

Date: 15 /12 / 2024

Lab Practical #01:

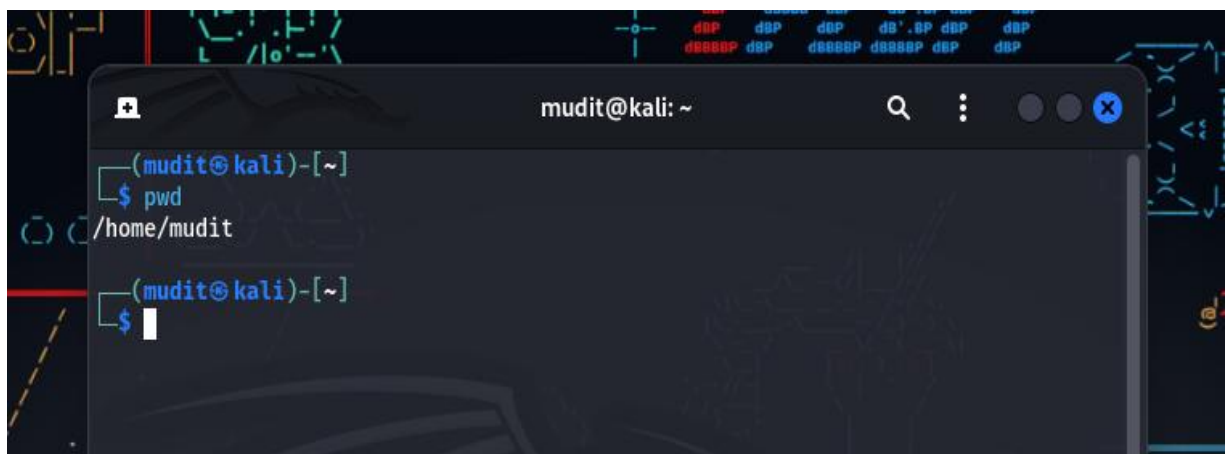
Perform various Linux commands and configure kali Linux with Virtual Machine.

Practical Assignment #01:

1.Perform various Linux commands

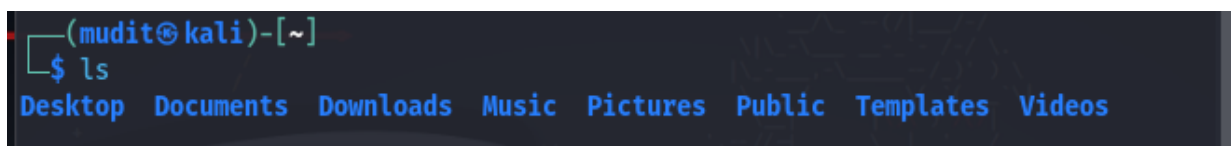
1. File and Directory Management:

- pwd – Show the current working directory.




```
mudit@kali: ~  
(mudit@kali)-[~]  
$ pwd  
/home/mudit  
(mudit@kali)-[~]  
$
```

- ls – List files and directories.



```
(mudit@kali)-[~]  
$ ls  
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos
```

- cd – Change directories.



```
(mudit@kali)-[~]  
$ cd Downloads  
(mudit@kali)-[~/Downloads]  
$
```

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- mkdir – Create a new directory.

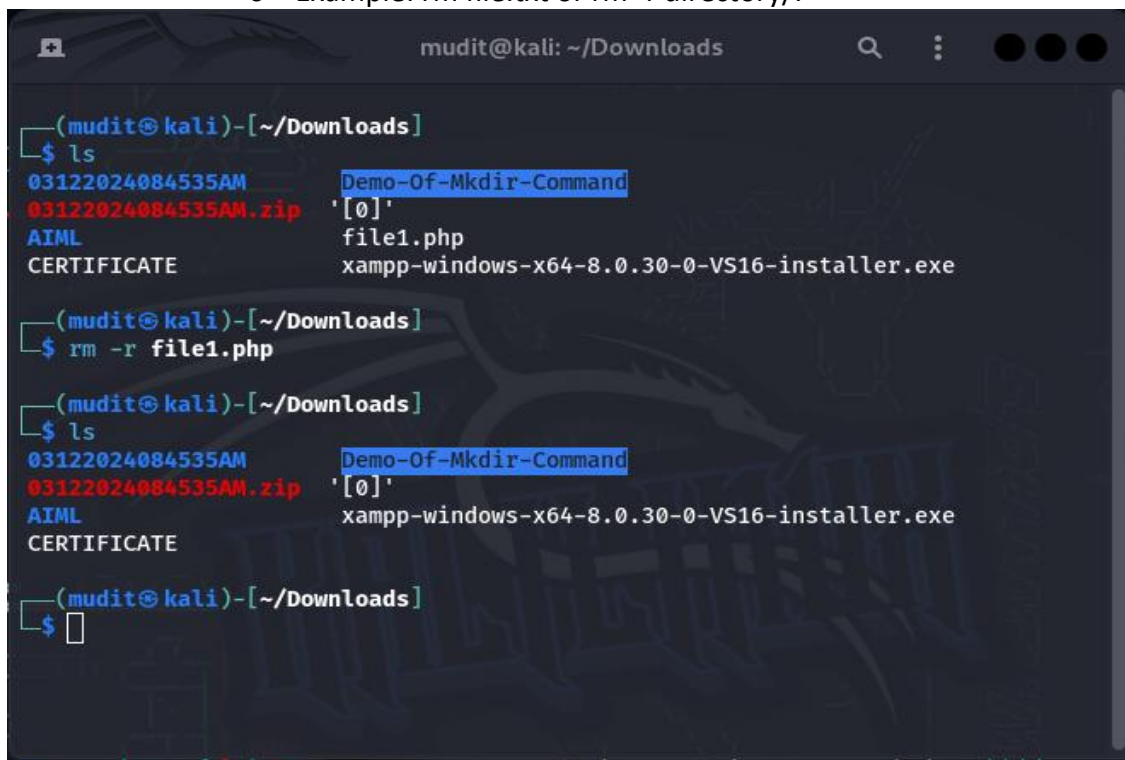


```
mudit@kali: ~/Downloads

(mudit@kali)-[~/Downloads]
$ mkdir Demo-Of-Mkdir-Command

(mudit@kali)-[~/Downloads]
$ ls
03122024084535AM      Demo-Of-Mkdir-Command
03122024084535AM.zip '[0]'
AIML                  xampp-windows-x64-8.0.30-0-VS16-installer.exe
CERTIFICATE
```

- rm – Remove files or directories.
 - Example: rm file.txt or rm -r directory/.



```
mudit@kali: ~/Downloads

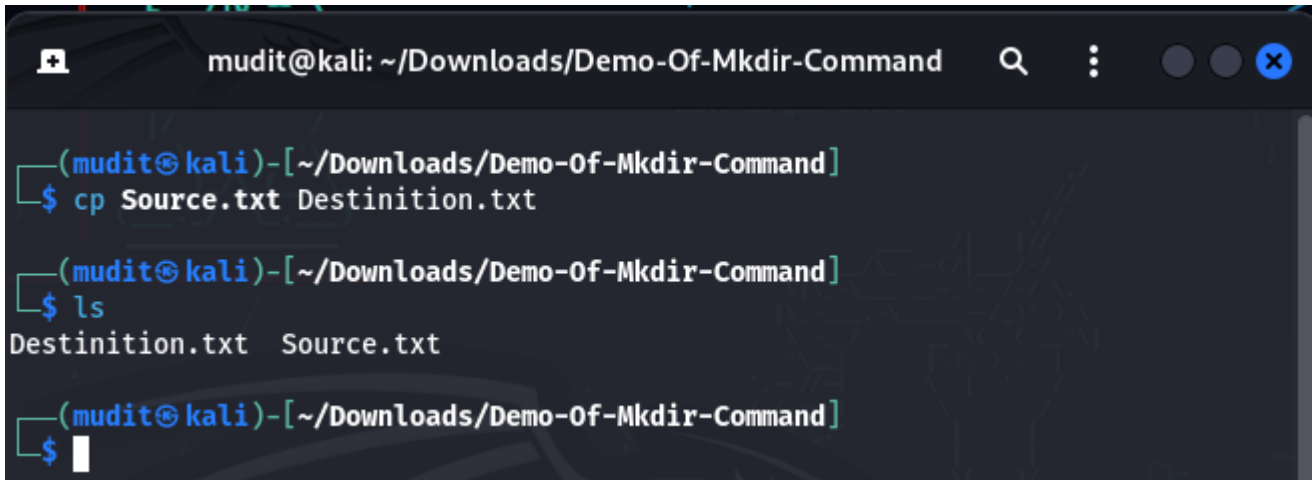
(mudit@kali)-[~/Downloads]
$ ls
03122024084535AM      Demo-Of-Mkdir-Command
03122024084535AM.zip '[0]'
AIML                  file1.php
CERTIFICATE           xampp-windows-x64-8.0.30-0-VS16-installer.exe

(mudit@kali)-[~/Downloads]
$ rm -r file1.php

(mudit@kali)-[~/Downloads]
$ ls
03122024084535AM      Demo-Of-Mkdir-Command
03122024084535AM.zip '[0]'
AIML                  xampp-windows-x64-8.0.30-0-VS16-installer.exe
CERTIFICATE
```

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- cp – Copy files or directories.



```
mudit@kali: ~/Downloads/Demo-Of-Mkdir-Command

(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ cp Source.txt Destination.txt

(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ ls
Destination.txt  Source.txt

(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$
```

- mv – Move or rename files.

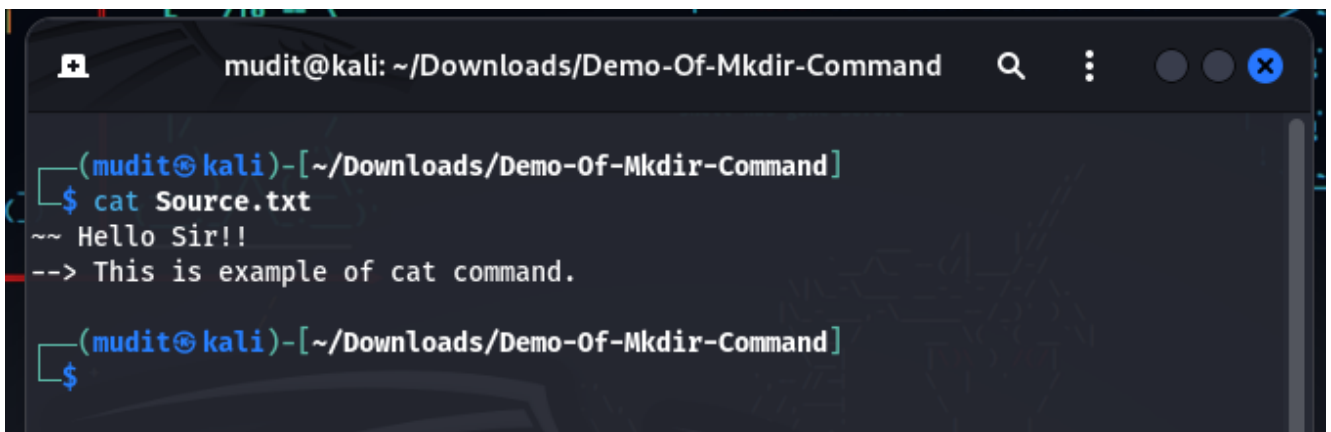


```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ mv Destination.txt mvcmd

(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ ls
Source.txt  mvcmd
```

2.File Viewing and Editing:

- cat – View file contents.



```
mudit@kali: ~/Downloads/Demo-Of-Mkdir-Command

(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ cat Source.txt
~~ Hello Sir!!
--> This is example of cat command.

(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$
```

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- less – View file contents one screen at a time.


```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]  
$ less Source.txt
```

```
~~ Hello Sir!!  
--> This is example of cat command.  
Source.txt (END)
```

- nano – Simple text editor.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]  
$ nano
```

```
GNU nano 8.2                               New Buffer *  
Darshan University
```



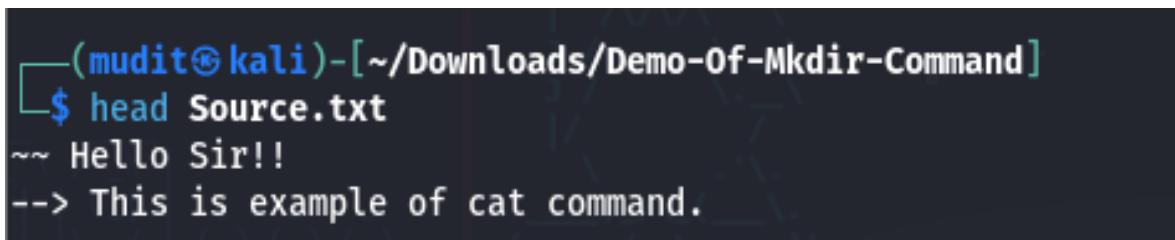
```
^G Help      ^O Write Out  ^F Where Is   ^K Cut        ^T Execute    ^C Location   ^M Undo  
^X Exit      ^R Read File  ^N Replace    ^U Paste      ^J Justify    ^_ Go To Line  ^E Redo
```

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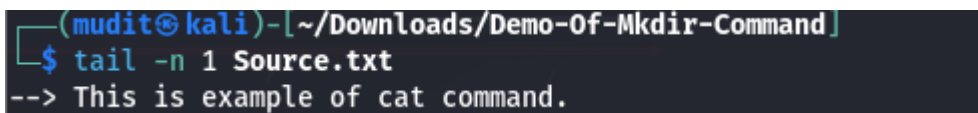
- vi or vim – Advanced text editor.



- head – Show the first few lines of a file.

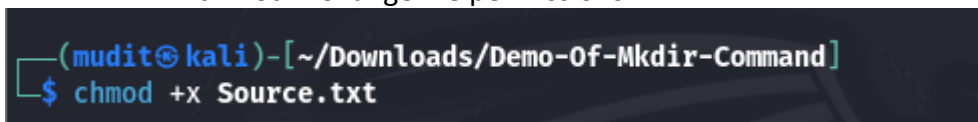


- tail – Show the last few lines of a file (use tail -f for live updates).

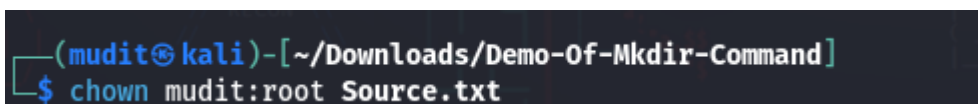


3.File Permissions and **Ownership**:

- chmod – Change file permissions.



- chown – Change file ownership.





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- ls -l – View permissions and ownership.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ ls -l
total 4
-rwxrwxr-x 1 mudit mudit 51 Dec 15 10:23 Source.txt
-rw-rw-r-- 1 mudit mudit  0 Dec 15 10:19 mvcmd
```

System Information.

- uname -a – Show system information.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ uname -a
Linux kali 6.11.2-amd64 #1 SMP PREEMPT_DYNAMIC Kali 6.11.2-1kali1 (2024-10-15) x86_64 GNU/Linux
```

- hostname – Display or set the system hostname.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ hostname
kali
```

- df -h – Show disk usage in human-readable format.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            4.7G   0    4.7G   0% /dev
tmpfs           972M  1.3M  971M   1% /run
/dev/sda1       49G   16G   31G  35% /
tmpfs           4.8G  4.0K  4.8G   1% /dev/shm
tmpfs           5.0M   0    5.0M   0% /run/lock
tmpfs           1.0M   0    1.0M   0% /run/credentials/systemd-journald.service
tmpfs           4.8G  36K  4.8G   1% /tmp
tmpfs           972M  140K  972M   1% /run/user/1000
```

- du -sh – Show size of a directory.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ du -sh
20K .
```


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- free -h – Display memory usage.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ free -h
```

	total	used	free	shared	buff/cache	available
Mem:	9.5Gi	1.6Gi	5.9Gi	20Mi	2.3Gi	7.9Gi
Swap:	975Mi	0B	975Mi			

- top or htop – Monitor system processes in real-time.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ top
```

top - 11:19:40 up 2:56, 2 users, load average: 0.01, 0.04, 0.12
Tasks: 217 total, 1 running, 211 sleeping, 5 stopped, 0 zombie
%Cpu(s): 1.8 us, 0.9 sy, 0.0 ni, 97.0 id, 0.1 wa, 0.0 hi, 0.1 si, 0.0 st
MiB Mem : 9714.0 total, 6044.9 free, 1588.7 used, 2404.3 buff/cache
MiB Swap: 976.0 total, 976.0 free, 0.0 used. 8125.4 avail Mem

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1497	mudit	20	0	4668160	663904	158468	S	5.6	6.7	14:52.13	gnome-shell
1259	mudit	20	0	409236	119712	67640	S	4.0	1.2	28:45.94	Xorg
1354	mudit	20	0	216276	2964	2708	S	0.7	0.0	0:55.76	VBoxClient
12435	mudit	20	0	703796	53312	41432	S	0.7	0.5	0:10.15	gnome-terminal-
14070	mudit	20	0	10844	5644	3468	R	0.7	0.1	0:00.06	top
1346	mudit	20	0	215760	3248	2864	S	0.3	0.0	0:09.17	VBoxClient
1	root	20	0	23332	13972	10292	S	0.0	0.1	0:03.42	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.04	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.00	pool_workqueue_release
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-rcu_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-sync_wq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-slub_flushwq
7	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-netns

- whoami – Show the current logged-in user.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ whoami
mudit
```

Date: 15 /12 / 2024**Networking Commands**

- ifconfig / ip addr – Display network interfaces.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.0.105 netmask 255.255.255.0 broadcast 192.168.0.255
    inet6 fe80::a00:27ff:feb7:83d7 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:b7:83:d7 txqueuelen 1000 (Ethernet)
    RX packets 512735 bytes 617943062 (589.3 MiB)
    RX errors 0 dropped 21370 overruns 0 frame 0
    TX packets 221703 bytes 24052883 (22.9 MiB)
    TX errors 0 dropped 39 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 247 bytes 19065 (18.6 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 247 bytes 19065 (18.6 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

- ping – Test network connectivity.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ ping www.darshan.ac.in
PING darshan.ac.in (103.13.112.180) 56(84) bytes of data:
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=1 ttl=118 time=24.5 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=2 ttl=118 time=124 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=3 ttl=118 time=49.3 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=4 ttl=118 time=73.7 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=5 ttl=118 time=25.3 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=6 ttl=118 time=114 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=7 ttl=118 time=34.8 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=8 ttl=118 time=55.6 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=9 ttl=118 time=24.1 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=10 ttl=118 time=99.5 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=11 ttl=118 time=25.2 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=12 ttl=118 time=42.9 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=13 ttl=118 time=25.0 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=14 ttl=118 time=94.1 ms
64 bytes from darshan.interactivedns.com (103.13.112.180): icmp_seq=15 ttl=118 time=25.1 ms
```


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- netstat – Show network connections.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
udp        0      0 kali:bootpc            _gateway:bootps        ESTABLISHED

Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags   Type       State         I-Node  Path
unix  3      [ ]     STREAM    CONNECTED    13833    /run/user/1000/bus
unix  3      [ ]     STREAM    CONNECTED    56556    /tmp/dbus-pQzLf8bcjp
unix  3      [ ]     STREAM    CONNECTED    7496
unix  3      [ ]     STREAM    CONNECTED    13444    /run/user/1000/bus
unix  3      [ ]     STREAM    CONNECTED    84336
unix  3      [ ]     STREAM    CONNECTED    69454    @/tmp/.X11-unix/X1
unix  3      [ ]     STREAM    CONNECTED    10115    /run/systemd/journal/stdout
unix  3      [ ]     STREAM    CONNECTED    56513
unix  3      [ ]     DGRAM     CONNECTED    4749
unix  3      [ ]     STREAM    CONNECTED    11830    /run/user/1000/pulse/native
unix  3      [ ]     DGRAM     CONNECTED    5887
unix  2      [ ]     DGRAM     CONNECTED    7487
unix  3      [ ]     STREAM    CONNECTED    10133    /run/systemd/journal/stdout
unix  3      [ ]     STREAM    CONNECTED    13813
unix  3      [ ]     STREAM    CONNECTED    12549    /home/mudit/.cache/ibus/dbus-mTRs12it
unix  3      [ ]     STREAM    CONNECTED    11738
```

- nmap – Network scanning (pre-installed in Kali Linux).

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ nmap -sS darshan.ac.in
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-12-15 11:56 IST
Nmap scan report for darshan.ac.in (103.13.112.180)
Host is up (0.037s latency).
rDNS record for 103.13.112.180: darshan.interactivedns.com
Not shown: 986 filtered tcp ports (no-response)
PORT      STATE SERVICE
21/tcp    open  ftp
53/tcp    open  domain
80/tcp    open  http
110/tcp   open  pop3
135/tcp   open  msrpc
143/tcp   open  imap
443/tcp   open  https
465/tcp   open  smtps
993/tcp   open  imaps
995/tcp   open  pop3s
1433/tcp  open  ms-sql-s
3306/tcp  open  mysql
3389/tcp  open  ms-wbt-server
8443/tcp  open  https-alt

Nmap done: 1 IP address (1 host up) scanned in 5.08 seconds
```

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- wget – Download files from the internet.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
└─$ wget https://github.com/themudit-18/B.TECH-SEM-5-CN/blob/main/LAB1.docx
--2024-12-15 12:01:29-- https://github.com/themudit-18/B.TECH-SEM-5-CN/blob/main/LAB1.docx
Resolving github.com (github.com)... 20.207.73.82
Connecting to github.com (github.com)|20.207.73.82|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'LAB1.docx'

LAB1.docx                                     [  <=>                                     ] 219.73K  601KB/s  in 0.4s

2024-12-15 12:01:30 (601 KB/s) - 'LAB1.docx' saved [225001]
```

- curl – Transfer data from URLs.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
└─$ curl -O https://github.com/themudit-18/B.TECH-SEM-5-CN/blob/main/LAB1.docx
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload   Total   Spent    Left   Speed
100  219k    0  219k    0     0   281k      0 --:--:-- --:--:-- --:--:--  281k
```

Package Management

- apt update – Update package lists.

```
(mudit@kali)-[~/Downloads]
└─$ sudo apt update
Get:1 http://kali.download/kali kali-rolling InRelease [41.5 kB]
Get:2 http://kali.download/kali kali-rolling/main amd64 Packages [20.3 MB]
Get:3 http://kali.download/kali kali-rolling/main amd64 Contents (deb) [48.8 MB]
Get:4 http://kali.download/kali kali-rolling/contrib amd64 Packages [110 kB]
Get:5 http://kali.download/kali kali-rolling/contrib amd64 Contents (deb) [262 kB]
Get:6 http://kali.download/kali kali-rolling/non-free amd64 Packages [196 kB]
Get:7 http://kali.download/kali kali-rolling/non-free amd64 Contents (deb) [876 kB]
Get:8 http://kali.download/kali kali-rolling/non-free-firmware amd64 Packages [10.6 kB]
Get:9 http://kali.download/kali kali-rolling/non-free-firmware amd64 Contents (deb) [23.2 kB]
Fetched 70.6 MB in 40s (1749 kB/s)
505 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

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- apt remove – Uninstall a package.

```
(mudit@kali)-[~/Downloads]
$ sudo apt-get remove apt
[sudo] password for mudit:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  chrome-gnome-shell distro-info-data fonts-liberation2 freerdp2-x11 ibverbs-providers libapt-pkg-perl libassuan0
  libavfilter9 libboost-iostreams1.83.0 libboost-thread1.83.0 libcephfs2 libdbus-glib-1-2 libfreerdp-client2-2t64
  libfreerdp2-2t64 libgeos3.12.2 libgfs2 libgfrpc0 libgfxdr0 libglusterfs0 libgspell-1-2 libibverbs1
  libimobiledevice6 libiniparser1 libjim0.82t64 libjsoncpp25 libmbcbedcrypto7t64 libmfx1 libmozjs-115-0t64
  libperl5.38t64 libplacebo338 libplist3 libpostproc57 librados2 librdmacm1t64 libregexp-assembly-perl libusbmuxd6
  libwinpr2-2t64 libzip4t64 openjdk-17-jre openjdk-17-jre-headless perl-modules-5.38 python-apt-common python3-apt
  python3-hatch-vcs python3-hatchling python3-pathspec python3-pluggy python3-setuptools-scm
  python3-trove-classifiers rwho rwhod
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
  apt apt-file apt-utils command-not-found kali-linux-core kali-linux-default kali-linux-headless kali-system-cli
  kali-system-core kali-system-gui taskel taskel-data
WARNING: The following essential packages will be removed.
This should NOT be done unless you know exactly what you are doing!
  apt
0 upgraded, 0 newly installed, 12 to remove and 184 not upgraded.
After this operation, 6943 kB disk space will be freed.
E: Removing essential system-critical packages is not permitted. This might break the system.
```

- apt install – Install a package.

```
(mudit@kali)-[~/Downloads]
$ sudo apt install apksigner
The following packages were automatically installed and are no longer required:
  chrome-gnome-shell libfreerdp2-2t64 libjsoncpp25 libwinpr2-2t64
  fonts-liberation2 libgeos3.12.2 libmbcbedcrypto7t64 libzip4t64
  freerdp2-x11 libgfs2 libmfx1 libmozjs-115-0t64 perl-modules-5.38
  ibverbs-providers libgfrpc0 libmfx1 libmozjs-115-0t64 python3-hatch-vcs
  libassuan0 libgfxdr0 libperl5.38t64 python3-hatchling
  libavfilter9 libglusterfs0 libplacebo338 python3-pathspec
  libboost-iostreams1.83.0 libgspell-1-2 libplist3 python3-pluggy
  libboost-thread1.83.0 libibverbs1 libpostproc57 python3-setuptools-scm
  libcephfs2 libimobiledevice6 librados2 python3-trove-classifiers
  libdbus-glib-1-2 libiniparser1 librdmacm1t64 rwho
  libfreerdp-client2-2t64 libjim0.82t64 libusbmuxd6 rwhod
Use 'sudo apt autoremove' to remove them.

Installing:
  apksigner

Installing dependencies:
  libapksig-java

Summary:
  Upgrading: 0, Installing: 2, Removing: 0, Not Upgrading: 186
  Download size: 858 kB
  Space needed: 990 kB / 32.5 GB available

Continue? [Y/n] y
Get:1 http://kali.download/kali kali-rolling/main amd64 libapksig-java all 31.0.2-2 [410 kB]
Get:2 http://kali.download/kali kali-rolling/main amd64 apksigner all 31.0.2-2 [448 kB]
Fetched 858 kB in 1s (696 kB/s)
Selecting previously unselected package libapksig-java.
(Reading database ... 429351 files and directories currently installed.)
Preparing to unpack .../libapksig-java_31.0.2-2_all.deb ...
Unpacking libapksig-java (31.0.2-2) ...
Selecting previously unselected package apksigner.
Preparing to unpack .../apksigner_31.0.2-2_all.deb ...
Unpacking apksigner (31.0.2-2) ...
Setting up libapksig-java (31.0.2-2) ...
Setting up apksigner (31.0.2-2) ...
Processing triggers for kali-menu (2024.4.0) ...
Processing triggers for man-db (2.13.0-1) ...
```

Date: 15 /12 / 2024**Process Management**

- ps – View running processes.

```
(mudit@kali)-[~/Downloads]
$ ps
  PID TTY          TIME CMD
 12447 pts/0    00:00:14 zsh
 13555 pts/0    00:00:00 less
 13558 pts/0    00:00:00 less
 13591 pts/0    00:00:00 less
 13603 pts/0    00:00:00 nano
 13618 pts/0    00:00:00 vim
 14070 pts/0    00:00:00 top
 14482 pts/0    00:00:00 ping
 15597 pts/0    00:00:00 ps
```

- kill – Terminate a process.

```
(mudit@kali)-[~/Downloads]
$ kill -l
HUP INT QUIT ILL TRAP IOT BUS FPE KILL USR1 SEGV USR2 PIPE ALRM TERM STKFLT CHLD CONT STOP TSTP TTIN TTOU URG XCPU XF
SZ VTALRM PROF WINCH POLL PWR SYS
```

- jobs – List background jobs.

```
(mudit@kali)-[~/Downloads]
$ jobs
[1]  suspended less Source.txt
[2]  suspended less Source.txt
[3]  suspended less Source.txt
[4]  suspended (signal) nano
[5]  suspended vim
[6]  - suspended (signal) top
[7]  + suspended ping www.darshan.ac.in
```

- bg / fg – Resume jobs in background/foreground.

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```
(mudit@kali)-[~/Downloads]
$ sleep 500
^Z
zsh: suspended sleep 500

(mudit@kali)-[~/Downloads]
$ jobs
[1]  suspended less Source.txt
[2]  suspended less Source.txt
[3]  suspended less Source.txt
[4]  suspended (signal) nano
[5]  suspended vim
[6]  suspended (signal) top
[7]  - suspended ping www.darshan.ac.in
[8]  + suspended sleep 500

(mudit@kali)-[~/Downloads]
$ fg [8]
fg: job not found: [8]

(mudit@kali)-[~/Downloads]
$ fg %1
[1]  continued less Source.txt
(pwd : ~/Downloads/Demo-Of-Mkdir-Command)

zsh: suspended less Source.txt
(pwd now: ~/Downloads)
```

Scripting and Automation

- bash script.sh – Run a bash script.

```
(mudit@kali)-[~/Downloads]
$ nano

(mudit@kali)-[~/Downloads]
$ ls
03122024084535AM  AIML  Demo-Of-Mkdir-Command  script.sh
03122024084535AM.zip  CERTIFICATE  '[0]'  xampp-windows-x64-8.0.30-0-VS16-installer.exe

(mudit@kali)-[~/Downloads]
$ chmod +x script.sh

(mudit@kali)-[~/Downloads]
$ bash script.sh
Enter the first number:
10
Enter the second number:
20
The sum of 10 and 20 is: 30
```


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- `crontab -e` – Edit cron jobs for scheduling tasks.

```
(mudit@kali)-[~/Downloads]
$ crontab -e
no crontab for mudit - using an empty one
Select an editor. To change later, run select-editor again.
 1. /bin/nano          <---- easiest
 2. /usr/bin/vim.basic
 3. /usr/bin/vim.tiny

Choose 1-3 [1]: 3
zsh: suspended crontab -e
```

- `grep` – Search text in files.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ grep This Source.txt
--> This is example of cat command.
```

- `find` – Search for files.

```
(mudit@kali)-[~/Downloads/Demo-Of-Mkdir-Command]
$ find -type f -name "*.txt"
./Source.txt
```

2. Configure kali Linux with Virtual Machine.

Here are the brief steps to configure Kali Linux with a Virtual Machine:

1. Download Required Software
 - Download a Virtual Machine software Oracle VirtualBox.
 - Download the Kali Linux ISO file or the Kali Linux VirtualBox image from the official Kali Linux website.
2. Install Virtual Machine Software
 - Install VirtualBox on your host machine by following the installation prompts.
 - 3. Create a New Virtual Machine
 - Open VirtualBox and click New.
 - Enter a name (e.g., "Kali Linux") and select Linux as the type and Debian (64-bit) as the version.
3. Allocate Resources
 - Assign the RAM (minimum 2 GB, recommended 4 GB or more).
 - Set the Processor count (2 or more cores for optimal performance).
 - Create a new Virtual Hard Disk (20 GB or more recommended).
 - Attach Kali Linux Image
 - Go to Settings > Storage and add the Kali Linux ISO to the optical drive.



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6. Start the Virtual Machine
 - Boot the virtual machine, and it will load the Kali Linux installer or live environment.
 - Follow the on-screen instructions to install or run the live version of Kali Linux.
7. Install Kali Linux
 - Choose Graphical Install or Text Install (recommended: Graphical Install).
 - Set language, time zone, and keyboard layout.
 - Partition the disk (choose Guided - use entire disk for simplicity).
 - Create a user account and set a strong password.
 - Wait for the installation to complete.
8. Update Kali Linux
 - Open a terminal and run: `sudo apt update && sudo apt upgrade -y`
9. Start Using Kali Linux
 - Reboot the virtual machine if needed, and start exploring Kali Linux.