



MISSION HACKERS

BANGLADESH

Assignment No-01

Assignment Title: Kali Linux Terminal Commands

Course Title : Ethical Hacking

Submitted by:

Name: Istiak Alam

Phone : 01765376101

Submission Date: 08-07-25

Lab Task Topic : Familiarization of Linux Commands

Submitted to:

MD Sha Jalal

Founder of Mission Hackers Bangladesh

❑ Objective :

The objective of this assignment is to develop foundational proficiency in using the Kali Linux terminal for Cybersecurity and ethical hacking tasks. Students will learn and apply essential command-line operations to navigate the file system, manage files and directories, monitor system processes, and perform network-related tasks. By mastering these basic commands, students will gain the practical skills necessary to operate efficiently in a Linux-based penetration testing environment, which is critical for conducting real-world ethical hacking and security assessments.

❑ Introduction :

Kali Linux is a Debian-based distribution specifically designed for penetration testing and security auditing. Unlike traditional graphical user interfaces, many of Kali's powerful tools are executed from the terminal, making command-line proficiency a critical skill for any Cybersecurity professional. This assignment focuses on commonly used Linux terminal commands to help students become comfortable with the Linux environment and prepare them for more advanced ethical hacking tasks.

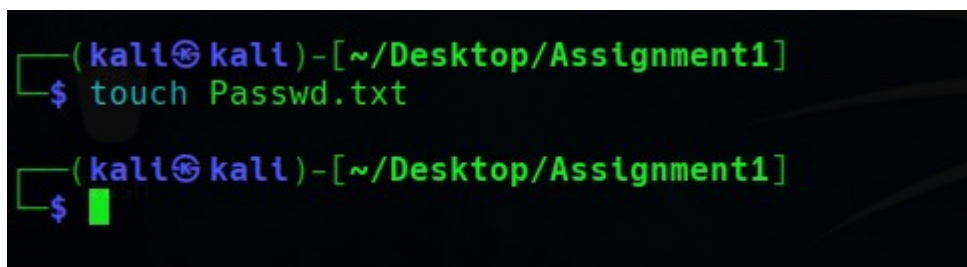
❑ Kali Linux Terminal Commands :

1.1 Creating Files using terminal

Syntax : touch file_name

Command : \$ **touch Passwd.txt**

Sample Input & Output :



```
(kali㉿kali)-[~/Desktop/Assignment1]
$ touch Passwd.txt

(kali㉿kali)-[~/Desktop/Assignment1]
$
```

1.2 Creating Folder using terminal

Syntax : `mkdir directory_name`

Command : `$ mkdir Assignment1`

Sample Input & Output :

```
(kali㉿kali)-[~/Desktop]
$ mkdir Assignment1

(kali㉿kali)-[~/Desktop]
$ cd Assignment1
```

1.3 Print Working Directory using terminal

Syntax : `pwd`

Command : `$ pwd`

Sample Input & Output :

```
(kali㉿kali)-[~/Desktop/Assignment1]
$ pwd
/home/kali/Desktop/Assignment1

(kali㉿kali)-[~/Desktop/Assignment1]
$
```

1.4 Change Directory using terminal

Syntax : `cd directory_name`

Command : `$ cd Assignment1`

Sample Input & Output :

```
(kali㉿kali)-[~/Desktop]
$ mkdir Assignment1

(kali㉿kali)-[~/Desktop]
$ cd Assignment1
```

1.5 Print Content using terminal

Syntax : `cat file_name`

Command : `$ cat Passwd.txt`

Sample Input & Output :

```
(kali㉿kali)-[~/Desktop/Assignment1]
$ nano -l Passwd.txt

(kali㉿kali)-[~/Desktop/Assignment1]
$ cat Passwd.txt
Password list :
Google
Goolgy
UserName
PassPass
Admin
admin
Password
password
Pass1234
12345678
NewPassword123
KaliKali
```

1.6 Text Editor using terminal

Syntax : `nano file_name`

Command : `$ nano -l Passwd.txt`

Sample Input & Output :

```
File  Actions  Edit  View  Help
GNU nano 8.4
1 Password list :
2 Google
3 Goolgy
4 UserName
5 PassPass
6 Admin
7 admin
8 Password
9 password
10 Pass1234
11 12345678
12 NewPassword123
13 KaliKali
14
15
```

1.7 Print List of all special dot files in a directory.

Syntax : `ls -a`

Command : `$ ls -a`

Sample Input & Output :

```
(kali㉿kali)-[~]
└─$ ls -a
.      Trash          .local
..     .mozilla
.bash_logout  Music
.bashrc       Pictures
.bashrc.original .profile
.cache        Public
.config       .sudo_as_admin_successful
Desktop       Templates
.dmrc         .vboxclient-clipboard-tty7-control.pid
Documents     .vboxclient-clipboard-tty7-service.pid
Downloads     .vboxclient-clipboard-tty8-control.pid
.face         .vboxclient-display-svga-x11-tty7-control.pi
.face.icon    .vboxclient-display-svga-x11-tty7-service.pi
.gnupg        .vboxclient-draganddrop-tty7-control.pid
.ICEauthority .vboxclient-draganddrop-tty7-service.pid
.java         .vboxclient-draganddrop-tty8-control.pid
```

1.8 Print Long List of files in a directory.

Syntax : `ls -l`

Command : `$ ls -l`

Sample Input & Output :

```
(kali㉿kali)-[~]
└─$ ls -l
total 32
drwxr-xr-x 3 kali kali 4096 Jul  8 13:25 Desktop
drwxr-xr-x 2 kali kali 4096 Jul  8 11:42 Documents
drwxr-xr-x 3 kali kali 4096 Jul  8 12:27 Downloads
drwxr-xr-x 2 kali kali 4096 Jul  8 11:42 Music
drwxr-xr-x 3 kali kali 4096 Jul  8 13:55 Pictures
drwxr-xr-x 2 kali kali 4096 Jul  8 11:42 Public
drwxr-xr-x 2 kali kali 4096 Jul  8 11:42 Templates
drwxr-xr-x 2 kali kali 4096 Jul  8 11:42 Videos
```

1.9 Print size of files in human readable form of a directory.

Syntax : `ls -l -h`

Command : `$ ls -l -h`

Sample Input & Output :

```
Istiak_OS_Lab : zsh — Konsole
New Tab Split View
(spyder@linux)-[~/Istiak_OS_Lab]
$ ls -l -h
total 8.0K
drwxrwxr-x 2 spyder spyder 4.0K Jan 18 13:09 Lab1
-rw-rw-r-- 1 spyder spyder  0 Jan 18 13:13 readme.md
-rw-rw-r-- 1 spyder spyder  0 Jan 18 13:13 Text2.txt
-rw-rw-r-- 1 spyder spyder 49 Jan 18 13:11 Text.txt
(spyder@linux)-[~/Istiak_OS_Lab]
$
```

1.10 Mark all the Executable files & Folder form of a directory.

Syntax : `ls -F`

Command : `$ ls -F`

Sample Input & Output :

```
Istiak_OS_Lab : zsh — Konsole
New Tab Split View
(spyder@linux)-[~/Istiak_OS_Lab]
$ ls -F
Lab1/  readme.md  Text2.txt  Text.txt
(spyder@linux)-[~/Istiak_OS_Lab]
$
```

1.11 Copy files & Directory using terminal.

Syntax : `cp [option] file1 file2`

Command : `$ cp Text.txt Copied.txt`

Sample Input & Output :

```
Istiak_OS_Lab : zsh — Konsole
New Tab Split View
(spyder@linux)-[~/Istiak_OS_Lab]
$ cp -r Lab1 Lab2
(spyder@linux)-[~/Istiak_OS_Lab]
$ ls
Copied.txt Lab1 Lab2 readme.md Text2.txt Text.txt
(spyder@linux)-[~/Istiak_OS_Lab]
$
```

```
Istiak_OS_Lab : zsh — Konsole
New Tab Split View
(spyder@linux)-[~/Istiak_OS_Lab]
$ cp Text.txt Copied.txt
(spyder@linux)-[~/Istiak_OS_Lab]
$ ls
Copied.txt Lab1 readme.md Text2.txt Text.txt
(spyder@linux)-[~/Istiak_OS_Lab]
$ cat Text.txt
This is a Text message From Operating System Lab
(spyder@linux)-[~/Istiak_OS_Lab]
$ cat Copied.txt
This is a Text message From Operating System Lab
(spyder@linux)-[~/Istiak_OS_Lab]
$
```


1.12 Remove or Delete files & Folder Using terminal.

Syntax : `rm file_name` //removing a file

Syntax : `rmdir directory_name` //removing a folder

Command : `$ rm Text2.txt`

Command : `$ rmdir Text2.txt`

Sample Input & Output :

```
Istiaq_OS_Lab : zsh — Konsole
New Tab Split View
(spyder@linux)-[~/Istiaq_OS_Lab]
$ cd Lab2
(spyder@linux)-[~/Istiaq_OS_Lab/Lab2]
$ rm readme.md
(spyder@linux)-[~/Istiaq_OS_Lab/Lab2]
$ cd ..
(spyder@linux)-[~/Istiaq_OS_Lab]
$ rmdir Lab2
(spyder@linux)-[~/Istiaq_OS_Lab]
$ ls
Copied.txt Lab1 readme.md Text.txt
(spyder@linux)-[~/Istiaq_OS_Lab]
$
```

1.13 Clear the contents of the terminal.

Syntax : `clear`

Command : `$ clear`

Sample Input & Output :

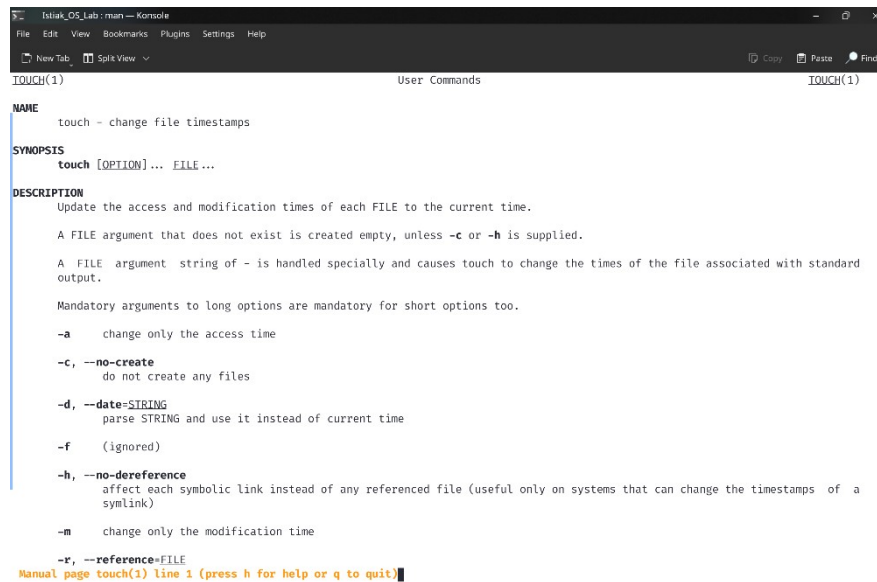
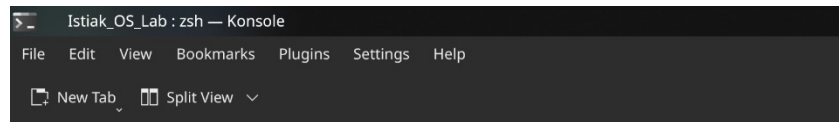
```
Istiaq_OS_Lab : zsh — Konsole
New Tab Split View
(spyder@linux)-[~/Istiaq_OS_Lab]
$ cd Lab2
(spyder@linux)-[~/Istiaq_OS_Lab/Lab2]
$ rm readme.md
(spyder@linux)-[~/Istiaq_OS_Lab/Lab2]
$ cd ..
(spyder@linux)-[~/Istiaq_OS_Lab]
$ rmdir Lab2
(spyder@linux)-[~/Istiaq_OS_Lab]
$ ls
Copied.txt Lab1 readme.md Text.txt
(spyder@linux)-[~/Istiaq_OS_Lab]
$ clear
```


1.14 View manual & help of specific command.

Syntax : `man Command_name`

Command : `$ man touch`

Sample Input & Output :



1.15 Print list or display the contents of a directory in a tree like format.

Syntax : `tree directory_name`

Command : `$ tree Arduino`

Sample Input & Output :

```
~: zsh — Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View
(spyder@kali)-[~]
$ tree Arduino
Arduino
├── Arduino+LCD I2C Pinout.jpg
├── Arduino UNO R3 SMD Pinout.png
├── Circuit-diagram-for-interfacing-laser-LED-module.jpg
├── Invisible Security System Project
│   ├── Laser_Project
│   │   ├── Laser_Project.ino
│   │   └── Laser_Security_The_Screwdriver.jpg
│   └── LCD_Display
│       └── LCD_Display.ino
├── Laser_Project
│   ├── Laser_Project.ino
│   ├── Laser_Project_wire.JPG
│   ├── Laser_Security_The_Screwdriver
│   │   ├── Laser_Security_The_Screwdriver.ino
│   │   └── Laser_Security_The_Screwdriver.jpg
│   └── Laser_testing
│       └── Laser_testing.ino
├── libraries
│   ├── Arduino-LiquidCrystal-I2C-library-master
│   │   ├── examples
│   │   │   ├── BlinkingCursor
│   │   │   │   └── BlinkingCursor.ino
│   │   │   ├── CustomChars
│   │   │   │   └── CustomChars.ino
│   │   │   ├── HelloWorld
│   │   │   │   └── HelloWorld.ino
│   │   │   └── SerialDisplay
│   │   │       └── SerialDisplay.ino
│   │   ├── keywords.txt
│   │   ├── LiquidCrystal_I2C.cpp
│   │   ├── LiquidCrystal_I2C.h
│   │   └── README.md
│   └── Node MCU V3 Pinout.png
├── sketch_sep18ablink
└── sketch_sep18ablink.ino

15 directories, 21 files
```

1.16 Find files using terminal.

Syntax : `locate [options] file_name`

Command : `$ locate -b art.jpg`

Sample Input & Output :

```
~: zsh — Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View
(spyder@kali)-[~]
$ locate -b art.jpg
/home/spyder/art.jpg
/home/spyder/.vscode/extensions/kostasx.live-html-previewer-v2-0.1.9/Resources/images/FlowChart.jpg
/home/spyder/Pictures/Screenshots/art.jpg
/opt/pt/help/default/flowcharts/DHCPClientFlowChart.jpg
/opt/pt/help/default/flowcharts/DHCPServerFlowChart.jpg
/opt/pt/help/default/flowcharts/VoIP_registration_flowchart.jpg
/opt/pt/help/default/flowcharts/VoIP_remote_call_flowchart.jpg

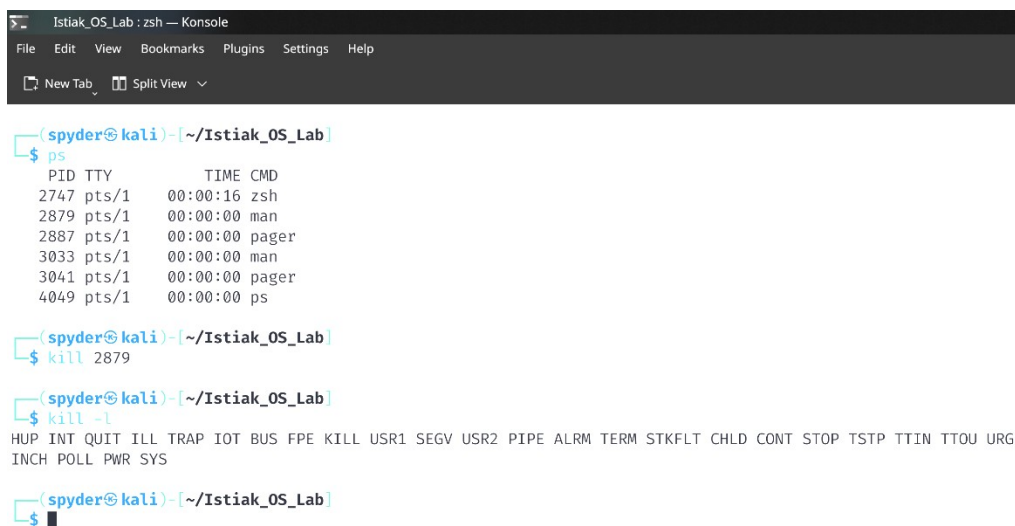
(spyder@kali)-[~]
$
```

1.17 Terminate a Process manually using terminal.

Syntax : kill [option] pid

Command : **\$ kill 2879**

Sample Input & Output :



```
Istiak_OS_Lab : zsh — Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View

(spyder@kali)~[~/Istiak_OS_Lab]
$ ps
  PID TTY          TIME CMD
 2747 pts/1    00:00:16 zsh
 2879 pts/1    00:00:00 man
 2887 pts/1    00:00:00 pager
 3033 pts/1    00:00:00 man
 3041 pts/1    00:00:00 pager
 4049 pts/1    00:00:00 ps

(spyder@kali)~[~/Istiak_OS_Lab]
$ kill 2879

(spyder@kali)~[~/Istiak_OS_Lab]
$ 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
INCH POLL PWR SYS

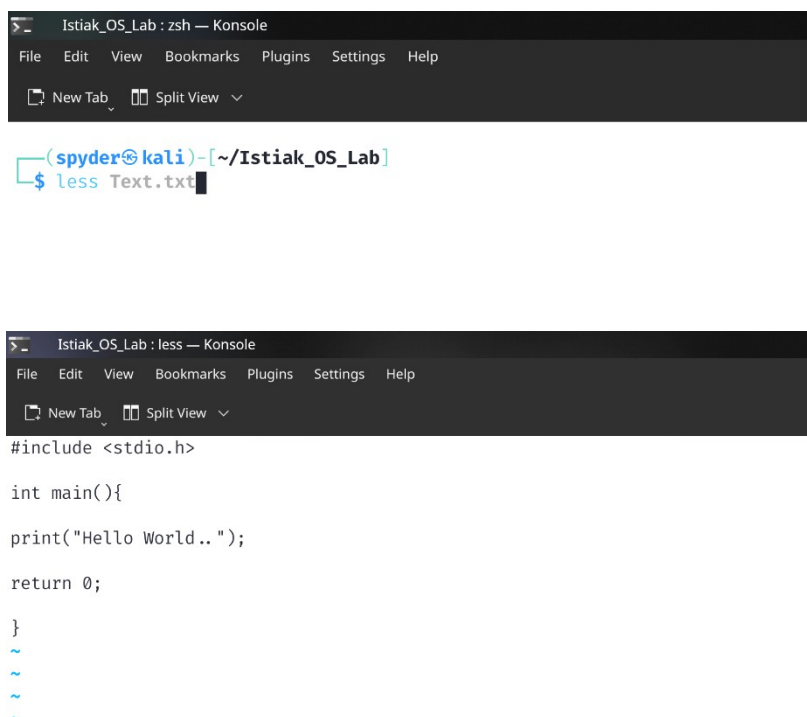
(spyder@kali)~[~/Istiak_OS_Lab]
$
```

1.18 Print Content of a file one scornful at a time using terminal

Syntax : less file_name

Command : **\$ less Text.txt**

Sample Input & Output :



```
Istiak_OS_Lab : zsh — Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View

(spyder@kali)~[~/Istiak_OS_Lab]
$ less Text.txt

Istiak_OS_Lab : less — Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View

#include <stdio.h>

int main(){

print("Hello World..");

return 0;

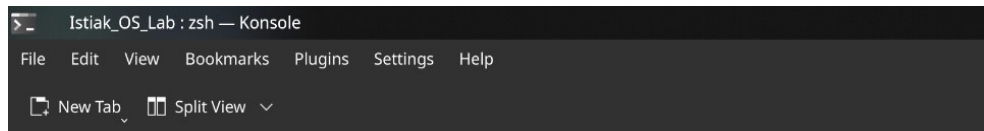
}
~
~
~
~
```

1.19 Display username or who logged in.

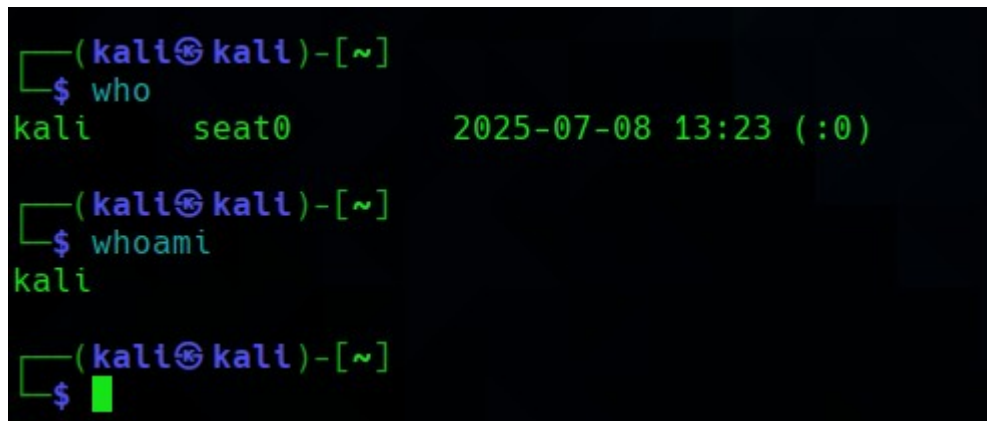
Syntax : who

Syntax : whoami

Sample Input & Output :



```
(spyder@kali) - [~/Istiak_OS_Lab]
$ whoami
spyder
(spyder@kali) - [~/Istiak_OS_Lab]
$
```



1.20 Print the resource being used in system using terminal

Syntax : top

Command : \$ top

Sample Input & Output :



```
(spyder@kali) - [~/Istiak_OS_Lab]
$ top
```

```

top - 20:34:02 up 2:28, 2 users, load average: 0.86, 0.68, 0.72
Tasks: 215 total, 1 running, 212 sleeping, 2 stopped, 0 zombie
%Cpu(s): 11.4 us, 5.1 sy, 0.0 ni, 76.1 id, 7.1 wa, 0.0 hi, 0.3 si, 0.0 st
MiB Mem : 7225.2 total, 1501.5 free, 4278.9 used, 3273.9 buff/cache
MiB Swap: 7458.0 total, 7422.0 free, 36.0 used, 2946.4 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM    TIME+  COMMAND
 1834 spyder    20   0 3624880 309372 123676 S   17.9   4.2   5:36.63 kwin_x11
 1870 spyder    20   0 3185968 389856 164680 S   15.6   5.3   2:50.16 plasmashell
 1552 spyder    20   0 920532 155676 103500 S    9.3   2.1   4:15.83 Xorg
 2442 spyder    20   0 1161.9g 470868 187084 S    6.3   6.4  10:42.56 Discord
 7998 spyder    20   0 1024292 162380 135376 S    4.3   2.2   0:05.76 konsole
 8364 spyder    20   0 10372    5600   3552 R    1.3   0.1   0:00.13 top
 1654 spyder    20   0 458228    9280   5976 S    1.0   0.1   0:11.11 ibus-daemon
 1906 spyder    20   0 229164    2320   20848 S    0.7   0.3   0:01.75 xembedsniproxy
 2050 spyder    20   0 1156.3g 229628 162780 S    0.7   3.1   0:50.33 Discord
    16 root      20   0      0      0      0 S    0.3   0.0   0:00.32 ksoftirqd/0
    78 root      20   0      0      0      0 S    0.3   0.0   0:01.44 hwrng
 1488 spyder    20   0 23248    13956  10756 S    0.3   0.2   0:01.51 systemd
 1513 spyder     9 -11 176920    14492   7368 S    0.3   0.2   0:31.39 pipewire-pulse
 1514 spyder    20   0 9852     7016   4328 S    0.3   0.1   0:09.65 dbus-daemon
 1667 spyder    20   0 955952  93444  71384 S    0.3   1.3   0:04.70 ibus-ui-gtk3
 1669 spyder    20   0 727916    80652  60388 S    0.3   1.1   0:09.00 ibus-extension-
 1831 spyder    20   0 1402728 127028 100584 S    0.3   1.7   0:11.00 kded5
 1972 spyder    20   0 238240    26944  23104 S    0.3   0.4   0:25.82 ksystemstats
 2007 spyder    20   0 222584    22032  19600 S    0.3   0.3   0:01.82 kscreen_backend
 2332 spyder    20   0 32.8g   113168  64812 S    0.3   1.5   1:15.70 Discord

```

1.21 Modify file access permissions using terminal.

Syntax : `chmod [options] permission_filename`

Command : `$ chmod 111 Text.txt`

Sample Input & Output :

```

Istiak_OS_Lab: mousepad — Konsole
File Edit View Bookmarks Plugins Settings Help

New Tab Split View

(spyder@kali)~[/Istiak_OS_Lab]
$ ls
Text.txt

(spyder@kali)~[/Istiak_OS_Lab]
$ sudo chmod 111 Text.txt
[sudo] password for spyder:

(spyder@kali)~[/Istiak_OS_Lab]
$ ls
Text.txt

(spyder@kali)~[/Istiak_OS_Lab]
$ mousepad Text.txt
Gtk-Message: 14:12:30.357: Failed to load module "appmenu-gtk-module": 'gtk_module_dis
odules/libwindow-decorations-gtk-module.so: undefined symbol: gtk_module_display_init

Mousepad
Failed to open the document.
Error opening file /home/spyder/Istiak_OS_Lab/Text.txt: Permission denied.

```

1.22 Change the user and / or group ownership of a given file, directory or symbolic link using terminal.

Syntax : `chown [options] user [group] file_name`

Command : `$ chown kali Text.txt`

Sample Input & Output :

```
Istiak_OS_Lab : zsh — Konsole
File Edit View Bookmarks Plugins Settings Help
New Tab Split View

(spyder@kali)~[~/Istiak_OS_Lab]
$ sudo chmod 111 Text.txt

(spyder@kali)~[~/Istiak_OS_Lab]
$ ls -l Text.txt
--X--X--X 1 spyder spyder 71 Jan 25 13:55 Text.txt

(spyder@kali)~[~/Istiak_OS_Lab]
$ sudo chown kali Text.txt
chown: invalid user: 'kali'

(spyder@kali)~[~/Istiak_OS_Lab]
$ sudo chmod 777 Text.txt

(spyder@kali)~[~/Istiak_OS_Lab]
$ ls -l Text.txt
-rwxrwxrwx 1 spyder spyder 71 Jan 25 13:55 Text.txt

(spyder@kali)~[~/Istiak_OS_Lab]
$
```

1.23 Shows the size used and available space on the mounted file system.

Syntax : `df [option] file`

Command : `$ df -h`

Sample Input & Output :

```
(kali@kali)~[~/Desktop/Assignment1]
$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            2.8G   0    2.8G   0% /dev
tmpfs           585M  988K  584M   1% /run
/dev/sda1       79G   17G   59G  22% /
tmpfs           2.9G  4.0K  2.9G   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           2.9G  584K  2.9G   1% /tmp
tmpfs           1.0M   0    1.0M   0% /run/credentials/getty@tty1.service
tmpfs           585M  132K  585M   1% /run/user/1000
```

1.24 Testing Internet Connection using Google DNS

Syntax : ping [DNS server]

Command : **ping 8.8.8.8**

Sample Input & Output :

```
(kali㉿kali)-[~/Desktop/Assignment1]
$ ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=116 time=36.0 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=116 time=31.6 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=116 time=32.7 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=116 time=29.1 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=116 time=31.0 ms
^C
--- 8.8.8.8 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4041ms
rttmin/avg/max/mdev = 29.129/32.074/35.997/2.268 ms
```

1.25 Showing Commands History in terminal

Syntax : history

Sample Input & output :

```
(kali㉿kali)-[~/Desktop/Assignment1]
$ history
1 history
2 history clear
3 man history
4 sudo apt-get update && sudo apt-get upgrade
5 history
6 sudo systemctl start NetworkManager
7 sudo systemctl status NetworkManager
8 cd Downloads
9 sudo su
10 cd Desktop
11 mkdir Assignment1
12 cd Assignment1
13 touch Passwd.txt
14 pwd
15 nano -l Passwd.txt
16 cat Passwd.txt
17 cd ..
18 ls -a
19 ls -l
20 ls -l -h
21 ls -F
22 cd Desktop
23 cd Assignment1
24 cp Passwd.txt pass.txt
25 clear
26 tree
```

```
26 tree
27 cd ..
28 tree
29 cd ..
30 tree
31 ps
32 kill 214115
33 kill 21415
34 kill 1833
35 ps
36 who
37 whoami
38 cd Desktop
39 cd Assignment1
40 sudo chmod +x pass
41 sudo chmod +x pass.txt
42 ls
43 cd ..
44 df -h as
45 cd Assignment1
46 df -h
47 ping 8.8.8.8
48 ping -5 8.8.8.8
49 ping -3 8.8.8.8
50 clear
51 ping 8.8.8.8
52 clear

(kali㉿kali)-[~/Desktop/Assignment1]
```