## **KALI LINUX COMMAND LIST ASSIGNMENT**

NAME: MALLIDI VISWA TEJA REDDY

**REG.NO:** 20BCN7117

**CAMPUS: VITAP UNIVERSITY** 

#### **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.

# **File and Directory Operations:**

#### ls: List files and directories

# cd: Change directory

# pwd: Print working directory

```
kali@kali:~/Desktop

File Actions Edit View Help

(kali@kali)-[~]

besktop Documents Downloads Music Pictures Public Templates Videos

(kali@kali)-[~]

$ cd Desktop

(kali@kali)-[~/Desktop]

$ pwd

/home/kali/Desktop

(kali@kali)-[~/Desktop]

$ pwd

/home/kali/Desktop
```

mkdir: Make directory

```
(kali® kali)-[~]

pesktop Documents Downloads Music Pictures Public Templates Videos

(kali® kali)-[~]

$ cd Desktop

(kali® kali)-[~/Desktop]

$ pwd
/home/kali/Desktop

(kali® kali)-[~/Desktop]

$ mkdir SriRaj

(kali® kali)-[~/Desktop]

$ sriRaj

(kali® kali)-[~/Desktop]

$ "
```

touch: Create an empty file

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

(kali@kali)-[~/Desktop]
$ ls
CEH SriRaj

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

cp: Copy files and directories

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

(kali@ kali)-[~/Desktop]
$ ls
CEH CyberCourse SriRaj

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

mv: Move or rename files and directories

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

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

CEH SriRaj

(kali@ kali)-[~/Desktop]
$ cd SriRaj

(kali@ kali)-[~/Desktop/SriRaj]
$ ls

CyberCourse

(kali@ kali)-[~/Desktop/SriRaj]

$ "
```

rm: Remove files and directories

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

pesktop Documents Downloads Music Pictures Public Templates Videos

(kali@kali)-[~]

$ cd Desktop

(kali@kali)-[~/Desktop]

$ ls

CEH File SriRaj

(kali@kali)-[~/Desktop]

$ ls

CEH SriRaj

(kali@kali)-[~/Desktop]

$ ls

CEH SriRaj
```

find: Search for files and directories

## File Viewing and Editing:

cat: Concatenate and display file content

less: View file content with pagination

```
(kali® kali)-[~/Desktop]
$ less CEH

zsh: suspended less CEH

hi i am sriraj from course: Cyber Threat Intelligence & Hunting (SIEM Analyst with IBM Qradar)
CEH (END)
```

head: Display the beginning of a file

```
(kali@kali)-[~/Desktop]
$ head CEH
hi i am sriraj from course: Cyber Threat Intelligence & Hunting (SIEM Analyst with IBM Qradar)
```

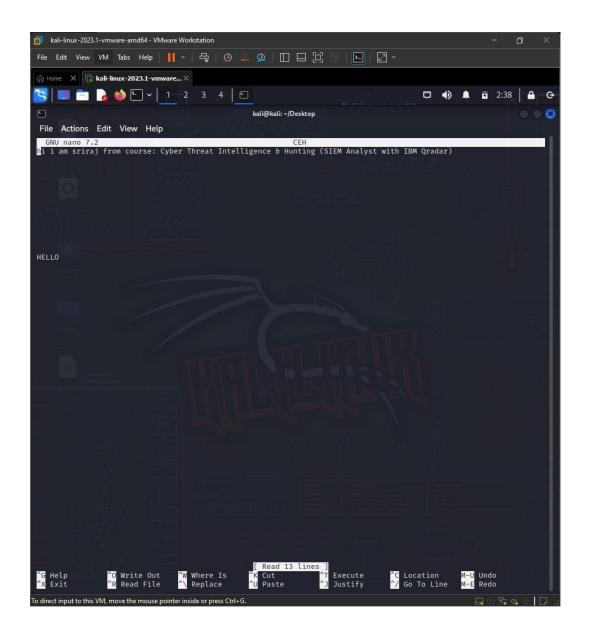
tail: Display the end of a file

```
(kali⊕ kali)-[~/Desktop]

$ tail CEH

HELLO
```

nano: Text editor for creating and editing files



vi/vim: Powerful text editor for experienced users

```
ckali@kali)-[~/Desktop]
zsh: suspended vi CEH

File Actions Edit View Help
ii i am sriraj from course: Cyber Threat Intelligence & Hunting (SIEM Analyst with IBM Qradar)
HELLO
```

#### **File Permissions:**

chmod: Change file permissions

```
chown: Change file owner
```

(kali@ kali)-[~/Desktop]
schown kali CEH

chgrp: Change file group

(kali@ kali)-[~/Desktop]
\$ chgrp kali CEH

# File Compression and Archiving:

tar: Archive files

```
(kali® kali)-[~]

Desktop Documents Downloads Fil.tar Music Pictures Public Templates Videos

(kali® kali)-[~]

$ cd Desktop

(kali® kali)-[~/Desktop]

$ tar -cf fil.tar CEH

(kali® kali)-[~/Desktop]

$ ls

CEH fil.tar SriRaj
```

### gzip: Compress files

```
(kali⊗ kali)-[~/Desktop]
$\frac{1}{3} \text{gzip 'fil.tar'}

(kali⊗ kali)-[~/Desktop]
$\frac{1}{3} \text{CEH fil.tar.gz SriRaj}

(kali⊗ kali)-[~/Desktop]
$\frac{1}{3} \text{Tesk top} \text{
```

### unzip: Extract files from a ZIP archive

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

$ unzip 'dark.zip'
Archive: dark.zip
replace hackerY? [y]es, [n]o, [A]ll, [N]one, [r]ename:
error: invalid response [{ENTER}]
replace hackerY? [y]es, [n]o, [A]ll, [N]one, [r]ename: hello
error: invalid response [hello]
replace hackerY? [y]es, [n]o, [A]ll, [N]one, [r]ename: n
replace karthik/knight? [y]es, [n]o, [A]ll, [N]one, [r]ename: n
```

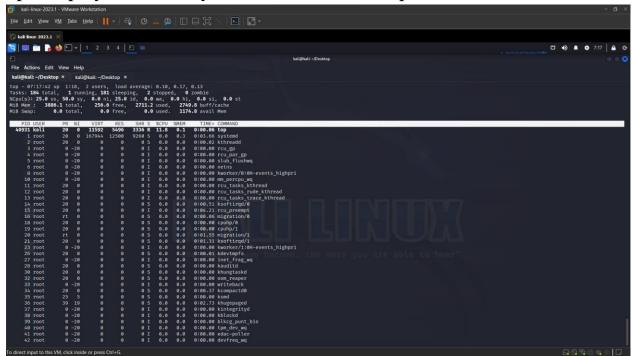
### **Process Management:**

#### ps: List running processes

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

ps
PID TTY
TIME CMD
6368 pts/0 00:00:13 zsh
14727 pts/0 00:00:00 less
17026 pts/0 00:00:00 vi
40652 pts/0 00:00:00 ps
```

### top: Display real-time system information and processes



### kill: Terminate processes

```
(kali⊗ kali)-[~/Desktop]

$ ps
PID TTY TIME CMD
6368 pts/0 00:00:15 zsh
14727 pts/0 00:00:00 less
17026 pts/0 00:00:00 vi
59577 pts/0 00:00:00 top
59724 pts/0 00:00:00 ps

(kali⊗ kali)-[~/Desktop]
$ kill 59577
```

### bg: Run processes in the background

## fg: Bring background processes to the foreground

```
[3] continued top
```

### **System Information:**

uname: Print system information

```
___(kali⊗kali)-[~/Desktop]
_$ uname
Linux
```

df: Display disk space usage

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

df
Filesystem 1K-blocks
                         Used Available Use% Mounted on
              1941744 0 1941744 0% /dev
udev
               397932 1168 396764 1% /run
tmpfs
              /dev/sr0
/dev/loop0
tmpfs
              1989660 1614576 375084 82% /
overlay
              1989660 0 1989660 0% /dev/shm
5120 0 5120 0% /run/lock
1989660 760 1988900 1% /tmp
397932 96 397836 1% /run/user/1000
tmpfs
tmpfs
tmpfs
tmpfs
```

free: Display memory usage

```
-(kali⊗kali)-[~/Desktop]
_$ free
              total
                          used
                                     free
                                              shared buff/cache
                                                                   available
Mem:
            3979320
                       2781232
                                    257384
                                              1635256
                                                         2817028
                                                                   1198088
Swap:
                 0
                             0
                                        0
```

uptime: Show system uptime

who: Display logged-in users

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

kali tty1 2023-05-22 06:00
kali tty7 2023-05-22 06:01 (:0)
```

#### w: Display logged-in users and their activities

```
      (kali⊕ kali)-[~/Desktop]

      $ w

      07:59:41 up 2:00, 2 users, load average: 0.04, 0.14, 0.08

      USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT

      kali tty1 - 06:00 1:59m 2.39s 2.31s -zsh

      kali tty7 :0 06:01 1:59m 1:25 0.95s xfce4-session
```

### **Networking:**

### ifconfig: Configure network interfaces

```
-(kali@kali)-[~/Desktop]
└$ ifconfig
eth0: flags=4163<UP, BROADCAST, RUNNING, MULTICAST> mtu 1500
       inet 192.168.113.128 netmask 255.255.255.0 broadcast 192.168.113.255
       inet6 fe80::1ce9:819f:70a2:90b prefixlen 64 scopeid 0×20<link>
       ether 00:0c:29:34:d3:bf txqueuelen 1000 (Ethernet)
       RX packets 972666 bytes 1462715467 (1.3 GiB)
       RX errors 0 dropped 0 overruns 0 frame 0
       TX packets 35336 bytes 2280261 (2.1 MiB)
       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 0×10<host>
       loop txqueuelen 1000 (Local Loopback)
       RX packets 4 bytes 240 (240.0 B)
       RX errors 0 dropped 0 overruns 0 frame 0
       TX packets 4 bytes 240 (240.0 B)
       TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

### ping: Send ICMP echo requests to a network host

```
-(kali⊕kali)-[~/Desktop]
 PING 1.1.1.1 (1.1.1.1) 56(84) bytes of data.
 64 bytes from 1.1.1.1: icmp_seq=1 ttl=128 time=36.6 ms
 64 bytes from 1.1.1.1: icmp_seq=2 ttl=128 time=36.3 ms
 64 bytes from 1.1.1.1: icmp_seq=3 ttl=128 time=37.0 ms
 64 bytes from 1.1.1.1: icmp_seq=4 ttl=128 time=38.8 ms
 64 bytes from 1.1.1.1: icmp_seq=5 ttl=128 time=35.8 ms
64 bytes from 1.1.1.1: icmp_seq=6 ttl=128 time=36.1 ms
64 bytes from 1.1.1.1: icmp_seq=7 ttl=128 time=35.8 ms
64 bytes from 1.1.1.1: icmp_seq=8 ttl=128 time=36.1 ms
64 bytes from 1.1.1.1: icmp_seq=9 ttl=128 time=37.6 ms
64 bytes from 1.1.1.1: icmp_seq=10 ttl=128 time=44.0 ms
64 bytes from 1.1.1.1: icmp_seq=11 ttl=128 time=35.5 ms
64 bytes from 1.1.1.1: icmp seq=12 ttl=128 time=35.5 ms
64 bytes from 1.1.1.1: icmp_seq=13 ttl=128 time=36.2 ms
 64 bytes from 1.1.1.1: icmp_seq=14 ttl=128 time=36.0 ms
 64 bytes from 1.1.1.1: icmp_seq=15 ttl=128 time=36.4 ms
 64 bytes from 1.1.1.1: icmp_seq=16 ttl=128 time=35.7 ms
 64 bytes from 1.1.1.1: icmp_seq=17 ttl=128 time=37.3 ms
64 bytes from 1.1.1.1: icmp seq=18 ttl=128 time=48.9 ms
64 bytes from 1.1.1.1: icmp_seq=19 ttl=128 time=45.8 ms
64 bytes from 1.1.1.1: icmp_seq=20 ttl=128 time=50.5 ms
64 bytes from 1.1.1.1: icmp_seq=21 ttl=128 time=38.4 ms
64 bytes from 1.1.1.1: icmp_seq=22 ttl=128 time=39.0 ms
q64 bytes from 1.1.1.1: icmp_seq=23 ttl=128 time=36.3 ms
64 bytes from 1.1.1.1: icmp_seq=24 ttl=128 time=37.1 ms
 64 bytes from 1.1.1.1: icmp_seq=25 ttl=128 time=38.1 ms
 64 bytes from 1.1.1.1: icmp seq=26 ttl=128 time=37.1 ms

    1.1.1.1 ping statistics -

26 packets transmitted, 26 received, 0% packet loss, time 25033ms
 rtt min/avg/max/mdev = 35.499/38.376/50.461/4.034 ms
   -(kali®kali)-[~/Desktop]
  -$
To direct input to this VM, click inside or press Ctrl+G.
```

ssh: Securely connect to a remote system

```
-(kali⊗kali)-[~/Desktop]
   └$ <u>sudo</u> service ssh start
     —(kali⊛kali)-[~/Desktop]
   _$
Try: sudo apt install <deb name>
 karna@karna-virtual-machine:-$ ssh@192.168.113.128
 ssh@192.168.113.128: command not found
 karna@karna-virtual-machine: $ ssh kali@192.168.113.128
The authenticity of host '192.168.113.128 (192.168.113.128)' can't be established. ED25519 key fingerprint is SHA256:wbBGuqwlwtD9xiaz+0paV+4XClsUd6yzD0XP/p5VrnA.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.113.128' (ED25519) to the list of known hosts.
kali@192.168.113.128's password:
Linux kali 6.1.0-kali5-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.12-1kali2 (2023-02-23) x86_64
 The programs included with the Kali GNU/Linux system are free software;
 the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Kali GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
 (kall@kall)-[~]
  - (kalt@kalt) - [~/Desktop]
 → ls
dark.zip fil.tar.gz hacker hackerY
  -(kali@kali) [~/Desktop]
```

#### scp: Securely copy files between systems

```
karna@karna-virtual-machine:~$ scp paper.txt kali@192.168.113.128:/~
kali@192.168.113.128's password:
paper.txt: No such file or directory
karna@karna-virtual-machine:~$ scp paper kali@192.168.113.128:/~
kali@192.168.113.128's password:
scp: /~: Permission denied
karna@karna-virtual-machine:~$
```

### wget: Download files from the web

```
(kali@ kali)-[~]
$ systemctl start ssh

(kali@ kali)-[~]
$ wget https://vitap.ac.in/wp-content/uploads/2021/07/lab1.jpg
--2023-05-22 09:33:16-- https://vitap.ac.in/imp-content/uploads/2021/07/lab1.jpg
Resolving vitap.ac.in (vitap.ac.in): ... 5.9.36.52
Connecting to vitap.ac.in (vitap.ac.in): 5.9.36.52 (superior to vitap.ac.in): 15.9.36.52 (superior to vitap.ac.in): 1
```

### **System Administration:**

sudo: Execute commands with superuser privileges

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

$ sudo su

[root@ kali)-[/home/kali]
```

# apt-get: Package management for Debian-based distributions

```
(kali⊗kali)-[~/Desktop]

$\sudo apt-get update

Get:1 file:/run/live/medium kali-last-snapshot InRelease

Ign:1 file:/run/live/medium kali-last-snapshot InRelease

Get:2 file:/run/live/medium kali-last-snapshot Release [7,354 B]

Get:2 file:/run/live/medium kali-last-snapshot Release [7,354 B]

Get:3 file:/run/live/medium kali-last-snapshot Release.gpg

Ign:3 file:/run/live/medium kali-last-snapshot Release.gpg

Get:4 http://kali.download/kali kali-rolling InRelease [41.2 kB]

Get:5 http://kali.download/kali kali-rolling/non-free Sources [130 kB]

Get:6 http://kali.download/kali kali-rolling/main Sources [15.6 MB]

Get:7 http://kali.download/kali kali-rolling/main amd64 Packages [19.3 MB]
```

yum: Package management for Red Hat-based distributions systemetl: Manage system services

```
—(kali⊗kali)-[~/Desktop]
-$ systemctl status
kali
 State: running
  Units: 271 loaded (incl. loaded aliases)
 Jobs: 0 queued
Failed: 0 units
Since: Mon 2023-05-22 05:59:33 UTC; 2h 26min ago
systemd: 252.5-2
             −init.scope
└-1 /sbin/init components splash noeject
                 -ModemManager.service
└─1774 /usr/sbin/ModemManager
                 -NetworkManager.service
                 -colord.service
L2210 /usr/libexec/colord
                 -cron.service
L1753 /usr/sbin/cron -f
                 -dbus.service
└-1754 /usr/b
                 -haveged.service
-550 /usr/sbin/haveged --Foreground --verbose=1
                 -lightdm.service
                 -1785 /usr/sbin/lightdm
-1801 /usr/lib/xorg/Xorg :0 -seat seat0 -auth /var/run/lightdm/root/:0 -nolisten tcp vt7 -novtswitch
                 open-vm-tools.service
                 -polkit.service
└-1757 /usr/lib
                -rtkit-daemon.service
L1907 /usr/libexec/rtkit-daemon
                 -run-vmblock\x2dfuse.mount
                 -ssh.service
L-71455 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"
                 -systemd-journald.service
                 -systemd-logind.service
```

crontab: Schedule recurring tasks

```
(kali⊗ kali)-[~/smart]
$ crontab -e
no crontab for kali - using an empty one

Select an editor. To change later, run 'select-editor'.
1. /bin/nano ← easiest
2. /usr/bin/vim.basic
3. /usr/bin/vim.tiny

Choose 1-3 [1]: 1
No modification made
```

```
kali@kali:~/smart ×

GNU nano 7.2

dH Edit this file to introduce tasks to be run by cron.

# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').

# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.

# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).

# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
# For more information see the manual pages of crontab(5) and cron(8)
# # For more information see the manual pages of crontab(5) and cron(8)
# m h dom mon dow command
```

#### useradd: Add a new user

```
(kali⊗ kali)-[~/Desktop]

$\second{suseradd} -D

GROUP=100

HOME=/home
INACTIVE=-1

EXPIRE=
SHELL=/bin/sh
SKEL=/etc/skel

CREATE_MAIL_SPOOL=no
LOG_INIT=yes
```

Ensure that you provide the correct command(s) used to accomplish each task. Write your answers below each task.

Once you have completed the assessment, review your answers and verify that the output or results are correct.

Make this in doucement format and send them with images