls
Desktop  Downloads  Music  Public  Videos
Documents  kalilinux  Pictures  Templates

(gaurav㉿kali)-[~]
```

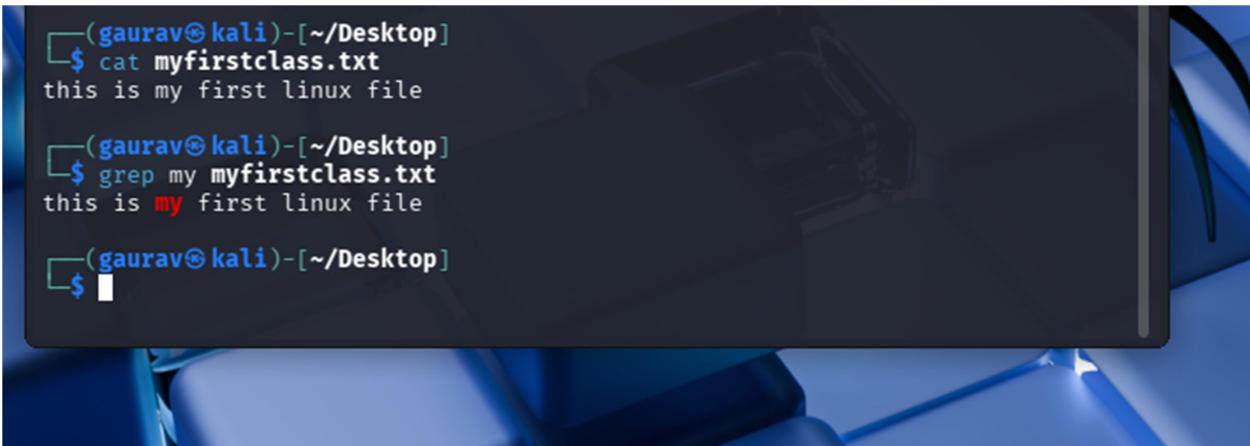
A screenshot of a terminal window on a Kali Linux desktop. The terminal shows creating a new directory 'kalilinux' in the current directory, then listing the contents of the directory which now includes 'kalilinux' along with other standard Kali Linux directories like Desktop, Downloads, etc.

12) grep:

Description: grep (Global Regular Expression Print) is used to **search for text patterns inside files or command output**. It is one of the most powerful and frequently used commands in Kali

Linux, especially for **log analysis, configuration review, and security investigations**.

Output:



```
(gaurav㉿kali)-[~/Desktop]
$ cat myfirstclass.txt
this is my first linux file

(gaurav㉿kali)-[~/Desktop]
$ grep my myfirstclass.txt
this is my first linux file

(gaurav㉿kali)-[~/Desktop]
$
```

13) man ls:

Description: man ls opens the **manual (man page)** for the ls command.

It provides **detailed documentation** about ls, including its **syntax, options, and usage examples**.

Output:

```
Session Actions Edit View Help
LS(1) User Commands LS(1)

NAME
ls - list directory contents

SYNOPSIS
ls [OPTION] ... [FILE] ...

DESCRIPTION
List information about the FILES (the current directory by default).
Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.

Mandatory arguments to long options are mandatory for short options too.

-a, --all
do not ignore entries starting with .

-A, --almost-all
do not list implied . and ..

--author
with -l, print the author of each file

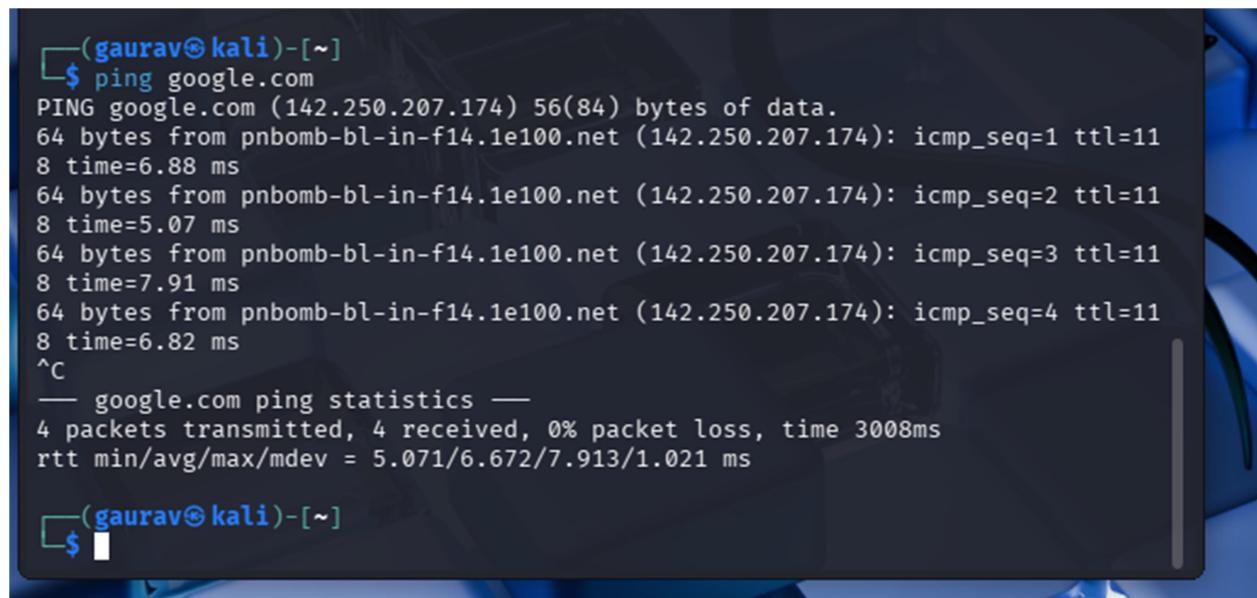
-b, --escape
print C-style escapes for nongraphic characters

--block-size=SIZE
with -l, scale sizes by SIZE when printing them; e.g.,
Manual page ls(1) line 1 (press h for help or q to quit)
```

14) ping:

Description: The ping command is used to **test network connectivity** between your system and a target host. It sends **ICMP Echo Request** packets and waits for **Echo Reply** packets to measure **reachability and latency**.

Ouput:



```
(gaurav㉿kali)-[~]
$ ping google.com
PING google.com (142.250.207.174) 56(84) bytes of data.
64 bytes from pnbomb-bl-in-f14.1e100.net (142.250.207.174): icmp_seq=1 ttl=11
8 time=6.88 ms
64 bytes from pnbomb-bl-in-f14.1e100.net (142.250.207.174): icmp_seq=2 ttl=11
8 time=5.07 ms
64 bytes from pnbomb-bl-in-f14.1e100.net (142.250.207.174): icmp_seq=3 ttl=11
8 time=7.91 ms
64 bytes from pnbomb-bl-in-f14.1e100.net (142.250.207.174): icmp_seq=4 ttl=11
8 time=6.82 ms
^C
--- google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3008ms
rtt min/avg/max/mdev = 5.071/6.672/7.913/1.021 ms

(gaurav㉿kali)-[~]
```

15) ifconfig:

Description: ifconfig (interface configuration) is used to **view and configure network interfaces**.

In Kali Linux, it is mainly used to **display interface information**, while the modern replacement is the ip command.

Output:

```
(gaurav㉿kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.1.206 netmask 255.255.255.0 broadcast 192.168.1.255
        inet6 fe80::a00:27ff:fe11:7bdb prefixlen 64 scopeid 0x20<link>
            ether 08:00:27:11:7b:db txqueuelen 1000 (Ethernet)
            RX packets 13902 bytes 17587332 (16.7 MiB)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 4589 bytes 750928 (733.3 KiB)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0x10<host>
            loop txqueuelen 1000 (Local Loopback)
            RX packets 8 bytes 480 (480.0 B)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 8 bytes 480 (480.0 B)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

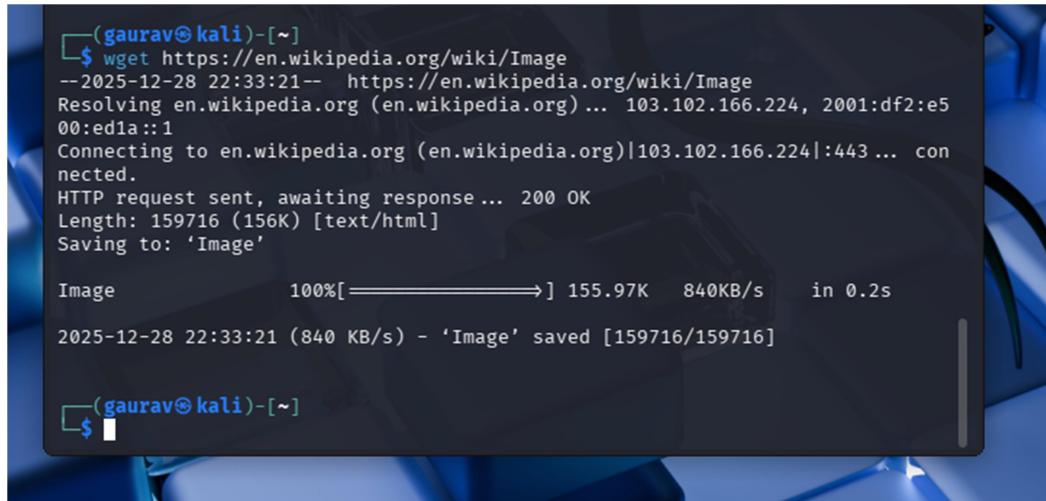
```
(gaurav㉿kali)-[~]
$
```

16) wget:

Description: wget (Web GET) is a **non-interactive command-line tool** used to **download files from the internet** using protocols like **HTTP, HTTPS, and FTP**.

It is widely used in Kali Linux for downloading **tools, wordlists, scripts, and exploits**.

Output:



```
(gaurav㉿kali)-[~]
$ wget https://en.wikipedia.org/wiki/Image
--2025-12-28 22:33:21-- https://en.wikipedia.org/wiki/Image
Resolving en.wikipedia.org (en.wikipedia.org) ... 103.102.166.224, 2001:df2:e5
00:ed1a::1
Connecting to en.wikipedia.org (en.wikipedia.org)|103.102.166.224|:443 ... connected.
HTTP request sent, awaiting response ... 200 OK
Length: 159716 (156K) [text/html]
Saving to: 'Image'

Image          100%[=====] 155.97K   840KB/s    in 0.2s

2025-12-28 22:33:21 (840 KB/s) - 'Image' saved [159716/159716]

(gaurav㉿kali)-[~]
```

17) sudo apt install package:

Description: sudo apt install package

Installs a specified software package on a Debian-based Linux system using administrator privileges.

Output:

```
[gaurav@kali:~]$ sudo apt install sl

The following packages were automatically installed and are no longer required:
d:
curlftpfs          libfuse2t64      libswscale8
libavfilter10       libpocketsphinx3   pocketsphinx-en-us
libavformat61       libpostproc58
libconfig-inifiles-perl libspinxbase3t64
Use 'sudo apt autoremove' to remove them.

Installing:
sl

Summary:
Upgrading: 0, Installing: 1, Removing: 0, Not Upgrading: 6
Download size: 13.2 kB
Space needed: 61.4 kB / 30.7 GB available

Get:1 http://http.kali.org/kali kali-rolling/main amd64 sl amd64 5.02-1+b1 [1
3.2 kB]
Fetched 13.2 kB in 2s (8,233 B/s)
Selecting previously unselected package sl.
(Reading database ... 429180 files and directories currently installed.)
Preparing to unpack .../sl_5.02-1+b1_amd64.deb ...
Unpacking sl (5.02-1+b1) ...
Setting up sl (5.02-1+b1) ...
```

18) sudo apt remove package:

Description: sudo apt remove package

Removes an installed software package from the system while keeping its configuration files.

Output:

```
(gaurav㉿kali)-[~]
$ sudo apt remove sl

The following packages were automatically installed and are no longer required:
  curlftpfs          libfuse2t64      libswscale8
  libavfilter10       libpocketsphinx3  pocketsphinx-en-us
  libavformat61       libpostproc58
  libconfig-inifiles-perl  libsphinxbase3t64
Use 'sudo apt autoremove' to remove them.

REMOVING:
  sl

Summary:
  Upgrading: 0, Installing: 0, Removing: 1, Not Upgrading: 6
  Freed space: 61.4 kB

Continue? [Y/n] ■
```

19) sudo apt update:

Description: sudo apt update

Updates the local package list by fetching the latest information from configured repositories.

Output:

```
(gaurav㉿kali)-[~]
$ sudo apt update
Hit:1 http://http.kali.org/kali kali-rolling InRelease
6 packages can be upgraded. Run 'apt list --upgradable' to see them.

(gaurav㉿kali)-[~]
```

20) sudo apt upgrade:

Description: sudo apt upgrade

Upgrades all installed packages to their latest available versions using the updated package list.

Output:

```
(gaurav㉿kali)-[~]
$ sudo apt upgrade
The following packages were automatically installed and are no longer required:
  curlftpfs          libfuse2t64      libswscale8
  libavfilter10       libpocketsphinx3  pocketsphinx-en-us
  libavformat61       libpostproc58
  libconfig-inifiles-perl  libsphinxbase3t64
Use 'sudo apt autoremove' to remove them.

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

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

(gaurav㉿kali)-[~]
```

21) whoami:

Description: whoami **Displays the username of the currently logged-in user.**

Output:

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

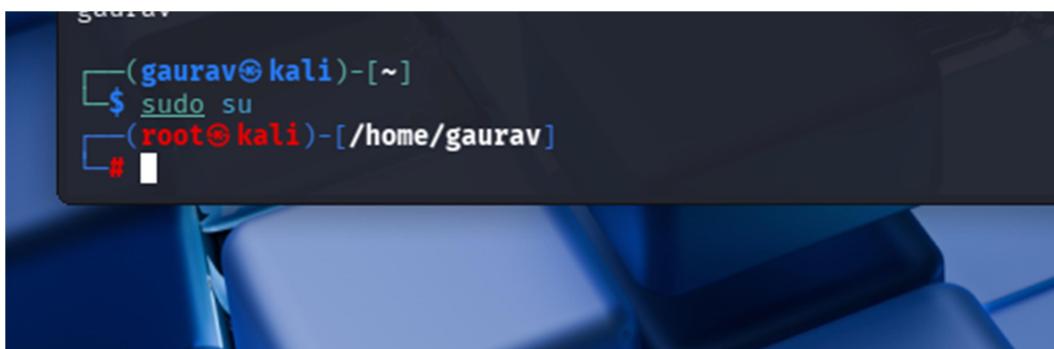
(gaurav㉿kali)-[~]
$ whoami
gaurav

(gaurav㉿kali)-[~]
```

22) sudo su:

Description: sudo su **Switches the current user to the root (superuser) account using sudo privileges.**

Output:



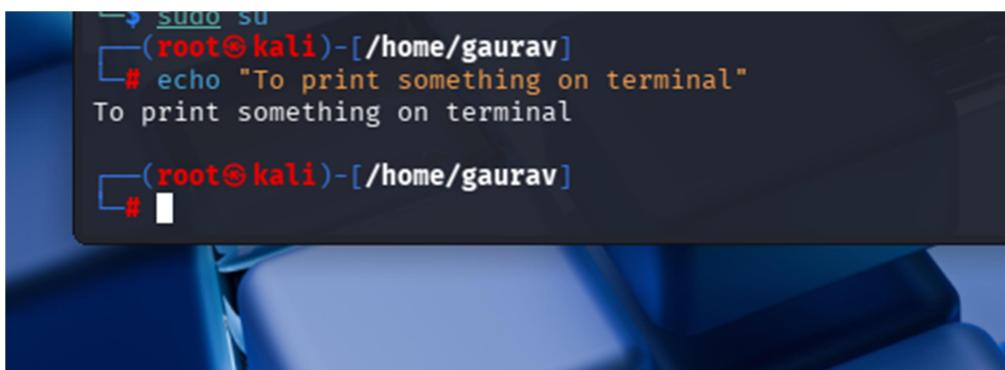
A screenshot of a terminal window titled "gaurav". The terminal shows the command \$ sudo su being run by user gaurav. The output shows the user switching to root, indicated by the prompt changing to #. The background of the terminal window is dark blue with a blurred image of a person's face.

```
gaurav
└─$ sudo su
└─#
```

23) echo:

Description: echo **Displays a line of text or the value of variables to the terminal.**

Output:



A screenshot of a terminal window titled "gaurav". The terminal shows the command # echo "To print something on terminal" being run by root. The output displays the text "To print something on terminal" followed by a new line. The background of the terminal window is dark blue with a blurred image of a person's face.

```
root
└─# echo "To print something on terminal"
To print something on terminal
└─#
```

24) top:

Description: Displays real-time information about system processes, CPU usage, memory usage, and running tasks. Useful for monitoring system performance.

Output:

```
(gaurav㉿kali)-[~]
$ top

top - 23:12:05 up 6 min, 1 user, load average: 0.14, 0.37, 0.21
Tasks: 181 total, 1 running, 180 sleeping, 0 stopped, 0 zombie
%Cpu(s): 1.8 us, 2.1 sy, 0.0 ni, 96.1 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0
MiB Mem : 3920.8 total, 2382.5 free, 883.7 used, 873.0 buff/cache
MiB Swap: 2652.0 total, 2652.0 free, 0.0 used. 3037.1 avail Mem

      PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM TIME+ COMMAND
    696 root      20   0 425204 143916 80828 S  2.3  3.6  0:10.07
    981 gaurav    20   0 215612  3376 2964 S  0.7  0.1  0:01.49
   2582 gaurav    20   0 654900  65744 49360 S  0.7  1.6  0:01.33
      55 root      20   0     0     0     0 I  0.3  0.0  0:00.13
    206 root      20   0     0     0     0 I  0.3  0.0  0:00.93
    646 root      20   0 353140  2960 2692 S  0.3  0.1  0:00.99
   1031 gaurav    20   0 169088  7828 7104 S  0.3  0.2  0:00.15
   1051 gaurav    20   0 561148 136444 94152 S  0.3  3.4  0:02.25
   1109 gaurav    20   0 296792  50112 21672 S  0.3  1.2  0:01.86
  1111 gaurav    20   0 272226  22511 22511 S  0.3  0.7  0:01.41
```

25) htop:

Description:

An enhanced and more user-friendly version of top with color-coded output and easier process management (needs to be installed separately).

Output:

```
          8.6% Tasks: 92, 250 thr, 84 kthr; 1 runni
          2.2% Load average: 0.08 0.24 0.18
Mem[|||||:||||||] 669M/3.83G Uptime: 00:08:57
Swap[0K/2.59G]

Main I/O PID USER PRI NI VIRT RES SHR S CPU%VMEM% TIME+ Command
  696 root 20 0 415M 140M 80828 S 2.1 3.6 0:13.46 /usr/lib/s
  5124 gaurav 20 0 8552 4664 3504 R 2.1 0.1 0:00.17 htop
  646 root 20 0 344M 2960 2692 S 0.7 0.1 0:00.88 /usr/bin/V
  985 gaurav 20 0 210M 3376 0 S 0.7 0.1 0:02.15 /usr/bin/V
  1051 gaurav 20 0 547M 133M 94152 S 0.7 3.4 0:02.96 xfwm4
  2582 gaurav 20 0 639M 66632 49476 S 0.7 1.7 0:01.74 /usr/bin/q
  1 root 20 0 24888 15992 11336 S 0.0 0.0 0:03.51 /sbin/init
  329 root 20 0 50664 17032 15620 S 0.0 0.4 0:00.76 /usr/lib/s
  361 root 20 0 38164 12152 8352 S 0.0 0.3 0:00.83 /usr/lib/s
  364 root 20 0 16364 6612 5600 S 0.0 0.2 0:00.07 /usr/lib/s
  476 root 20 0 8592 6512 1820 S 0.0 0.2 0:00.84 /usr/sbin/
  486 root 20 0 302M 7708 6924 S 0.0 0.2 0:00.25 /usr/libexec
  488 messagebus 20 0 10212 6600 4360 S 0.0 0.2 0:01.44 /usr/bin/d
  494 polkitd 20 0 373M 10260 7680 S 0.0 0.3 0:00.61 /usr/lib/p
  501 root 20 0 18404 9084 7716 S 0.0 0.2 0:00.57 /usr/lib/s
  550 root 20 0 302M 7708 0 S 0.0 0.2 0:00.00 /usr/libexec
```

26) df:

Description:

Shows disk space usage of all mounted file systems, helping you check available and used storage.

Output:

```
(gaurav㉿kali)-[~]
$ df
Filesystem      1K-blocks      Used Available Use% Mounted on
udev              1901200        0   1901200  0% /dev
tmpfs             401492     984   400508  1% /run
/dev/sda1       48614564 16232632 29880044 36% /
tmpfs             2007456        4   2007452  1% /dev/shm
none              1024        0    1024  0% /run/credentials/systemd-
urnald.service
tmpfs             2007456       32   2007424  1% /tmp
kalishare        121733476 119056368 2677108 98% /media/sf_kalishare
none              1024        0    1024  0% /run/credentials/getty@tty
.service
tmpfs             401488      108   401380  1% /run/user/1000
```

27) du:

Description:

Displays disk usage of files and directories. Commonly used to find which folder is consuming the most space.

Output:

```
(gaurav㉿kali)-[~]
$ du
4      ./Documents
4      ./ssh/agent
16     ./ssh
4      ./config/procps
16     ./config/Thunar
8      ./config/nautilus
4      ./config/wireshark/profiles
20     ./config/wireshark
8      ./config/qterminal.org
4      ./config/htop
8      ./config/cherrytree
12     ./config/Mousepad
8      ./config/
```

28) chmod:

Description:

Changes file or directory permissions, controlling who can read, write, or execute a file.

Output:

```
(gaurav㉿kali)-[~]
└─$ chmod 745 users.txt
```

29) chown:

Description:

Changes the ownership of files or directories to a different user or group.

Output:

```
(gaurav㉿kali)-[~]
└─$ chown gaurav users.txt

(gaurav㉿kali)-[~]
└─$ ls -l users.txt
-rwxr--r-x 1 gaurav gaurav 26 Dec 30 00:37 users.txt
```

30) ps:

Description:

Displays information about currently running processes, including their process IDs (PIDs).

Output:

```
(gaurav㉿kali)-[~]
└─$ ps
    PID TTY          TIME CMD
  2648 pts/1    00:00:02 zsh
 11679 pts/1    00:00:00 ps
```

31) kill:

Description:

Terminates a running process using its process ID. Commonly used when an application becomes unresponsive.

Output:

```
(gaurav㉿kali)-[~]
$ kill -9 1212
```

32) uname:

Description:

Displays system information such as kernel name, version, and system architecture.

Output:

```
(gaurav㉿kali)-[~]
$ uname
Linux
```

33) history:

Description:

Shows a list of previously executed commands in the terminal, useful for auditing and command reuse.

Output:

```
(gaurav㉿kali)-[~]
$ history
1 mv ~/.zsh_history ~/.zsh_history.bad\n2 strings ~/.zsh_history.bad > ~/.zsh_history\n3 mv ~/.zsh_history ~/.zsh_history.bad\n4 top
5 htop
6 df
```

34) clear:

Description:

Clears all previous output from the terminal screen, providing a clean workspace.

Output:

```
[gaurav㉿kali)-[~]
$ clear
```

35) tar:

Description:

Used to create, extract, and manage compressed archive files such as .tar and .tar.gz.

Output:

```
[gaurav㉿kali)-[~]
$ tar cvf file.tar *.txt
password.txt
touch.txt
users.txt
```

36) zip:

Description: Compresses files and directions into a ZIP archive, commonly used for file transfer and backups.

Output:

```
[gaurav㉿kali)-[~]
$ sudo zip -d myfile.zip hello7.0
```

37) unzip:

Description: Extracts files from ZIP archives.

Output:

```
[gaurav㉿kali)-[~]
$ unzip file.zip
```

38) ip addr:

Description: Displays IP address and network interface details. It is the modern replacement for ifconfig.

Output:

```
(gaurav㉿kali)-[~]
$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
        inet 127.0.0.1/8 scope host lo
            valid_lft forever preferred_lft forever
            inet6 ::1/128 scope host noprefixroute
                valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state BROADCAST group default qlen 1000
    link/ether 08:00:27:11:7b:db brd ff:ff:ff:ff:ff:ff
        inet 192.168.1.206/24 brd 192.168.1.255 scope global dynamic noprefixroute eth0
            valid_lft 83559sec preferred_lft 83559sec
            inet6 fe80::a00:27ff:fe11:7bdb/64 scope link noprefixroute
                valid_lft forever preferred_lft forever
```