KALI LINUX COMMAND LIST ASSIGNMENT

NAME: PRANAV DATT

REG.NO: 20BCE2722

CAMPUS: VIT VELLORE UNIVERSITY

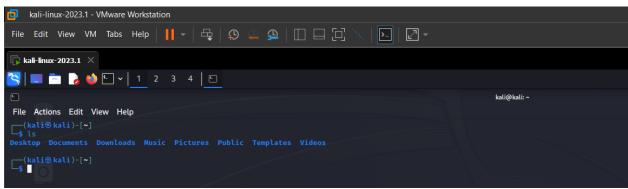
Instructions: -

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

mkdir: Make directory

touch: Create an empty file

```
(kali⊕ kali)-[~/Desktop]

$\frac{(kali⊕ kali)-[~/Desktop]}{\$\limes\}\
CEH SriRaj

(kali⊕ kali)-[~/Desktop]

$\frac{(kali⊕ kali)-[~/Desktop]}{\$\frac{1}{3}}
```

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

find: Search for files and directories

File Viewing and Editing:

cat: Concatenate and display file content

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

$\frac{\text{cet}}{\text{cat CEH}}$ hi i am sriraj from course: Cyber Threat Intelligence δ Hunting (SIEM Analyst with IBM Qradar)

$\frac{(kali@ kali)-[~/Desktop]}{\text{cat CEH}}$
```

less: View file content with pagination

```
| (kali@kali)-[~/Desktop]
| $ less CEH
| zsh: suspended less CEH

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

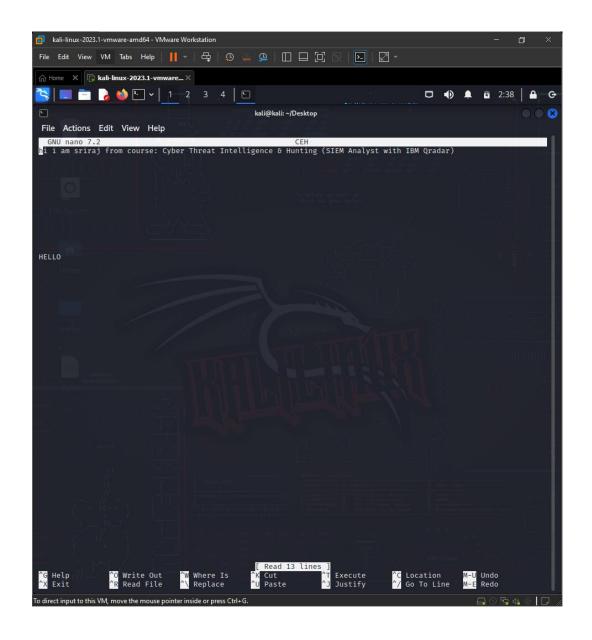
head: Display the beginning of a file

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

tail: Display the end of a file



nano: Text editor for creating and editing files



vi/vim: Powerful text editor for experienced users

```
(kali⊕ kali)-[~/Desktop]

zsh: suspended vi CEH

File Actions Edit View Help

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

HELLO
```

File Permissions:

chmod: Change file permissions

```
___(kali⊛ kali)-[~/Desktop]

$ chmod +x+r CEH
```

chown: Change file owner

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

chgrp: Change file group

```
(kali⊕ kali)-[~/Desktop]
$ chgrp kali CEH
```

File Compression and Archiving:

tar: Archive files

```
| (kali⊕ kali)-[~]
| S | Desktop Documents Downloads fil.tar Music Pictures Public Templates Videos
| (kali⊕ kali)-[~]
| S | cd Desktop
| (kali⊕ kali)-[~/Desktop]
| S | tar -cf fil.tar CEH
| (kali⊕ kali)-[~/Desktop]
| S | CEH fil.tar SriRaj
```

gzip: Compress files

```
(kali⊕ kali)-[~/Desktop]
$ gzip 'fil.tar'

(kali⊕ kali)-[~/Desktop]
$ ls
CEH fil.tar.gz SriRaj

(kali⊕ kali)-[~/Desktop]
$ □
```

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

```
(kali⊕ kali)-[~/Desktop]

$\frac{1}{5} fg
$
[3] continued top
```

System Information:

uname: Print system information

```
___(kali⊗ kali)-[~/Desktop]

$\text{uname}$
Linux
```

df: Display disk space usage

```
—(kali⊗kali)-[~/Desktop]
_$ df
Filesystem
           1K-blocks
                        Used Available Use% Mounted on
             1941744 0 1941744 0% /dev
397932 1168 396764 1% /run
udev
tmpfs
             /dev/sr0
/dev/loop0
tmpfs
overlay
             1989660 0 1989660 0% /dev/shm
5120 0 5120 0% /run/lock
1989660 760 1988900 1% /tmp
tmpfs
tmpfs
tmpfs
                       96 397836 1% /run/user/1000
               397932
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]

    $ who

    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
        TTY
                                 LOGINO IDLE JCPU PCPU WHAT
                 FROM
                                         1:59m 2.39s 2.31s -zsh
kali
        tty1
                                 06:00
kali
        tty7
                 :0
                                 06:01
                                         1:59m 1:25
                                                       0.95s xfce4-session
```

Networking:

ifconfig: Configure network interfaces

```
-(kali@kali)-[~/Desktop]
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
        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
 ^c
 — 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]
$ sudo 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.
 cd Desktop
 (kalt@kalt) - [~/Desktop]
           fil.tar.gz hacker hackerY
 (kall@kall)-[~/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

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

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

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

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

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

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

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

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

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

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

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

yum: Package management for Red Hat-based distributions

systemctl: Manage system services

```
-(kali⊗kali)-[~/Desktop]
-$ systemctl status
 kali
 State: running
Units: 271 loaded (incl. loaded aliases)
Since: Mon 2023-05-22 05:59:33 UTC; 2h 26min ago systemd: 252.5-2
CGroup: /
              ModemManager.service
└1774 /usr/sbin/ModemManager
               -NetworkManager.service
               └─1762 /usr/sbin/NetworkManager --no-daemon
               -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
              -rtkit-daemon.service
└-1907 /usr/libexec/rtkit-daemon
               -run-vmblock\x2dfuse.mount
               -ssh.service

-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 × kali@kali:~ ×

GNU nano 7.2

d# 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:

# at 5 a.m every week with:

# To 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]

$\seradd -D$

GROUP=100

HOME=/home

INACTIVE=-1

EXPIRE=

SHELL=/bin/sh

SKEL=/etc/skel

CREATE_MAIL_SPOOL=no

LOG_INIT=yes
```

```
(kali@ kali)-[~]
$ passwd
Changing password for kali.
Current password:
New password:
Retype new password:
passwd: password updated successfully
```

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