

## ASSESSMENT-1

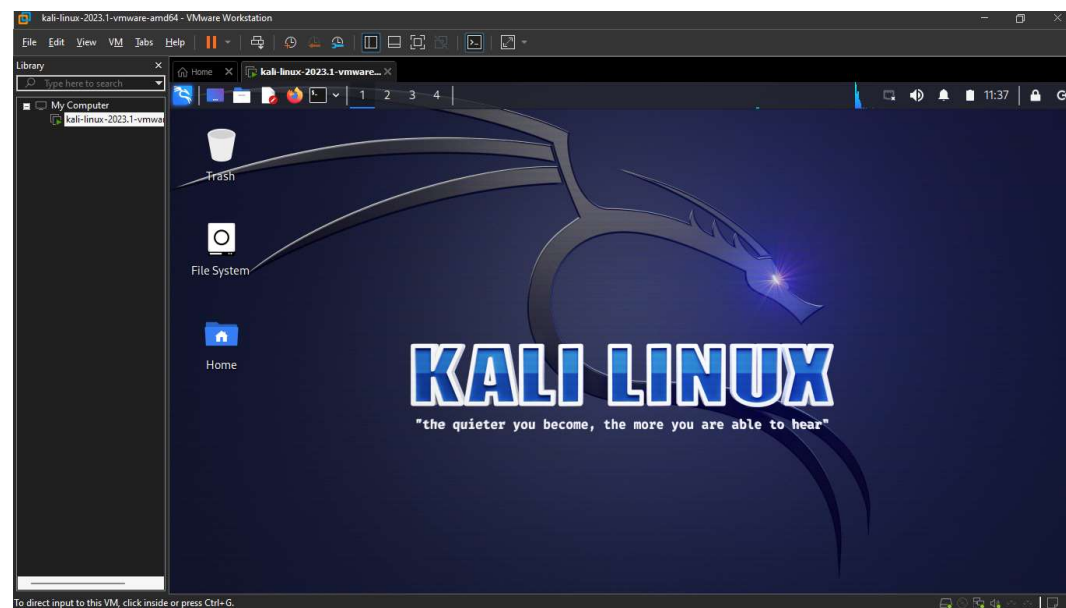
### Title: Linux Command List Assessment

#### Instructions:-

The following assessment aims to test your understanding and practical knowledge of various Linux commands. Perform the tasks given below using the appropriate commands. Write down the command(s) used to complete each task. You can use any Linux distribution or command-line interface of your choice. Ensure that you provide the correct output or results for each task.

Note: It is recommended to perform this assessment on a Linux machine or virtual environment.

#### Platform Used:-



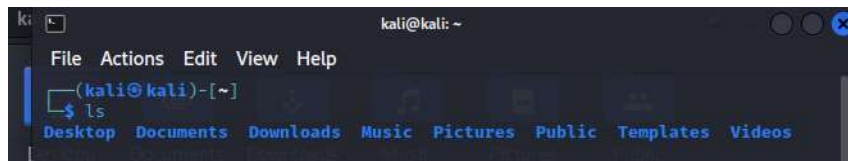
## File and Directory Operations:

1. ls: List files and directories

—(kali@kali)-[~]

└─\$ ls

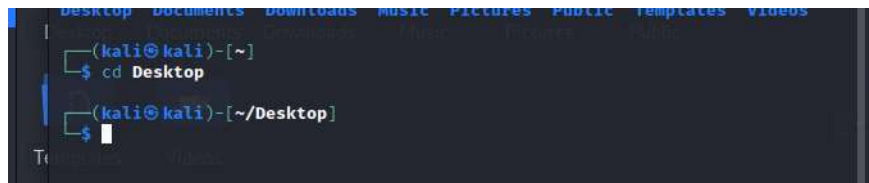
Desktop Documents Downloads Music Pictures Public Templates Videos



1. cd: Change directory

—(kali@kali)-[~]

└─\$ cd Desktop



1. pwd: Print working directory

└─(kali@kali)-[~/Desktop]

└─\$ pwd

/home/kali/Desktop



1. mkdir: Make directory

└─(kali@kali)-[~/Desktop]

└─\$ mkdir gagan\_folder

```
/home/kali/Desktop  
(kali@kali)~[/Desktop]  
$ mkdir gagan_folder  
(kali@kali)~[/Desktop]  
$
```

1. touch: Create an empty file

```
(kali@kali)~[/Desktop]  
$ touch file1
```

```
(kali@kali)~[/Desktop]  
$ ls  
file1 gagan_folder
```

```
(kali@kali)~[/Desktop]  
$ touch file1  
(kali@kali)~[/Desktop]  
$ ls  
file1 gagan_folder
```

1. cp: Copy files and directories

```
(kali@kali)~[/Desktop]  
$ cp file1 folder1
```

```
(kali@kali)~[/Desktop]  
$ ls folder1  
folder1
```

```
(kali@kali)~[/Desktop]  
$ cp file1 gagan_folder  
(kali@kali)~[/Desktop]  
$ ls gagan_folder  
file1
```

## 1. mv: Move or rename files and directories

```
(kali㉿kali)-[~/Desktop]
```

```
└─$ touch file2.txt
```

```
(kali㉿kali)-[~/Desktop]
```

```
└─$ ls
```

```
file1 file2.txt folder1 gagan_folder
```

```
(kali㉿kali)-[~/Desktop]
```

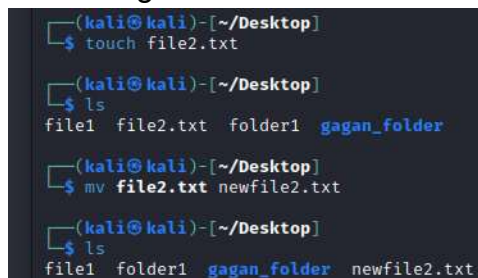
```
└─$ mv file2.txt newfile2.txt
```

```
(kali㉿kali)-[~/Desktop]
```

```
└─$ ls
```

```
file1 folder1 gagan_folder newfile2.txt
```

### Renaming



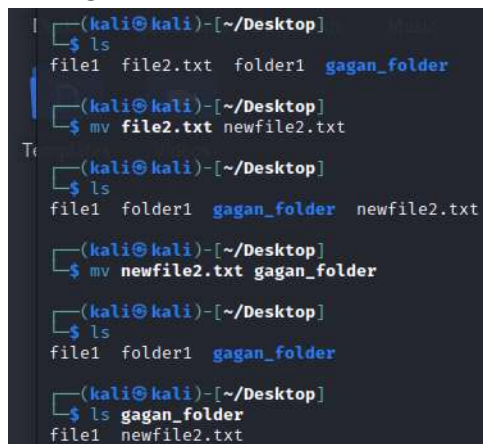
```
(kali㉿kali)-[~/Desktop]
└─$ touch file2.txt

(kali㉿kali)-[~/Desktop]
└─$ ls
file1 file2.txt folder1 gagan_folder

(kali㉿kali)-[~/Desktop]
└─$ mv file2.txt newfile2.txt

(kali㉿kali)-[~/Desktop]
└─$ ls
file1 folder1 gagan_folder newfile2.txt
```

### Moving



```
(kali㉿kali)-[~/Desktop]
└─$ ls
file1 file2.txt folder1 gagan_folder

(kali㉿kali)-[~/Desktop]
└─$ mv file2.txt newfile2.txt

(kali㉿kali)-[~/Desktop]
└─$ ls
file1 folder1 gagan_folder newfile2.txt

(kali㉿kali)-[~/Desktop]
└─$ mv newfile2.txt gagan_folder

(kali㉿kali)-[~/Desktop]
└─$ ls
file1 folder1 gagan_folder

(kali㉿kali)-[~/Desktop]
└─$ ls gagan_folder
file1 newfile2.txt
```

## 1. rm: Remove files and directories

└─(kali㉿kali)-[~/Desktop]

└─\$ rm file1

A terminal window with a dark background. The prompt is (kali㉿kali)-[~/Desktop]. The user enters \$ rm file1. The prompt changes to (kali㉿kali)-[~/Desktop] and the user enters \$.

1. find: Search for files and directories

└─(kali㉿kali)-[~/Desktop]

└─\$ ls gagan\_folder

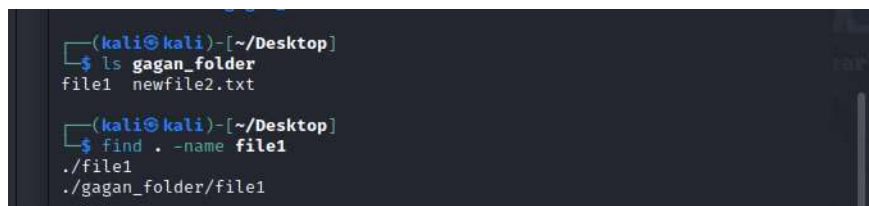
file1 newfile2.txt

└─(kali㉿kali)-[~/Desktop]

└─\$ find . -name file1

./file1

./gagan\_folder/file1

A terminal window with a dark background. The prompt is (kali㉿kali)-[~/Desktop]. The user enters \$ ls gagan\_folder, and the output is file1 newfile2.txt. The prompt changes to (kali㉿kali)-[~/Desktop]. The user enters \$ find . -name file1, and the output is ./file1 and ./gagan\_folder/file1.

## File Viewing and Editing:

1. cat: Concatenate and display file content

```
File Actions Edit View Help

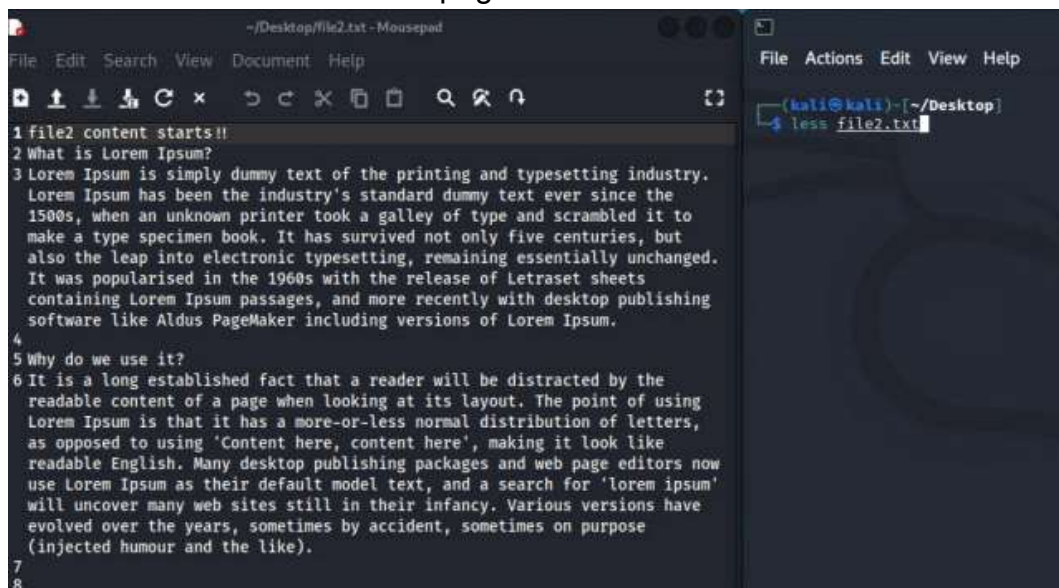
(kali@kali)-[~/Desktop]
$ cat >file1.txt
hello world, file1 content!!

(kali@kali)-[~/Desktop]
$ cat >file2.txt
file2 content starts!!

(kali@kali)-[~/Desktop]
$ cat file1.txt file2.txt
hello world, file1 content!!
file2 content starts!!

(kali@kali)-[~/Desktop]
$
```

1. less: View file content with pagination



1. head: Display the beginning of a file

```
kali@kali: ~/Desktop
File Actions Edit View Help

(kali@kali)-[~]
└─$ cd Desktop

(kali@kali)-[~/Desktop]
└─$ head file2.txt
file2 content starts!!
What is Lorem Ipsum?
Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's stand
since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has
ive centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in
release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like
uding versions of Lorem Ipsum.

Why do we use it?
It is a long established fact that a reader will be distracted by the readable content of a page when looking at its
f using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using 'Content here,
ng it look like readable English. Many desktop publishing packages and web page editors now use Lorem Ipsum as their
and a search for 'lorem ipsum' will uncover many web sites still in their infancy. Various versions have evolved ov
mes by accident, sometimes on purpose (injected humour and the like).

Where does it come from?
Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin litera
ing it over 2000 years old. Richard McClintock, a Latin professor at Hampden-Sydney College in Virginia, looked up o
re Latin words, consectetur, from a Lorem Ipsum passage, and going through the cites of the word in classical litera
```

## 1. tail: Display the end of a file

```
(kali@kali)-[~/Desktop]
└─$ tail file2.txt
It is a long established fact that a reader will be distracted by the readable content of a page when looking at its
layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to
using 'Content here, content here', making it look like readable English. Many desktop publishing packages and web p
age editors now use Lorem Ipsum as their default model text, and a search for 'lorem ipsum' will uncover many web si
tes still in their infancy. Various versions have evolved over the years, sometimes by accident, sometimes on purpos
e (injected humour and the like).

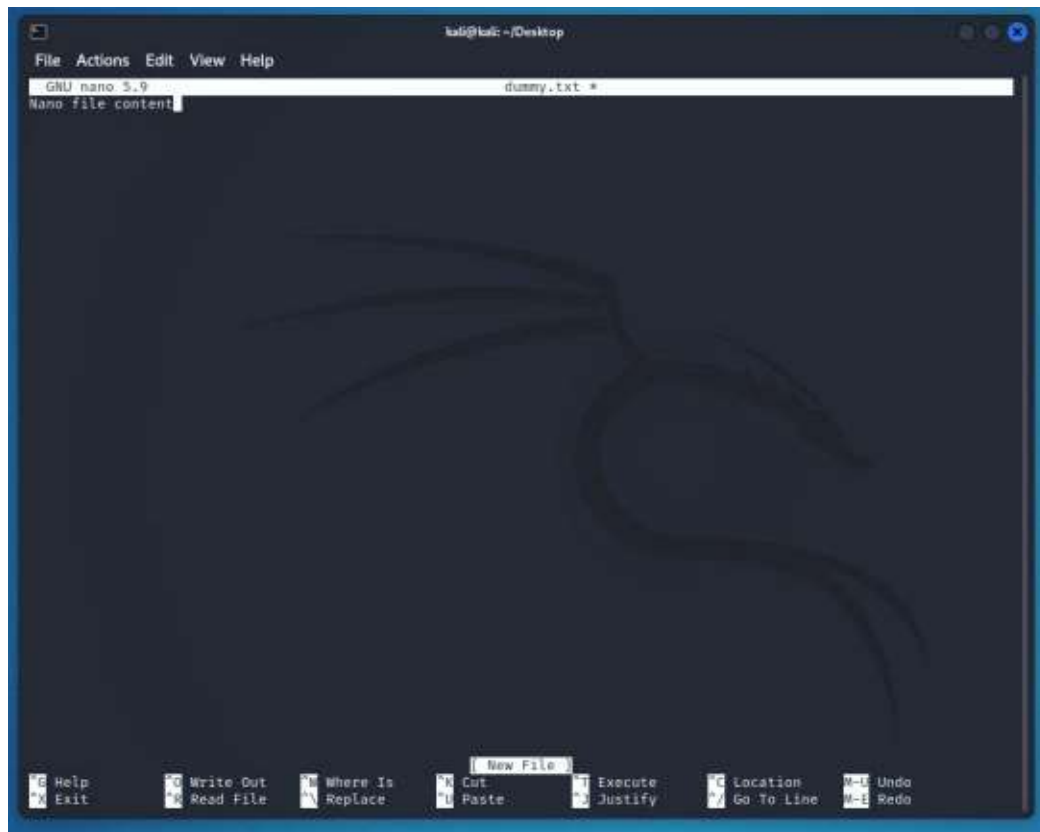
Where does it come from?
Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin litera
ture from 45 BC, making it over 2000 years old. Richard McClintock, a Latin professor at Hampden-Sydney College in V
irginia, looked up one of the more obscure Latin words, consectetur, from a Lorem Ipsum passage, and going through t
he cites of the word in classical literature, discovered the undoubtable source. Lorem Ipsum comes from sections 1.1
0.32 and 1.10.33 of "de Finibus Bonorum et Malorum" (The Extremes of Good and Evil) by Cicero, written in 45 BC. Thi
s book is a treatise on the theory of ethics, very popular during the Renaissance. The first line of Lorem Ipsum, "L
orem ipsum dolor sit amet..", comes from a line in section 1.10.32.

The standard chunk of Lorem Ipsum used since the 1500s is reproduced below for those interested. Sections 1.10.32 an
d 1.10.33 from "de Finibus Bonorum et Malorum" by Cicero are also reproduced in their exact original form, accompani
ed by English versions from the 1914 translation by W. Rackham.

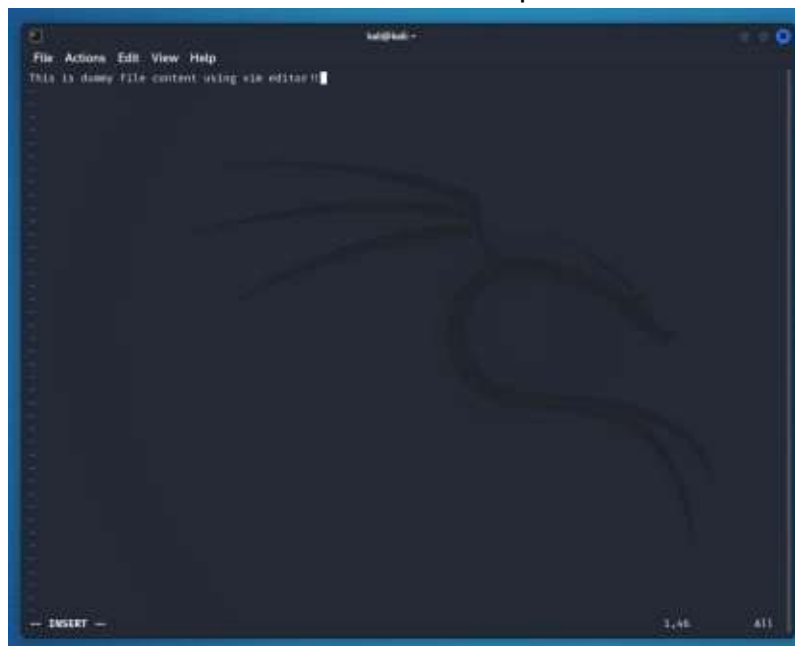
Where can I get some?
There are many variations of passages of Lorem Ipsum available, but the majority have suffered alteration in some fo
rm, by injected humour, or randomised words which don't look even slightly believable. If you are going to use a pas
sage of Lorem Ipsum, you need to be sure there isn't anything embarrassing hidden in the middle of text. All the Lor
em Ipsum generators on the Internet tend to repeat predefined chunks as necessary, making this the first true genera
tor on the Internet. It uses a dictionary of over 200 Latin words, combined with a handful of model sentence structu
res, to generate Lorem Ipsum which looks reasonable. The generated Lorem Ipsum is therefore always free from repetit
ion, injected humour, or non-characteristic words etc.

(kali@kali)-[~/Desktop]
└─$
```

## 1. nano: Text editor for creating and editing files



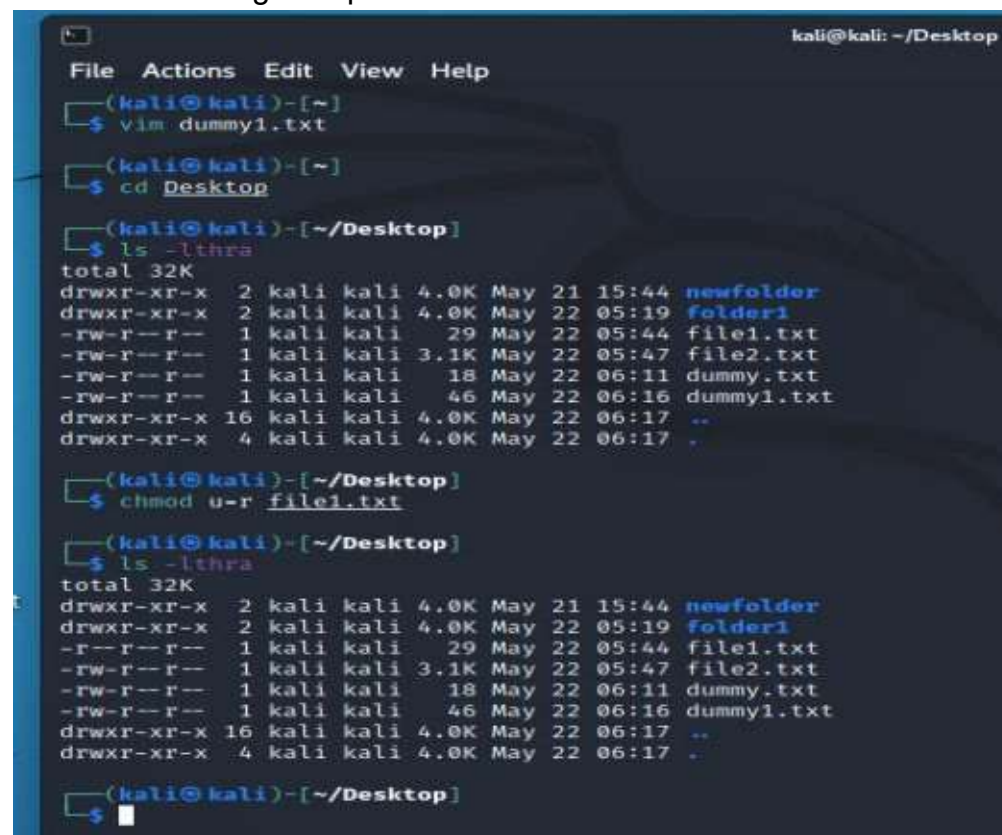
# 1. vi/vim: Powerful text editor for experienced users





## File Permissions:

1. chmod: Change file permissions



```
kali@kali: ~/Desktop
File Actions Edit View Help
(kali@kali)-[~]
$ vim dummy1.txt
(kali@kali)-[~]
$ cd Desktop
(kali@kali)-[~/Desktop]
$ ls -lthra
total 32K
drwxr-xr-x  2 kali kali 4.0K May 21 15:44 newfolder
drwxr-xr-x  2 kali kali 4.0K May 22 05:19 folder1
-rw-r--r--  1 kali kali  29 May 22 05:44 file1.txt
-rw-r--r--  1 kali kali 3.1K May 22 05:47 file2.txt
-rw-r--r--  1 kali kali  18 May 22 06:11 dummy.txt
-rw-r--r--  1 kali kali  46 May 22 06:16 dummy1.txt
drwxr-xr-x 16 kali kali 4.0K May 22 06:17 ..
drwxr-xr-x  4 kali kali 4.0K May 22 06:17 .
(kali@kali)-[~/Desktop]
$ chmod u-r file1.txt
(kali@kali)-[~/Desktop]
$ ls -lthra
total 32K
drwxr-xr-x  2 kali kali 4.0K May 21 15:44 newfolder
drwxr-xr-x  2 kali kali 4.0K May 22 05:19 folder1
-r--r--r--  1 kali kali  29 May 22 05:44 file1.txt
-rw-r--r--  1 kali kali 3.1K May 22 05:47 file2.txt
-rw-r--r--  1 kali kali  18 May 22 06:11 dummy.txt
-rw-r--r--  1 kali kali  46 May 22 06:16 dummy1.txt
drwxr-xr-x 16 kali kali 4.0K May 22 06:17 ..
drwxr-xr-x  4 kali kali 4.0K May 22 06:17 .
(kali@kali)-[~/Desktop]
$
```

1. chown: Change file owner

```
File Machine View Input Devices Help
(kali@kali)-[~/Desktop]
$ chmod 777 file1.txt
(kali@kali)-[~/Desktop]
$ ls -l
total 24
-rw-r--r-- 1 kali kali 46 May 22 06:16 dummy1.txt
-rw-r--r-- 1 kali kali 18 May 22 06:11 dummy.txt
-rwxrwxrwx 1 kali kali 20 May 22 05:44 file1.txt
-rw-r--r-- 1 kali kali 3113 May 22 05:47 file2.txt
drwxr-xr-x 2 kali kali 4096 May 22 05:19 folder1
drwxr-xr-x 2 kali kali 4096 May 21 15:44 newfolder
(kali@kali)-[~/Desktop]
$ sudo su root
We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:

#1) Respect the privacy of others.
#2) Think before you type.
#3) With great power comes great responsibility.

[sudo] password for kali:
kSorry, try again.
[sudo] password for kali:
aSorry, try again.
[sudo] password for kali:
sudo: 3 incorrect password attempts
(kali@kali)-[~/Desktop]
$ sudo su root
We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:

#1) Respect the privacy of others.
#2) Think before you type.
#3) With great power comes great responsibility.

[sudo] password for kali:
root@kali: ~/home/kali/Desktop
# chown root file1.txt
root@kali: ~/home/kali/Desktop
$ ls -l
total 24
-rw-r--r-- 1 kali kali 46 May 22 06:16 dummy1.txt
-rw-r--r-- 1 kali kali 18 May 22 06:11 dummy.txt
-rwxrwxrwx 1 root kali 20 May 22 05:44 file1.txt
-rw-r--r-- 1 kali kali 3113 May 22 05:47 file2.txt
drwxr-xr-x 2 kali kali 4096 May 22 05:19 folder1
```

1. chgrp: Change file group

```
[sudo] password for kali:
kali@kali:~/home/kali/Desktop$ chown root file1.txt

kali@kali:~/home/kali/Desktop$ ls -l
total 24
-rw-r--r-- 1 kali kali 46 May 22 06:16 dummy1.txt
-rw-r--r-- 1 kali kali 18 May 22 06:11 dummy.txt
-rw-rw-rw- 1 root root 29 May 22 05:44 file1.txt
-rw-r--r-- 1 kali kali 3113 May 22 05:47 file2.txt
drwxr-xr-x 2 kali kali 4096 May 22 05:19 folder1
drwxr-xr-x 2 kali kali 4096 May 21 15:44 newfolder

kali@kali:~/home/kali/Desktop$ chgrp root file1.txt

kali@kali:~/home/kali/Desktop$ ls -l
total 24
-rw-r--r-- 1 kali kali 46 May 22 06:16 dummy1.txt
-rw-r--r-- 1 kali kali 18 May 22 06:11 dummy.txt
-rw-rw-rw- 1 root root 29 May 22 05:44 file1.txt
-rw-r--r-- 1 kali kali 3113 May 22 05:47 file2.txt
drwxr-xr-x 2 kali kali 4096 May 22 05:19 folder1
drwxr-xr-x 2 kali kali 4096 May 21 15:44 newfolder
```

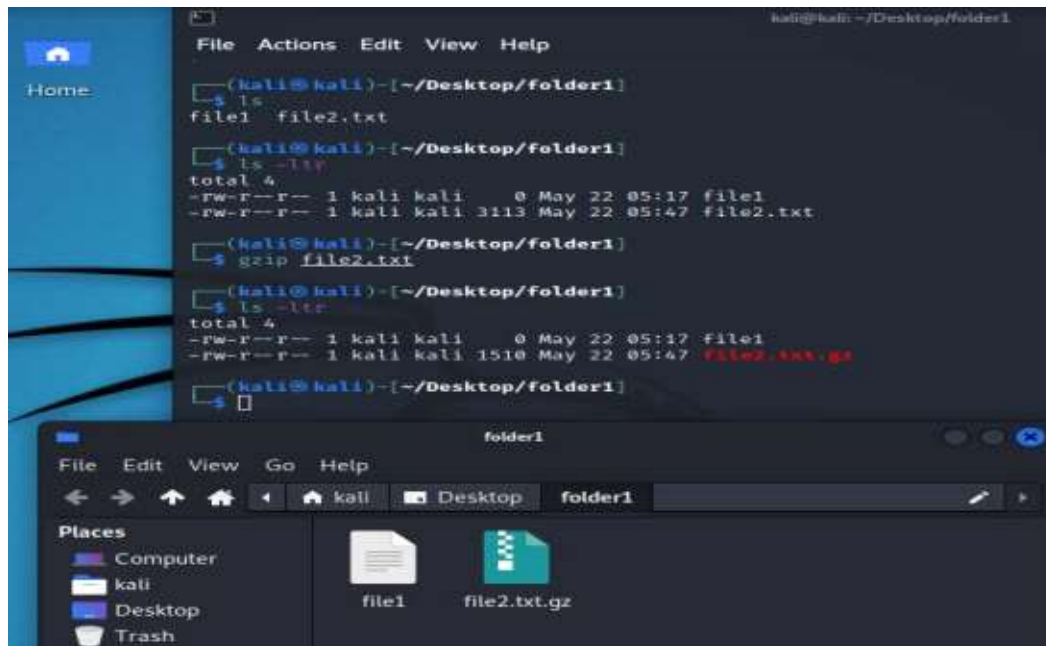
## File Compression and Archiving:

### 1. tar: Archive files

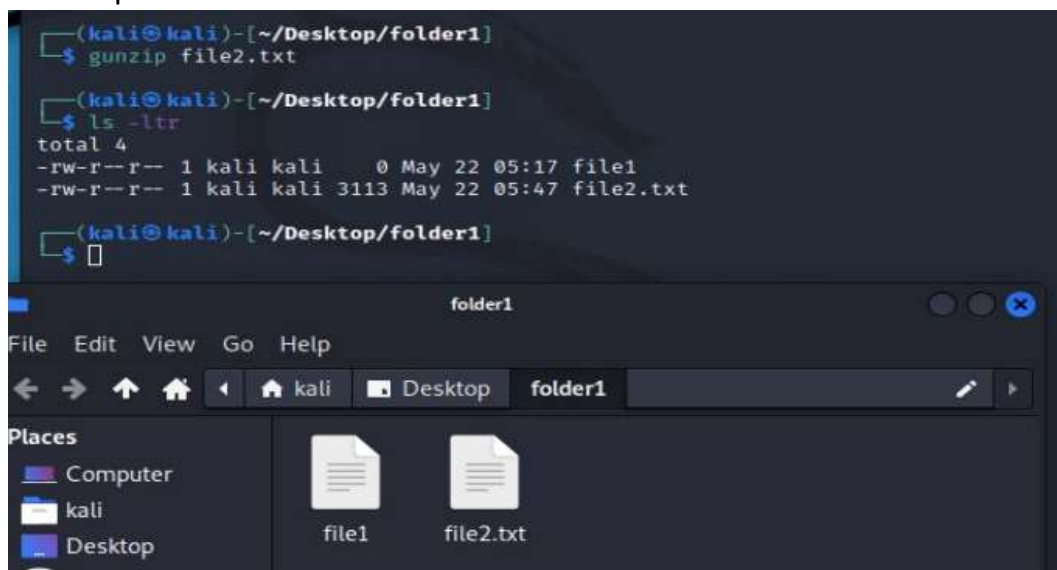
```
kali@kali:~/Desktop$ tar -xvf archive.tar dummy1.txt dummy.txt
dummy1.txt
dummy.txt

kali@kali:~/Desktop$ tar -cvf archive.tar
kali@kali:~/Desktop$ tar -xvf archive.tar
-rw-r--r-- kali/kali 46 2023-05-22 06:16 dummy1.txt
-rw-r--r-- kali/kali 18 2023-05-22 06:11 dummy.txt
```

### 1. gzip: Compress files

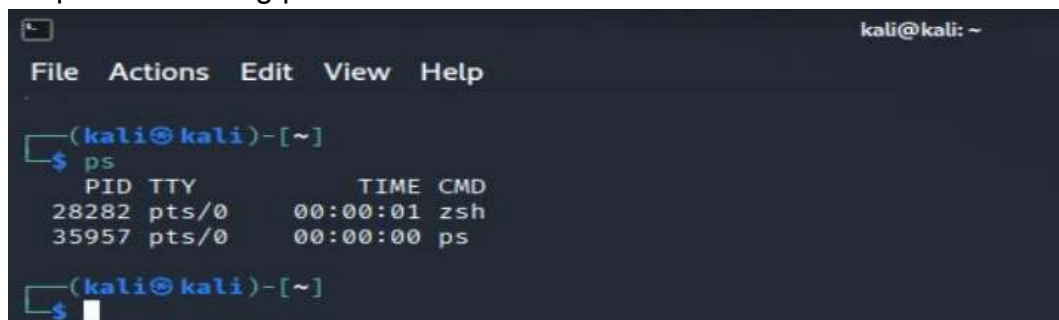


# 1. unzip: Extract files from a ZIP archive



## Process Management:

1. ps: List running processes

A terminal window with a dark background. The title bar shows a window icon and the text 'kali@kali: ~'. The menu bar contains 'File', 'Actions', 'Edit', 'View', and 'Help'. The prompt is '(kali@kali)-[~]'. The user enters '\$ ps'. The output is a table with columns 'PID', 'TTY', 'TIME', and 'CMD'.

PID	TTY	TIME	CMD
28282	pts/0	00:00:01	zsh
35957	pts/0	00:00:00	ps

The prompt returns to '(kali@kali)-[~]' with a cursor on the next line.

1. top: Display real-time system information and processes

```

top - 06:44:46 up 2:29, 1 user, load average: 0.11, 0.07, 0.08
Tasks: 147 total, 1 running, 146 sleeping, 0 stopped, 0 zombie
MiB Mem : 1982.0 total, 343.5 free, 638.6 used, 999.8 buff/cache
MiB Swap: 975.0 total, 975.0 free, 0.0 used, 1124.5 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR   S    %CPU  %MEM     TIME+ COMMAND
 491 root        20   0 580260 182360 77156 S    1.0   9.0   1:59.65 Xorg
 778 kali       20   0 152864 2864   2408 S    0.7   0.1   0:24.66 VBoxClient
 869 kali       20   0 355264 33864 20056 S    0.7   1.7   1:04.40 panel-13-cpugra
 873 kali       20   0 424700 29524 19912 S    0.7   1.5   0:31.02 panel-15-gemmon
 827 kali       20   0 921860 93576 85748 S    0.3   4.6   0:46.52 xfwm4
12557 root        20   0     0     0     0 I    0.3   0.0   0:15.87 kworker/1:2-mm_percpu_wq
28279 kali      20   0 412592 85764 67608 S    0.3   4.2   0:03.74 qterminal
36170 kali      20   0 10324 3856 3292 R    0.3   0.2   0:00.06 top
   1 root        20   0 164592 18748 7952 S    0.0   0.5   0:01.51 systemd
   2 root        20   0     0     0     0 S    0.0   0.0   0:00.02 kthreadd
   3 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 rcu_gp
   4 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 rcu_par_gp
   6 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 kworker/0:0H-events_highpri
   8 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 mm_percpu_wq
   9 root        20   0     0     0     0 S    0.0   0.0   0:00.00 rcu_tasks_rude_
  10 root        20   0     0     0     0 S    0.0   0.0   0:00.00 rcu_tasks_trace
  11 root        20   0     0     0     0 S    0.0   0.0   0:00.69 ksoftirqd/0
  12 root        20   0     0     0     0 I    0.0   0.0   0:07.02 rcu_sched
  13 root        rt   0     0     0     0 S    0.0   0.0   0:00.04 migration/0
  15 root        20   0     0     0     0 S    0.0   0.0   0:00.00 cpuhp/0
  16 root        20   0     0     0     0 S    0.0   0.0   0:00.00 cpuhp/1
  17 root        rt   0     0     0     0 S    0.0   0.0   0:00.76 migration/1
  18 root        20   0     0     0     0 S    0.0   0.0   0:01.96 ksoftirqd/1
  20 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 kworker/1:0H-events_highpri
  23 root        20   0     0     0     0 S    0.0   0.0   0:00.02 kdevtmpfs
  24 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 netns
  25 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 inet_frag_wq
  26 root        20   0     0     0     0 S    0.0   0.0   0:00.00 kauditd
  27 root        20   0     0     0     0 S    0.0   0.0   0:00.01 khungtaskd
  28 root        20   0     0     0     0 S    0.0   0.0   0:00.00 oom_reaper
  29 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 writeback
  30 root        20   0     0     0     0 S    0.0   0.0   0:02.68 kcompactd0
  31 root        25   5     0     0     0 S    0.0   0.0   0:00.00 ksmd
  32 root        39  19     0     0     0 S    0.0   0.0   0:00.90 khugepaged
  52 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 kintegrityd
  53 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 kblockd
  54 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 blkcg_punt_bio
  55 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 tps_dev_wq
  56 root        0 -20     0     0     0 I    0.0   0.0   0:00.00 edac-poller

```

- kill: Terminate processes  
\$ kill 36513

- bg: Run processes in the background





## System Information:

1. uname: Print system information

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)~  
$ uname  
Linux
```

1. df: Display disk space usage

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)~  
$ uname  
Linux  
(kali@kali)~  
$ df  
Filesystem      1K-blocks    Used Available Use% Mounted on  
udev             972456         0   972456    0% /dev  
tmpfs            202952         936   202016    1% /run  
/dev/sda1      81000912 9998524 66841776   14% /  
tmpfs           1014760         0  1014760    0% /dev/shm  
tmpfs             5120         0     5120    0% /run/lock  
tmpfs           202952         72   202880    1% /run/user/1000  
(kali@kali)~  
$
```

1. free: Display memory usage

```
(kali@kali)~  
$ free  
              total        used        free      shared  buff/cache   available  
Mem:        2029520       593860       479212        36364       956448      1211564  
Swap:        998396         5156        993240  
(kali@kali)~  
$
```

1. uptime: Show system uptime

```
(kali@kali)~  
$ uptime  
08:00:37 up 3:44, 1 user, load average: 0.07, 0.11, 0.09
```

1. who: Display logged-in users



```
(kali@kali)-[~]
$ who
kali      tty7      2023-05-19 09:59 (:0)
```

1. w: Display logged-in users and their activities

```
(kali@kali)-[~]
$ w
08:00:44 up 3:44, 1 user, load average: 0.06, 0.11, 0.09
USER      TTY      FROM          LOGIN@      IDLE   JCPU   PCPU WHAT
kali      tty7      :0             Fri09       2days  2:34   0.69s xfce4-session
```

## Networking:

1. ifconfig: Configure network interfaces

```
kali@kali: ~
File Actions Edit View Help
(kali@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::a00:27ff:fe50:4c14 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:50:4c:14 txqueuelen 1000 (Ethernet)
    RX packets 18001 bytes 22948183 (21.8 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 4867 bytes 542000 (529.2 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 20 bytes 1000 (1000.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 20 bytes 1000 (1000.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

1. ping: Send ICMP echo requests to a network host

```
(kali@kali)-[~]
$ 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=117 time=85.4 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=117 time=45.4 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=117 time=87.6 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=117 time=70.3 ms
```

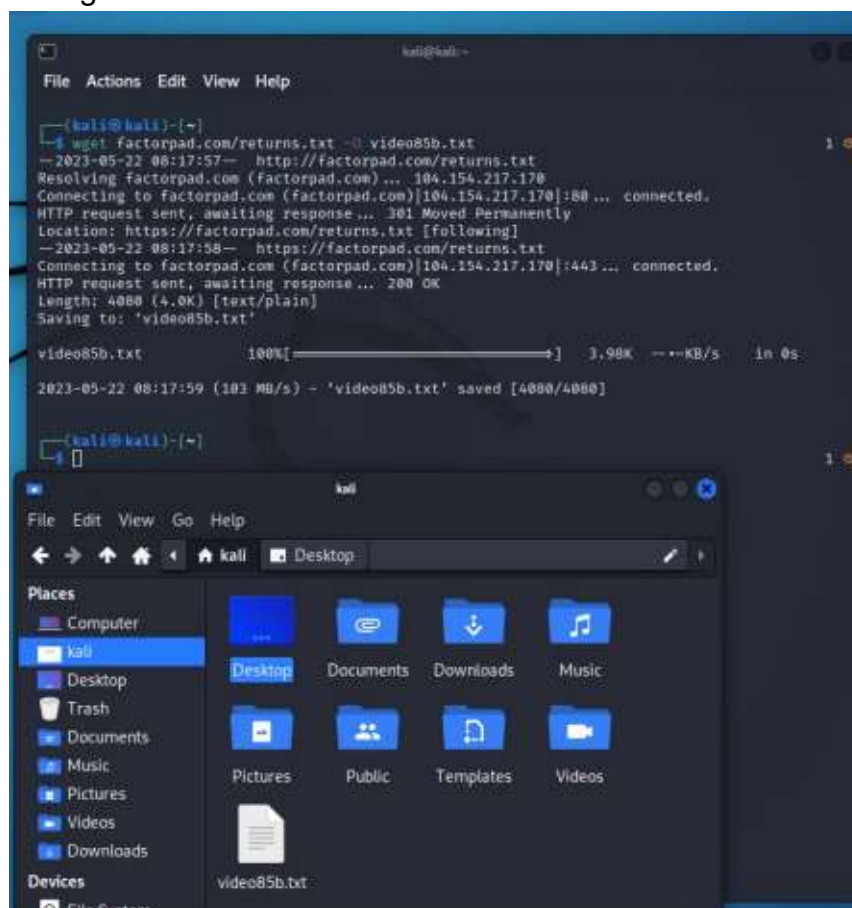
1. ssh: Securely connect to a remote system

```
(kali@kali)-[~]
$ ssh user@remote_host
```

1. scp: Securely copy files between systems

```
(kali@kali)-[~]
$ scp local_file user@remote_host:remote_directory
```

# 1. wget: Download files from the web



## System Administration:

1. sudo: Execute commands with superuser privileges

```
(kali@kali)-[~]
$ sudo apt install gedit
[sudo] password for kali:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  docbook-xml fonts-dejavu gedit-common gir1.2-gtksource-4 gir1.2-peas-1.0
  libgtksourceview-4-0 libgtksourceview-4-common libpeas-1.0-0 libpeas-common libyelp0
  sgml-base sgml-data xml-core yelp yelp-xsl
Suggested packages:
  docbook docbook-dsssl docbook-xsl docbook-defguide gedit-plugins sgml-base-doc perlsgml
  w3-recs opensp debhelper
The following NEW packages will be installed:
  docbook-xml fonts-dejavu gedit gedit-common gir1.2-gtksource-4 gir1.2-peas-1.0
  libgtksourceview-4-0 libgtksourceview-4-common libpeas-1.0-0 libpeas-common libyelp0
  sgml-base sgml-data xml-core yelp yelp-xsl
0 upgraded, 16 newly installed, 0 to remove and 377 not upgraded.
Need to get 4,705 kB of archives.
After this operation, 29.3 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

1. apt-get: Package management for Debian-based distributions

```
kali@kali: ~  
File Actions Edit View Help  
  
(kali@kali)-[~]  
$ sudo apt-get update  
Get:1 http://kali.download/kali kali-rolling InRelease [41.2 kB]  
Err:1 http://kali.download/kali kali-rolling InRelease  
  The following signatures were invalid: EXPKEYSIG ED444FF07D8D08F6 Kali Linux Repository <dev  
el@kali.org>  
Fetched 41.2 kB in 1s (28.7 kB/s)  
Reading package lists... Done  
W: An error occurred during the signature verification. The repository is not updated and the  
previous index files will be used. GPG error: http://kali.download/kali kali-rolling InRelease  
: The following signatures were invalid: EXPKEYSIG ED444FF07D8D08F6 Kali Linux Repository <dev  
el@kali.org>  
W: Failed to fetch http://http.kali.org/kali/dists/kali-rolling/InRelease The following signa  
tures were invalid: EXPKEYSIG ED444FF07D8D08F6 Kali Linux Repository <devel@kali.org>  
W: Some index files failed to download. They have been ignored, or old ones used instead.  
  
(kali@kali)-[~]  
$
```

## 1. yum: Package management for Red Hat-based distributions

```
sudo yum install httpd  
sudo yum remove httpd
```

## 1. systemctl: Manage system services

```

kali@kali: ~
File Actions Edit View Help

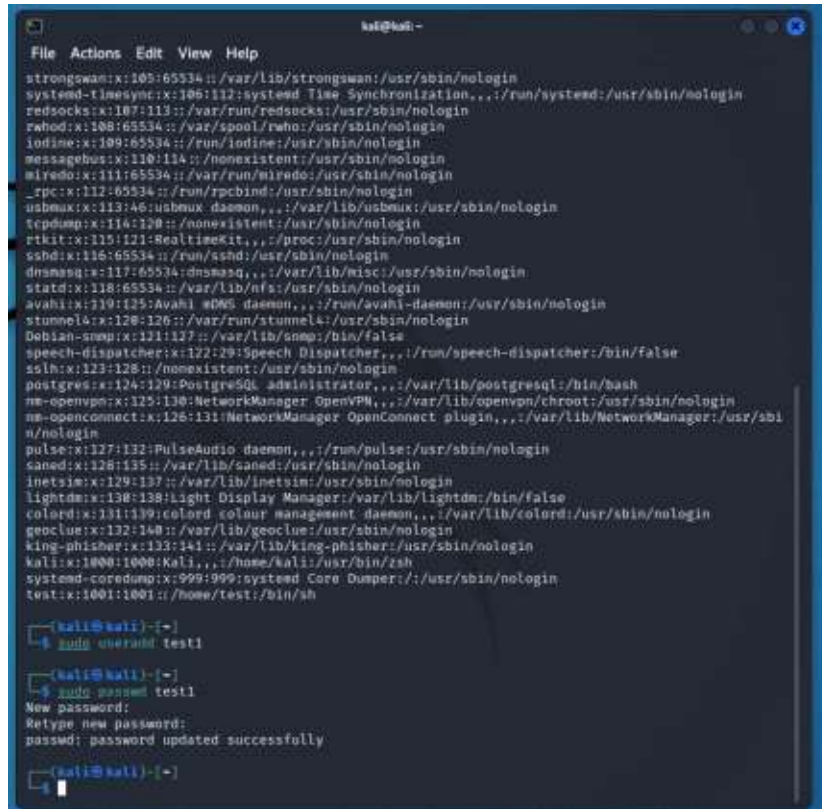
kali@kali:~$ sudo systemctl start firefox
1
Failed to start Firefox.service: Unit Firefox.service not found.

kali@kali:~$ sudo systemctl start apache2
5
kali@kali:~$ sudo systemctl status apache2
1
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; disabled; vendor preset: disabled)
   Active: active (running) since Sun 2023-05-28 04:01:57 EDT; 32s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 120089 ExecStart=/usr/sbin/apachectl start (code-exited, status=0/SUCCESS)
   Main PID: 120100 (apache2)
     Tasks: 6 (limit: 2279)
    Memory: 17.7M
       CPU: 115ms
   CGroup: /system.slice/apache2.service
           └─120100 /usr/sbin/apache2 -k start
             120102 /usr/sbin/apache2 -k start
             120103 /usr/sbin/apache2 -k start
             120104 /usr/sbin/apache2 -k start
             120105 /usr/sbin/apache2 -k start
             120106 /usr/sbin/apache2 -k start

May 28 04:01:57 kali systemd[1]: Starting The Apache HTTP Server ...
May 28 04:01:57 kali apachectl[120099]: AH00558: apache2: Could not reliably determine the se
May 28 04:01:57 kali systemd[1]: Started The Apache HTTP Server.
lines 1-38/28 (END)

```

## 1. useradd: Add a new user



```
File Actions Edit View Help
strongswan:x:105:65534::/var/lib/strongswan:/usr/sbin/nologin
systemd-timesync:x:106:112::systemd Time Synchronization,.,:/run/systemd:/usr/sbin/nologin
redsocks:x:107:113::/var/run/redsocks:/usr/sbin/nologin
rwho:x:108:65534::/var/spool/rwho:/usr/sbin/nologin
iodine:x:109:65534::/run/iodine:/usr/sbin/nologin
messagebus:x:110:114::/nonexistent:/usr/sbin/nologin
miredo:x:111:65534::/var/run/miredo:/usr/sbin/nologin
_rpc:x:112:65534::/run/rpcbind:/usr/sbin/nologin
usbmux:x:113:46:usbmux daemon,.,:/var/lib/usbmux:/usr/sbin/nologin
tcpdump:x:114:120::/nonexistent:/usr/sbin/nologin
rtkit:x:115:121:RealtimeKit,.,/proc:/usr/sbin/nologin
sshd:x:116:65534::/run/ssh:/usr/sbin/nologin
dnsmasq:x:117:65534:dnsmasq,.,:/var/lib/misc:/usr/sbin/nologin
statd:x:118:65534::/var/lib/nfs:/usr/sbin/nologin
avahi:x:119:125:Avahi mDNS daemon,.,:/run/avahi-daemon:/usr/sbin/nologin
stunnel4:x:120:126::/var/run/stunnel4:/usr/sbin/nologin
Debian-snmpp:x:121:127::/var/lib/snmpp:/bin/false
speech-dispatcher:x:122:29:Speech Dispatcher,.,/run/speech-dispatcher:/bin/false
sshd:x:123:128::/nonexistent:/usr/sbin/nologin
postgres:x:124:129:PostgreSQL administrator,.,:/var/lib/postgresql:/bin/bash
nm-openvpn:x:125:130:NetworkManager OpenVPN,.,:/var/lib/openvpn/chroot:/usr/sbin/nologin
nm-openconnect:x:126:131:NetworkManager OpenConnect plugin,.,:/var/lib/NetworkManager:/usr/sbin/nologin
pulse:x:127:132:PulseAudio daemon,.,/run/pulse:/usr/sbin/nologin
saned:x:128:135::/var/lib/saned:/usr/sbin/nologin
inetsim:x:129:137::/var/lib/inetsim:/usr/sbin/nologin
lightdm:x:130:138:Light Display Manager:/var/lib/lightdm:/bin/false
colord:x:131:139:colord colour management daemon,.,/var/lib/colord:/usr/sbin/nologin
geoclue:x:132:140::/var/lib/geoclue:/usr/sbin/nologin
king-phisher:x:133:141::/var/lib/king-phisher:/usr/sbin/nologin
kali:x:1000:1000:Kali,.,/home/kali:/usr/bin/zsh
systemd-coredump:x:999:999:systemd Core Dumper:./usr/sbin/nologin
test:x:1001:1001::/home/test:/bin/sh

(kali@kali)~$ useradd test1
Adding user `test1' to the system
Adding new group `test1' with GID 1001
Adding new user `test1' with UID 1001 and shell /bin/sh
(kali@kali)~$ passwd test1
New password:
Retype new password:
passwd: password updated successfully

(kali@kali)~$
```

## 1. passwd: Change user password

```
File Actions Edit View Help
kali@kali:~$ cat /etc/passwd
strongswan:x:100:65534::/var/lib/strongswan:/usr/sbin/nologin
systemd-timesync:x:106:112::/usr/lib/systemd:/usr/sbin/nologin
redis:x:107:112::/var/run/redis:/usr/sbin/nologin
rhdod:x:108:65536::/var/ssl:/usr/sbin/nologin
lndm:x:109:65536::/usr/lib/lndm:/usr/sbin/nologin
sssd:x:110:111::/nonexistent:/usr/sbin/nologin
nfsd:x:111:65534::/var/run/nfsd:/usr/sbin/nologin
rpc:x:112:65534::/run/rpcbind:/usr/sbin/nologin
usbmuxd:x:113:65536::/usr/lib/usbmuxd:/usr/sbin/nologin
tcpdump:x:114:120::/nonexistent:/usr/sbin/nologin
rtkit:x:115:121:RealtimeKit,,,/proc:/usr/sbin/nologin
smbd:x:120:65534::/run/smbd:/usr/sbin/nologin
dnsmasq:x:117:65534:dnsmasq,,,/var/lib/isc:/usr/sbin/nologin
xinetd:x:118:65534::/var/lib/xinetd:/usr/sbin/nologin
avahi:x:119:125:Avahi mDNS daemon,,,/run/avahi-daemon:/usr/sbin/nologin
xinetd:x:120:126::/var/run/xinetd:/usr/sbin/nologin
Debian-snp:x:121:127::/var/lib/snp:/bin/false
speech-dispatcher:x:122:129:speech_dispatcher,,,/run/speech-dispatcher:/bin/false
sshd:x:123:128::/nonexistent:/usr/sbin/nologin
postgresql:x:124:129:postgresql_administrator,,,/var/lib/postgresql:/bin/bash
nm-openvpn:x:125:130:NetworkManager OpenVPN,,,/var/lib/openvpn/chroni:/usr/sbin/nologin
nm-openconnect:x:126:131:NetworkManager OpenConnect plugin,,,/var/lib/NetworkManager:/usr/sbin/nologin
pulse:x:127:132:PulseAudio daemon,,,/run/pulse:/usr/sbin/nologin
xaned:x:128:133::/var/lib/xaned:/usr/sbin/nologin
inetd:x:129:137::/var/lib/inetd:/usr/sbin/nologin
lightdm:x:130:138:Light Display Manager,/var/lib/lightdm:/bin/false
colord:x:131:139:colord colour management daemon,,,/var/lib/colord:/usr/sbin/nologin
gssd:x:132:140::/var/lib/gssd:/usr/sbin/nologin
king-phisher:x:133:141::/var/lib/king-phisher:/usr/sbin/nologin
kali:x:1000:1000:kali,,,/home/kali:/usr/bin/sh
systemd-coredump:x:999:999:systemd Core Dumper:/usr/sbin/nologin
test:x:1001:1001::/home/test:/bin/sh

kali@kali:~$ sudo useradd test1
Adding user `test1'
Adding new password
Retype new password:
passwd: password updated successfully

kali@kali:~$
```

Submitted By Gagan Parashar 20BKT0075