KALI LINUX COMMANDS

TASK 1

Created By:

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1) pwd

Description: Displays the current working directory.

```
┌──(sanika㉿kali)-[~]
└─$ pwd
/home/sanika
```

2) ls

Description: Lists all files and folders in the current directory.'

```
┌──(sanika㉿kali)-[~]
└─$ ls
Desktop      Downloads   Pictures   tasks      Videos
Documents    Music       Public     Templates
```

3) cd

Description: Used to change the current directory.

```
┌──(sanika㉿kali)-[~]
└─$ cd task

┌──(sanika㉿kali)-[~/task]
```

4) cd ..

Description: Moves one directory back.

```
┌──(sanika㉿kali)-[~/task]
└─$ cd ..

┌──(sanika㉿kali)-[~]
└─$ 
```

5) mkdir foldername

Description: Creates a new directory.

```
┌──(sanika㉿kali)-[~]
└─$ mkdir task

┌──(sanika㉿kali)-[~]
└─$ ls
Desktop      Downloads   Pictures   task    Templates
Documents    Music       Public     tasks   Videos
```

6) **rmdir foldername**

Description: Deletes an empty directory.

7) **touch file.txt**

Description: Creates an empty file

8) vi file.txt

Description : Creates or edit text file

9) cat file.txt

Description: Displays the content of a file.

```
┌──(sanika㉿kali)-[~]
└─$ cat file.txt
```

10) head file.txt

Description: Shows first 10 lines of a file.

```
┌──(sanika㉿kali)-[~]
└─$ head file.txt

┌──(sanika㉿kali)-[~]
└─$ ls
Desktop  Documents  Downloads  file.txt  Music  new.txt  old.txt  Pictures  Public  Templates  Videos

┌──(sanika㉿kali)-[~]
└─$
```

11) ip a

Description: Displays IP address and network interfaces.

```
┌──(sanika㉿kali)-[~]
└─$ ip a
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 UP group default qlen 1000
    link/ether 08:00:27:63:b0:05 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute eth0
       valid_lft 75330sec preferred_lft 75330sec
    inet6 fd17:625c:f037:2:1099:e147:85d9:a1a8/64 scope global dynamic noprefixroute
       valid_lft 86132sec preferred_lft 14132sec
    inet6 fe80::8d8c:8401:65fc:1da4/64 scope link noprefixroute
       valid_lft forever preferred_lft forever
```

12) ifconfig

Description: Shows network interface configuration.

```
┌──(sanika㉿kali)-[~]
└─$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.2.15  netmask 255.255.255.0  broadcast 10.0.2.255
        inet6 fe80::8d8c:8401:65fc:1da4  prefixlen 64  scopeid 0x20<link>
        inet6 fd17:625c:f037:2:1099:e147:85d9:a1a8  prefixlen 64  scopeid 0x0<global>
        ether 08:00:27:63:b0:05  txqueuelen 1000  (Ethernet)
        RX packets 41  bytes 6636 (6.4 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 100  bytes 12019 (11.7 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 24  bytes 1440 (1.4 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 24  bytes 1440 (1.4 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

13) ping

Description: Tests internet connectivity.

```
┌──(sanika㉿kali)-[~]
└─$ ping google.com
PING google.com (142.250.67.174) 56(84) bytes of data.
64 bytes from bom12s07-in-f14.1e100.net (142.250.67.174): icmp_seq=1 ttl=255 time=3.07 ms
64 bytes from bom12s07-in-f14.1e100.net (142.250.67.174): icmp_seq=2 ttl=255 time=10.5 ms
64 bytes from bom12s07-in-f14.1e100.net (142.250.67.174): icmp_seq=3 ttl=255 time=7.95 ms
64 bytes from bom12s07-in-f14.1e100.net (142.250.67.174): icmp_seq=4 ttl=255 time=3.45 ms
64 bytes from bom12s07-in-f14.1e100.net (142.250.67.174): icmp_seq=5 ttl=255 time=6.61 ms
64 bytes from bom12s07-in-f14.1e100.net (142.250.67.174): icmp_seq=6 ttl=255 time=8.09 ms
64 bytes from bom12s07-in-f14.1e100.net (142.250.67.174): icmp_seq=7 ttl=255 time=8.85 ms
64 bytes from bom12s07-in-f14.1e100.net (142.250.67.174): icmp_seq=8 ttl=255 time=7.50 ms
64 bytes from bom12s07-in-f14.1e100.net (142.250.67.174): icmp_seq=9 ttl=255 time=6.39 ms
```

14) netstat -tuln

Description: Displays open ports and listening services.

```
┌──(sanika㉿kali)-[~]
└─$ netstat -tuln
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address          Foreign Address         State
```

15) route

Description: Displays routing table.

```
┌──(sanika㉿kali)-[~]
└─$ route
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
default         10.0.2.2        0.0.0.0         UG    100    0        0 eth0
10.0.2.0        0.0.0.0         255.255.255.0   U     100    0        0 eth0
```

16) id

Description: show user id

```
┌──(sanika㉿kali)-[~]
└─$ id
uid=1001(sanika) gid=1001(sanika) groups=1001(sanika),100(users)
```

17) mv

Description: Move files from one location to another.

```
┌──(sanika㉿kali)-[~]
└─$ cd ..

┌──(sanika㉿kali)-[/home]
└─$ ls
kali  sanika

┌──(sanika㉿kali)-[/home]
└─$ mv sanika kali
```

18) groups

Description: The groups command shows which groups a user belongs to.

```
┌──(sanika㉿kali)-[~]
└─$ groups
sanika users
```

19) free -m

Description: free -m shows **system memory (RAM) usage** in **megabytes (MB)**

```
┌──(sanika㉿kali)-[~]
└─$ free -m
              total        used        free      shared  buff/cache   available
Mem:           1971         866         653          12         606        1104
Swap:           953           0         953
```

20) echo

Description: Display text on the terminal

```
┌──(sanika㉿kali)-[/home]
└─$ ls
kali  sanika

┌──(sanika㉿kali)-[/home]
└─$ echo "hello friends">>hello.txt
```

21) date

Description: Displays the current system date and time.

```
┌──(sanika㉿kali)-[~]
└─$ date
Wed Dec 31 06:39:40 AM EST 2025
```

22) history

Description: Shows the list of previously executed commands in the terminal.

```
┌──(sanika㉿kali)-[~]
└─$ history
    1  pwd
    2  ls
    3  cd
    4  cd ..
    5  cd home
    6  sudo su
    7  pwd
    8  ls
    9  cd home
   10  cdls
   11  ls
   12  cd
   13  cd ..
   14  mkdir tasks
   15  ls
   16  pwd
```

23) who

Description : Shows which users are currently logged in to the system.

```
┌──(sanika㉿kali)-[~]
└─$ who
sanika   seat0        2025-12-31 06:16 (:0)
```

24) tty
Description : Shows the terminal session you are using.

```
┌──(sanika㊀kali)-[~]
└─$ tty
/dev/pts/0
```

25) sort

Description :Sorts output alphabetically, numerically, or by specific fields.

```
sort: cannot read: animals.txt: No such file or directory
┌──(sanika㊀kali)-[~]
└─$ sort
dog
cat
bear
donkey
fox
```

26) rev
Description: Reverses characters in each line (useful for pattern testing).

```
┌──(sanika㊀kali)-[~]
└─$ rev new.txt
┌──(sanika㊀kali)-[~]
```

27) tree
Description : Shows directory structure in a tree format.

```
┌──(sanika㊀kali)-[~]
└─$ tree
.
├── Desktop
├── Documents
├── Downloads
├── file.txt
├── Music
├── new.txt
├── Pictures
│   └── Screenshot_2025-12-31_06_23_28.png
├── Public
├── Templates
└── Videos

9 directories, 3 files
```

28) arch
Description: Shows system architecture (e.g., x86_64)

```
┌──(sanika㉿kali)-[~]
└─$ arch
x86_64
```

29) env

Description: Displays environment variables.

```
┌──(sanika㉿kali)-[~]
└─$ env
SHELL=/bin/bash
SESSION_MANAGER=local/kali:@/tmp/.ICE-unix/86727,unix/kali:/tmp/.ICE-unix/86727
WINDOWID=0
QT_ACCESSIBILITY=1
COLORTERM=truecolor
XDG_CONFIG_DIRS=/etc/xdg
XDG_SESSION_PATH=/org/freedesktop/DisplayManager/Session2
XDG_MENU_PREFIX=xfce-
POWERSHELL_UPDATECHECK=Off
LANGUAGE=
LESS_TERMCAP_se=
LESS_TERMCAP_so=
POWERSHELL_TELEMETRY_OPTOUT=1
SSH_AUTH_SOCK=/home/sanika/.ssh/agent/s.RDJpj98jBr.agent.nYWzd1d0uW
DOTNET_CLI_TELEMETRY_OPTOUT=1
XDG_CONFIG_HOME=/home/sanika/.config
NMAP_PRIVILEGED=
DESKTOP_SESSION=lightdm-xsession
SSH_AGENT_PID=86859
XDG_SEAT=seat0
PWD=/home/sanika
```

30) last

Description: Shows login history.

```
┌──(sanika㉿kali)-[~]
└─$ last
sanika    tty7      :0          Wed Dec 31 06:16 - still logged in
lightdm   tty7      :0          Wed Dec 31 06:15 - 06:16  (00:00)
sanika    tty7      :0          Wed Dec 31 05:03 - 06:15  (01:12)
lightdm   tty7      :0          Wed Dec 31 05:02 - 05:03  (00:00)
root      pts/1                 Wed Dec 31 04:59 - 05:02  (00:03)
root      pts/1                 Wed Dec 31 01:20 - 02:36  (01:16)
kali      tty7      :0          Wed Dec 31 01:17 - 05:02  (03:45)
lightdm   tty7      :0          Wed Dec 31 01:17 - 01:17  (00:00)
root      pts/1                 Tue Dec 30 13:45 - 13:49  (00:03)
kali      tty7      :0          Tue Dec 30 13:44 - still logged in
lightdm   tty7      :0          Tue Dec 30 13:44 - 13:44  (00:00)
root      pts/1                 Tue Dec 30 13:28 - 13:31  (00:02)
kali      tty7      :0          Tue Dec 30 13:21 - 13:31  (00:10)
lightdm   tty7      :0          Tue Dec 30 13:20 - 13:21  (00:00)
kali      tty7      :0          Tue Dec 30 09:37 - 10:53  (01:16)
lightdm   tty7      :0          Tue Dec 30 09:36 - 09:37  (00:01)
lightdm   tty8      :1          Tue Dec 30 09:15 - still logged in
root      pts/1                 Tue Dec 30 09:05 - 09:05  (00:00)
```

31) clear

Description : Clears the terminal screen

```
┌──(sanika㉿kali)-[~]
└─$ clear█
```

```
┌──(sanika㉿kali)-[~]
└─$ █
```

32) tail file.txt

Description: Shows last 10 lines of a file.

```
boot  etc  initrd.img  lib          lib64  media      opt  root  sbin  swap  tmp  var  vmlinuz.old
┌──(sanika㉿kali)-[/]
└─$ tail file.txt
```

33) wc file.txt

Description: Counts lines, words, and characters in a file.

```
┌──(sanika㉿kali)-[~]
└─$ wc new.txt
0 0 0 new.txt
```

34) cp file1 file2

Description: Copies one file to another.

```
┌──(sanika㉿kali)-[~]
└─$ cp new.txt old.txt
┌──(sanika㉿kali)-[~]
└─$ cat old.txt
┌──(sanika㉿kali)-[~]
└─$ ls
Desktop  Documents  Downloads  file.txt  Music  new.txt  old.txt  Pictures  Public  Templates  Videos
```

35)rmdir foldername

Description: Deletes an empty directory.

```
└─$ ls
Desktop  Documents  Downloads  file.txt  Music  new.txt  Pictures  Public  task  Templates  Videos
┌──(sanika㉿kali)-[~]
└─$ rmdir task
┌──(sanika㉿kali)-[~]
└─$ ls
Desktop  Documents  Downloads  file.txt  Music  new.txt  Pictures  Public  Templates  Videos
```

36) rm filename

Description: Removes a file.

```
┌──(sanika㉿kali)-[~]
└─$ rm old.txt
rm: cannot remove 'old.txt': No such file or directory
┌──(sanika㉿kali)-[~]
└─$ rm old.txt
rm: cannot remove 'old.txt': No such file or directory
┌──(sanika㉿kali)-[~]
└─$ cp new.txt old.txt
┌──(sanika㉿kali)-[~]
└─$ cat old.txt
┌──(sanika㉿kali)-[~]
└─$ ls
Desktop  Documents  Downloads  file.txt  Music  new.txt  old.txt  Pictures  Public  Templates  Videos
```

37) whoami

Description: Displays the current logged-in user.

```
┌──(sanika㉿kali)-[~]
└─$ whoami
sanika
```

38) hostname

Description: Displays system hostname.

```
┌──(sanika㉿kali)-[~]
└─$ hostname
kali
```

39) uname -a

Description: Shows system and kernel information.

```
kali
┌──(sanika㉿kali)-[~]
└─$ uname -a
Linux kali 6.16.8+kali-amd64 #1 SMP PREEMPT_DYNAMIC Kali 6.16.8-1kali1 (2025-09-24) x86_64 GNU/Linux
┌──(sanika㉿kali)-[~]
```

40) df -h

Description: Displays disk space usage.

```
┌──(sanika㉿kali)-[/home]
└─$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            883M     0  883M   0% /dev
tmpfs           198M  1.1M  197M   1% /run
/dev/sda1        79G   16G   60G  21% /
tmpfs           986M  4.0K  986M   1% /dev/shm
none            1.0M     0  1.0M   0% /run/credentials/systemd-journald.service
tmpfs           986M   52K  986M   1% /tmp
none            1.0M     0  1.0M   0% /run/credentials/getty@tty1.service
tmpfs           198M  100K  198M   1% /run/user/1000
tmpfs           198M  112K  197M   1% /run/user/1001
```