Assessment-1

Title: Linux Command List Assessment

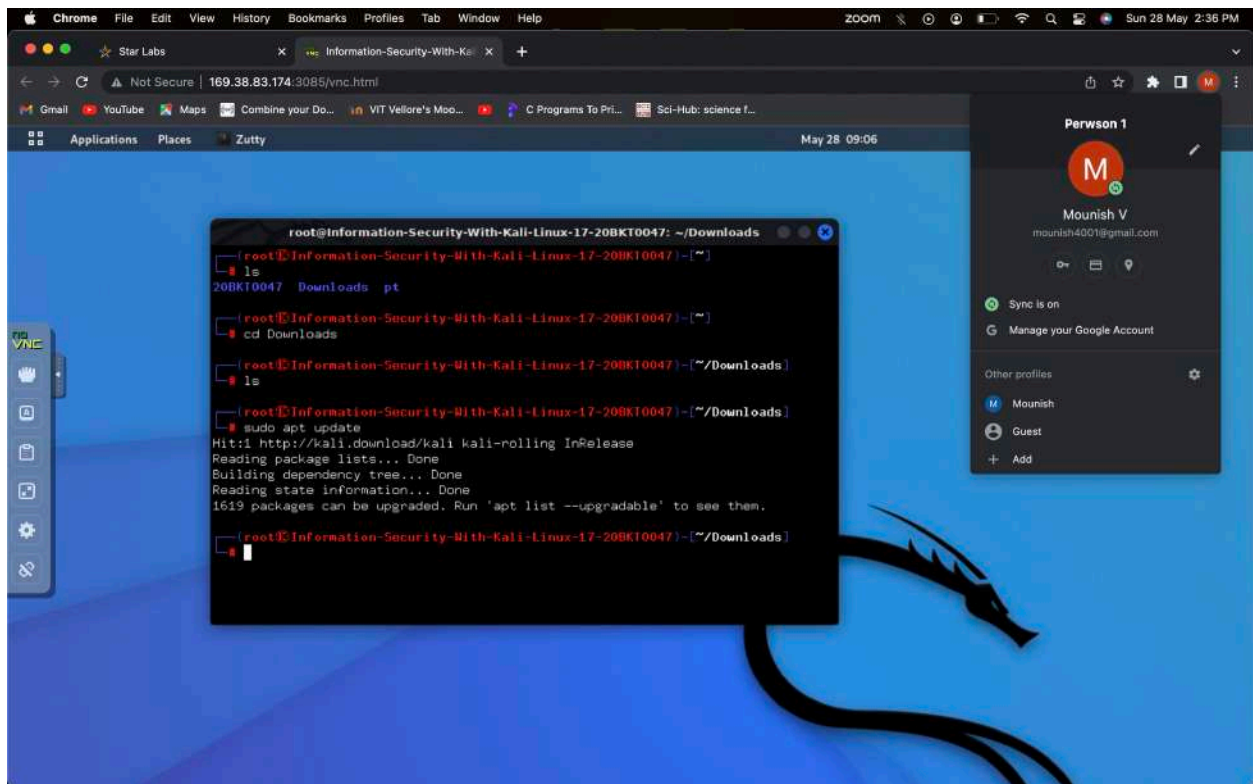
Name: B Venkata Mounish Reddy
Reg No: 20BDS0149
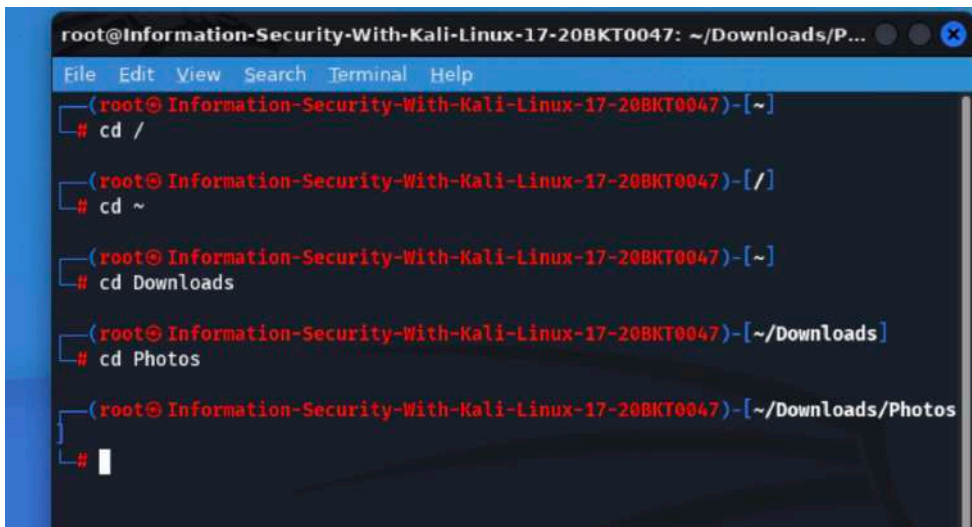**Campus: VIT Vellore**

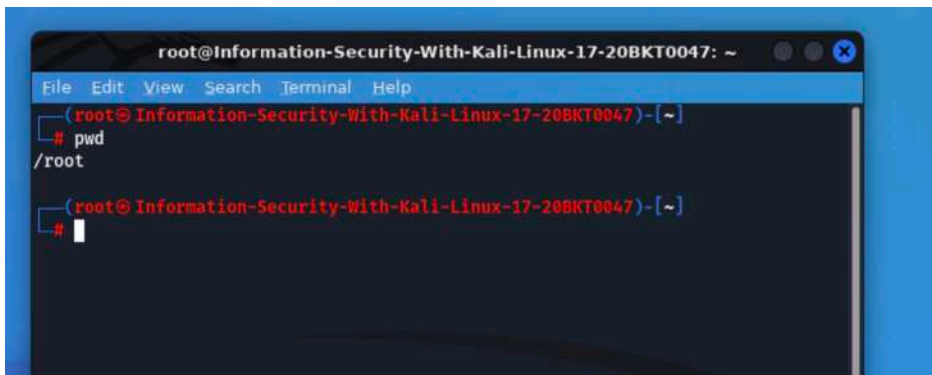## File and Directory Operations:

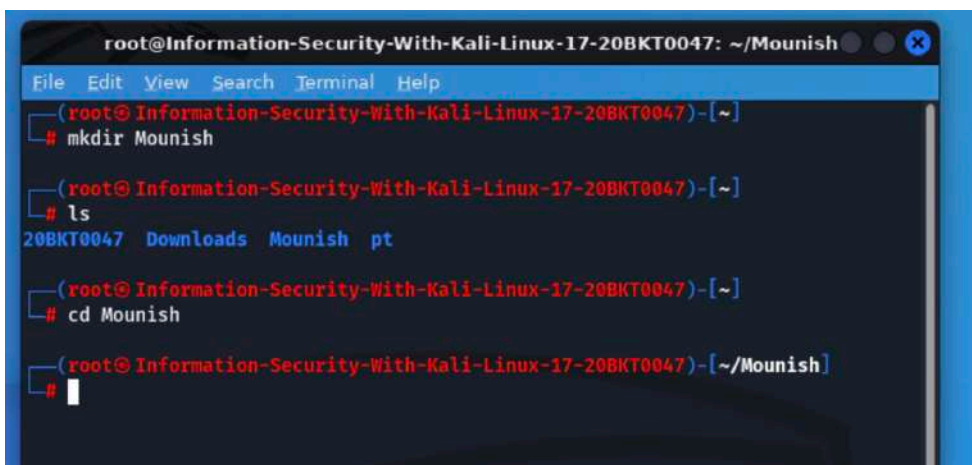ls: List files and directories

cd: Change directory

pwd: Print working directory

mkdir: Make directory

touch: Create an empty file

cp: Copy files and directories
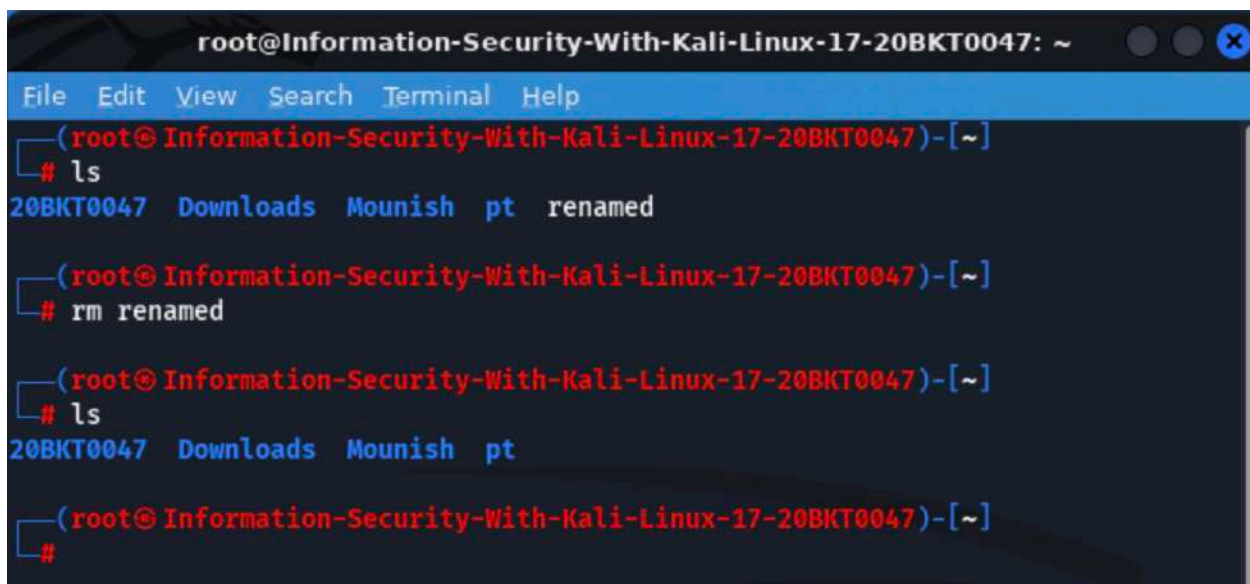
mv: Move or rename files and directories

rm: Remove files and directories

find: Search for files and directories

File Viewing and Editing:

cat: Concatenate and display file content

less: View file content with pagination
head: Display the beginning of a file


```
┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
└─# cd Movies

┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads/Movies]
└─# ls
text.txt

┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads/Movies]
└─# cat text.txt
hi this is Mounish, i'm from Bangalore. $ less

┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads/Movies]
└─# head text.txt
hi this is Mounish, i'm from Bangalore. $ less

┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads/Movies]
└─#
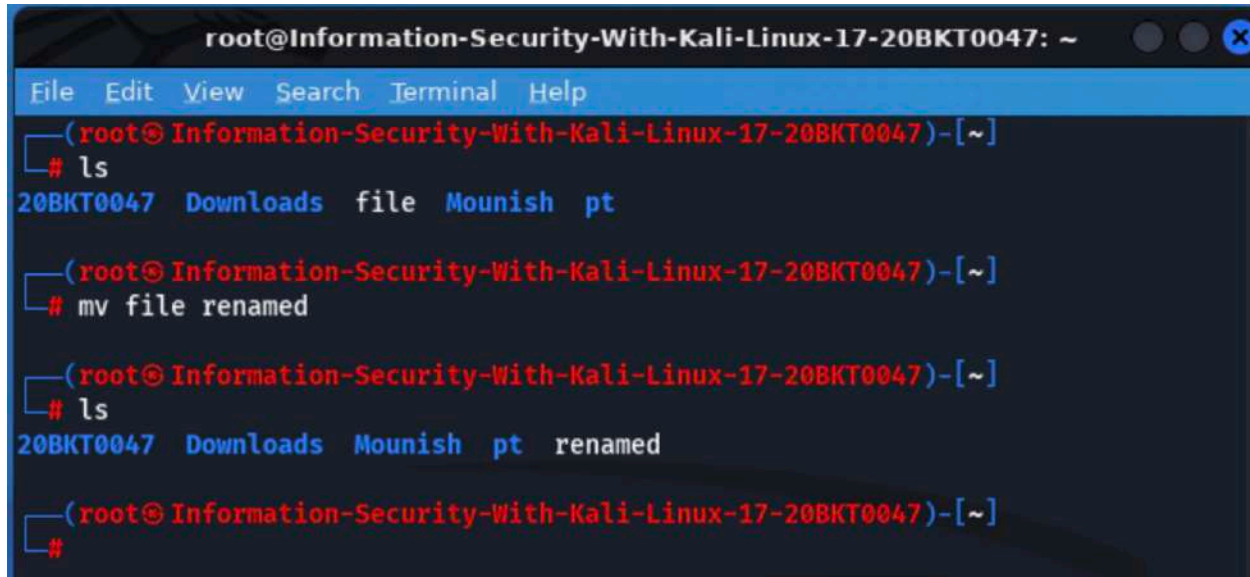```

tail: Display the end of a file



```
root@Information-Security-With-Kali-Linux-17-20BKT0047: ~/Downloads/M...

File  Edit  View  Search  Terminal  Help
┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# cd Downloads

┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
└─# cd Movies

┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads/Movies]
└─# ls
text.txt

┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads/Movies]
└─# tail text.txt
hi this is Mounish, i'm from Bangalore. $ less
```

nano: Text editor for creating and editing files


```
root@Information-Security-With-Kali-Linux-17-20BKT0047: ~/Downloads/M...

File  Edit  View  Search  Terminal  Help

  GNU nano 7.2                              text.txt *
hi this is Mounish, i'm from Bangalore. updated now using nano



^G Help         ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location
^X Exit         ^R Read File  ^\ Replace    ^U Paste      ^J Justify    ^/ Go To Line
```



```
File  Edit  View  Search  Terminal  Help
┌──(root㉿ Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# cd Downloads

┌──(root㉿ Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
└─# cd Movies

┌──(root㉿ Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads/Movies
]
└─# nano text.txt
```

vi/vim: Powerful text editor for experienced users

File Permissions:

chmod: Change file permissions

chown: Change file owner

chgrp: Change file group


```
File  Edit  View  Search  Terminal  Help
  ┌──(root⊛ Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
  └─# cd Downloads

  ┌──(root⊛ Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
  └─# addgroup sample
Adding group `sample' (GID 1000) ...
Done.

  ┌──(root⊛ Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
  └─# chgroup 1001 new
Command 'chgroup' not found, did you mean:
  command 'c4group' from deb openclonk
Try: apt install <deb name>

  ┌──(root⊛ Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
  └─# sudo su
  ┌──(root⊛ Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
  └─# addgroup sample
addgroup: The group `sample' already exists.

  ┌──(root⊛ Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
  └─# chgroup 1001 new
```
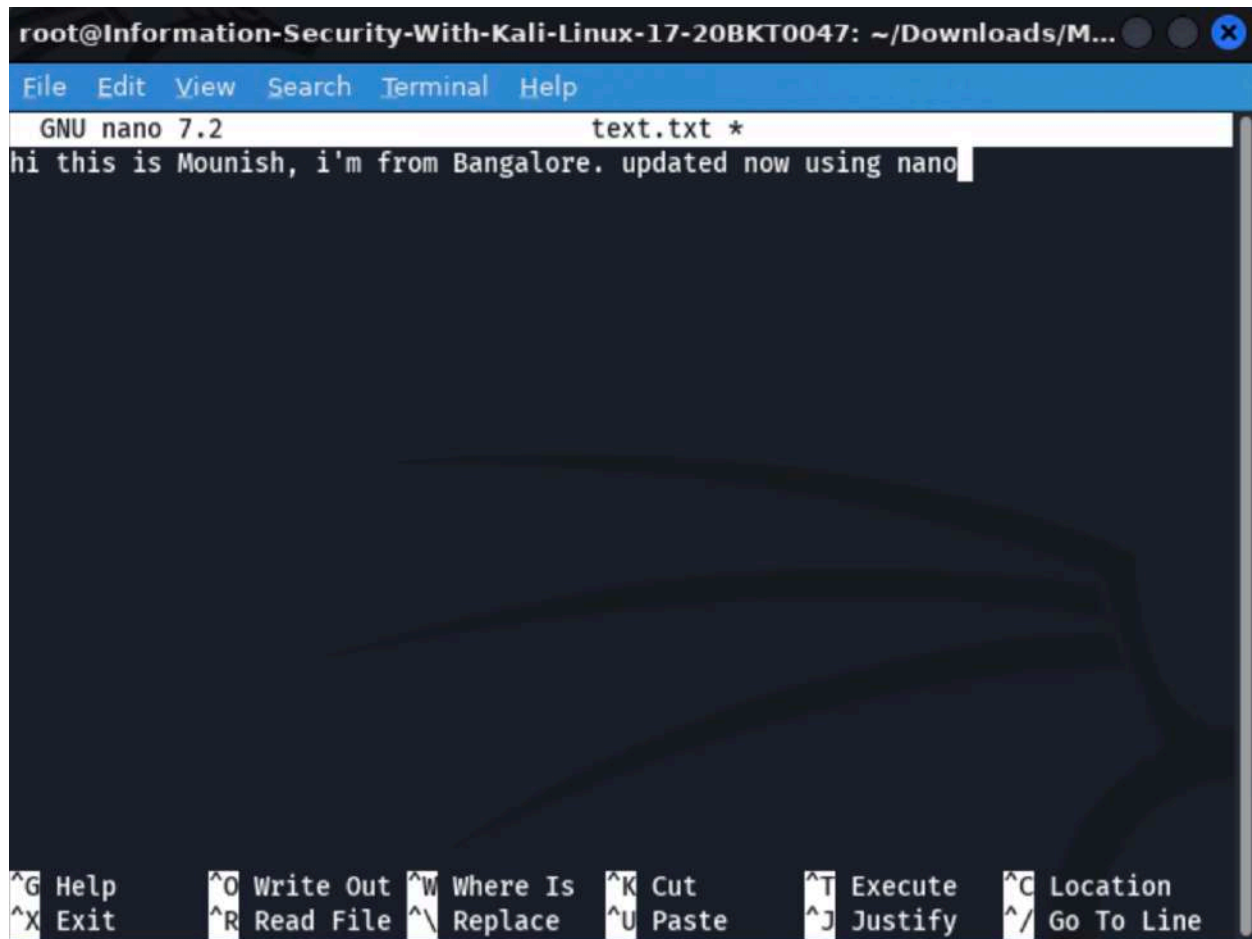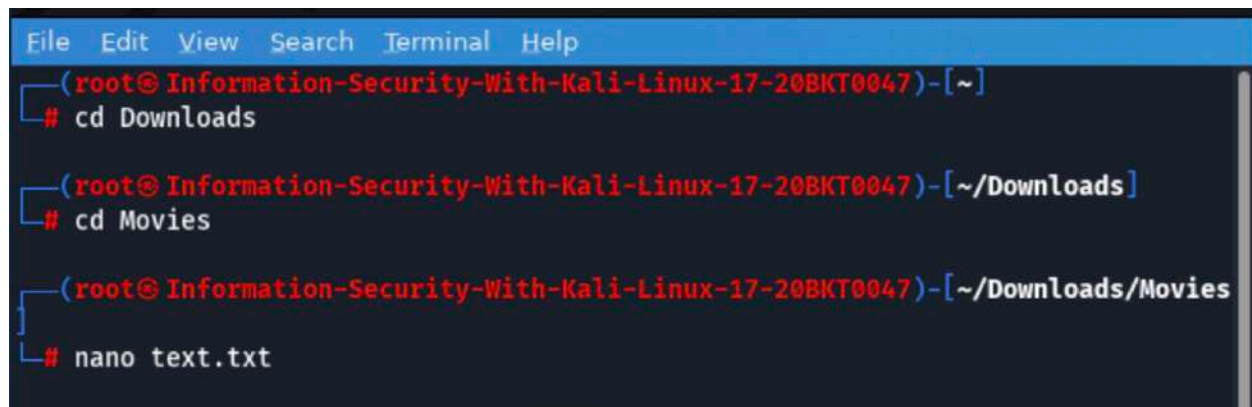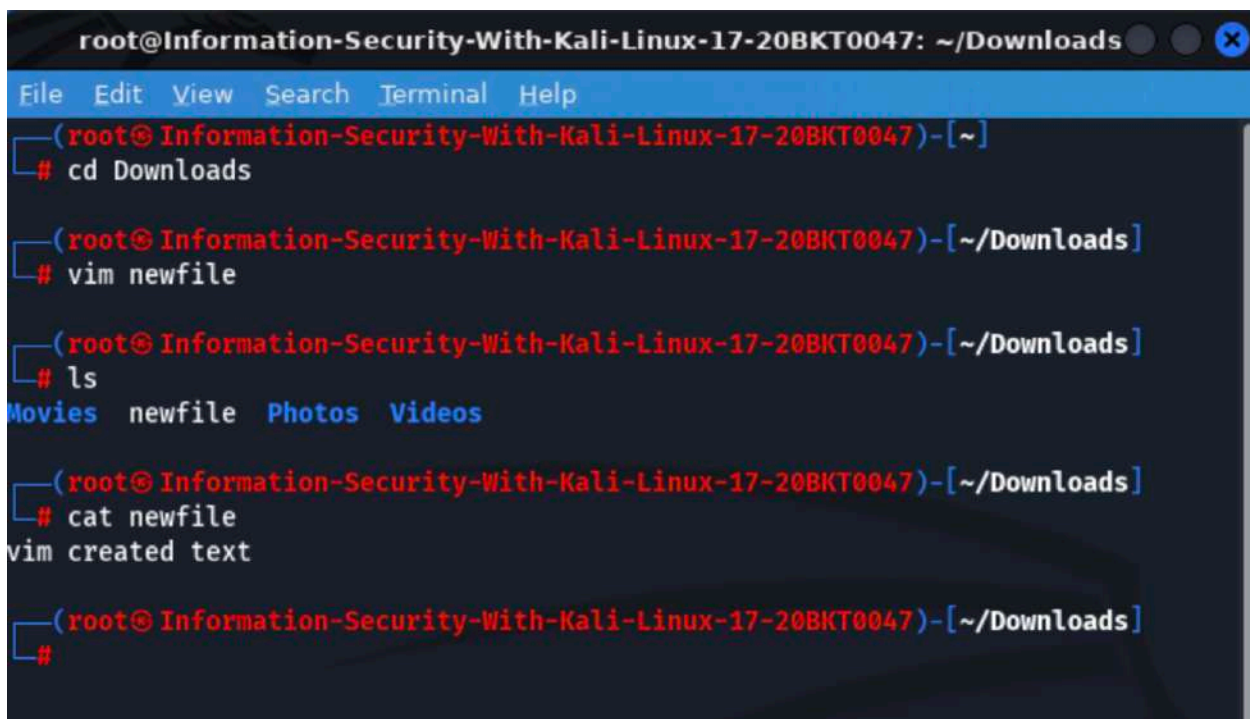
File Compression and Archiving:

tar: Archive files

gzip: Compress files

unzip: Extract files from a ZIP archive

Process Management:

ps: List running processes

top: Display real-time system information and processes

```
File  Edit  View  Search  Terminal  Help
top - 10:01:06 up  2:38,  0 users,  load average: 0.16, 0.13, 0.17
Tasks:  74 total,  1 running,  73 sleeping,  0 stopped,  0 zombie
%Cpu(s):  2.7 us,  0.0 sy,  0.0 ni, 97.3 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem :  3814.7 total,  2701.4 free,  642.6 used,  470.7 buff/cache
MiB Swap:  0.0 total,  0.0 free,  0.0 used.  3172.1 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM    TIME+ COMMAND
  327 root      20   0  157272  50112   8336 S   1.3   1.3  1:03.06 nessusd
10636 root      20   0 3335728 323192  99120 S   0.7   8.3  0:26.14 gnome-s+
10632 root      20   0  274512  89572  44356 S   0.3   2.3  0:08.02 Xtigerv+
12346 root      20   0  698644  38664  27204 S   0.3   1.0  0:00.27 gnome-t+
    1 root      20   0  168676  10460   6168 S   0.0   0.3  0:01.02 systemd
   75 root      20   0   33144  12360  10996 S   0.0   0.3  0:03.45 systemd+
   94 root      20   0   23496   4600   2856 S   0.0   0.1  0:00.07 systemd+
  111 root      20   0    8252   4232   1100 S   0.0   0.1  0:00.40 haveged
  124 root      20   0  236844   4760   3888 S   0.0   0.1  0:00.26 account+
  125 root      20   0    6600   1628   1384 S   0.0   0.0  0:00.04 cron
  126 message+  20   0   10848   4820   2572 S   0.0   0.1  0:01.77 dbus-da+
  131 polkitd   20   0  240372   7968   4572 S   0.0   0.2  0:00.10 polkitd
  132 syslog    20   0  156496   3116   2532 S   0.0   0.1  0:00.27 rsyslogd
  133 root      20   0   16880   5988   4912 S   0.0   0.2  0:00.10 systemd+
  134 root      20   0    6916   2132   1828 S   0.0   0.1  0:00.77 bash
  141 root      20   0  258092  11828   9180 S   0.0   0.3  0:00.16 Network+
  232 root      20   0    5860   2588   1752 S   0.0   0.1  0:00.01 dhclient
```

kill: Terminate processes

```
root@Information-Security-With-Kali-Linux-17-20BKT0047: ~

File  Edit  View  Search  Terminal  Help
┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# kill
kill: usage: kill [-s sigspec | -n signum | -sigspec] pid | jobspec ... or kill
-l [sigspec]

┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# kill -l
 1) SIGHUP        2) SIGINT        3) SIGQUIT       4) SIGILL        5) SIGTRAP
 6) SIGABRT       7) SIGBUS        8) SIGFPE        9) SIGKILL      10) SIGUSR1
11) SIGSEGV      12) SIGUSR2      13) SIGPIPE      14) SIGALRM      15) SIGTERM
16) SIGSTKFLT    17) SIGCHLD      18) SIGCONT      19) SIGSTOP      20) SIGTSTP
21) SIGTTIN      22) SIGTTOU      23) SIGURG       24) SIGXCPU      25) SIGXFSZ
26) SIGVTALRM    27) SIGPROF      28) SIGWINCH     29) SIGIO        30) SIGPWR
31) SIGSYS       34) SIGRTMIN     35) SIGRTMIN+1  36) SIGRTMIN+2   37) SIGRTMIN+3
38) SIGRTMIN+4   39) SIGRTMIN+5   40) SIGRTMIN+6  41) SIGRTMIN+7   42) SIGRTMIN+8
43) SIGRTMIN+9   44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9  56) SIGRTMAX-8   57) SIGRTMAX-7
58) SIGRTMAX-6  59) SIGRTMAX-5  60) SIGRTMAX-4  61) SIGRTMAX-3   62) SIGRTMAX-2
63) SIGRTMAX-1  64) SIGRTMAX

┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─#
```

bg: Run processes in the background
fg: Bring background processes to the foreground

```
root@Information-Security-With-Kali-Linux-17-20BKT0047: ~

File  Edit  View  Search  Terminal  Help
┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# bg
bash: bg: current: no such job

┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# jobs

┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# fg
bash: fg: current: no such job

┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# jobs

┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─#
```

System Information:

uname: Print system information
df: Display disk space usage

free: Display memory usage
uptime: Show system uptime
who: Display logged-in users
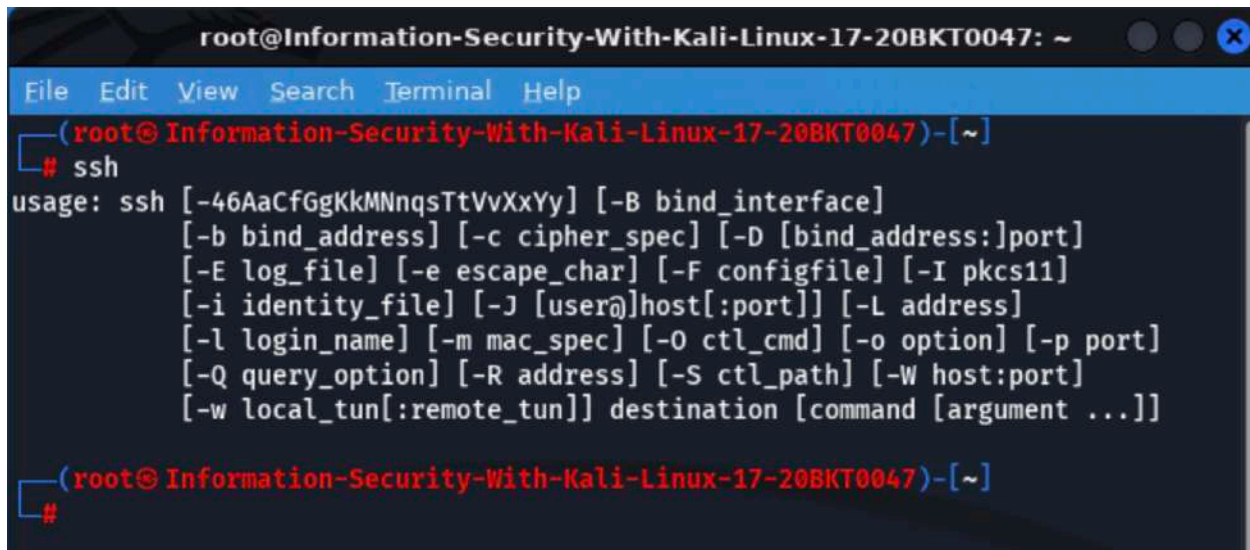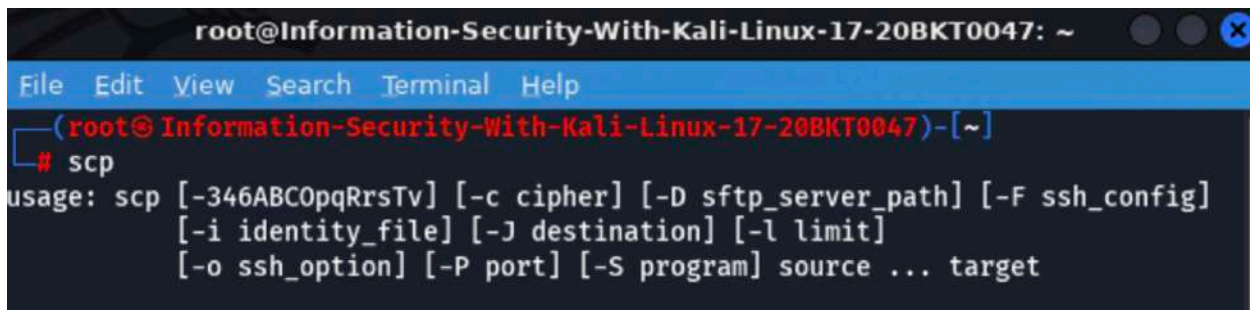w: Display logged-in users and their activities


```
root@Information-Security-With-Kali-Linux-17-20BKT0047: ~

File  Edit  View  Search  Terminal  Help
┌──(root㊀Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# free
              total        used        free      shared  buff/cache   available
Mem:        3906248      657260     2766840       11284      482148     3248988
Swap:             0           0           0

┌──(root㊀Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# uptime
 10:05:03 up  2:42,  0 users,  load average: 0.04, 0.09, 0.15

┌──(root㊀Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# who

┌──(root㊀Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# w
 10:05:10 up  2:42,  0 users,  load average: 0.04, 0.09, 0.15
USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT

┌──(root㊀Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# 
```

Networking:

ifconfig: Configure network interfaces

ping: Send ICMP echo requests to a network host

ssh: Securely connect to a remote system

scp: Securely copy files between systems

wget: Download files from the web

System Administration:

sudo: Execute commands with superuser privileges

apt-get: Package management for Debian-based distributions

yum: Package management for Red Hat-based distributions

systemctl: Manage system services

crontab: Schedule recurring tasks

```
┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# crontab -i
crontab: usage error: file name must be specified for replace
usage:  crontab [-u user] file
        crontab [ -u user ] [ -i ] { -e | -l | -r }
                (default operation is replace, per 1003.2)
        -e      (edit user's crontab)
        -l      (list user's crontab)
        -r      (delete user's crontab)
        -i      (prompt before deleting user's crontab)

┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# cd Downloads

┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
└─# crontab -i newfile
"newfile":0: bad minute
errors in crontab file, can't install.

┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~/Downloads]
└─#
```

useradd: Add a new user

```
root@Information-Security-With-Kali-Linux-17-20BKT0047: ~
File  Edit  View  Search  Terminal  Help
┌──(root☉Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# useradd
Usage: useradd [options] LOGIN
       useradd -D
       useradd -D [options]

Options:
      --badname                 do not check for bad names
  -b, --base-dir BASE_DIR       base directory for the home directory of the
                                new account
      --btrfs-subvolume-home    use BTRFS subvolume for home directory
  -c, --comment COMMENT         GECOS field of the new account
  -d, --home-dir HOME_DIR       home directory of the new account
  -D, --defaults                print or change default useradd configuration
  -e, --expiredate EXPIRE_DATE  expiration date of the new account
  -f, --inactive INACTIVE       password inactivity period of the new account
  -F, --add-subids-for-system   add entries to sub[ud]id even when adding a syst
em user
  -g, --gid GROUP               name or ID of the primary group of the new
                                account
  -G, --groups GROUPS           list of supplementary groups of the new
                                account
  -h, --help                    display this help message and exit
  -k, --skel SKEL_DIR           use this alternative skeleton directory
```

passwd: Change user password


```
┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# passwd
New password:
Retype new password:
passwd: password updated successfully
```



```
root@Information-Security-With-Kali-Linux-17-20BKT0047: ~

File  Edit  View  Search  Terminal  Help

┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# adduser new
Adding user `new' ...
Adding new group `new' (1001) ...
Adding new user `new' (1001) with group `new (1001)' ...
Creating home directory `/home/new' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for new
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n]
Adding new user `new' to supplemental / extra groups `users' ...
Adding user `new' to group `users' ...
```



```
┌──(root💀Information-Security-With-Kali-Linux-17-20BKT0047)-[~]
└─# passwd new
New password:
Retype new password:
passwd: password updated successfully
```