

Title: Linux Command List Assessment

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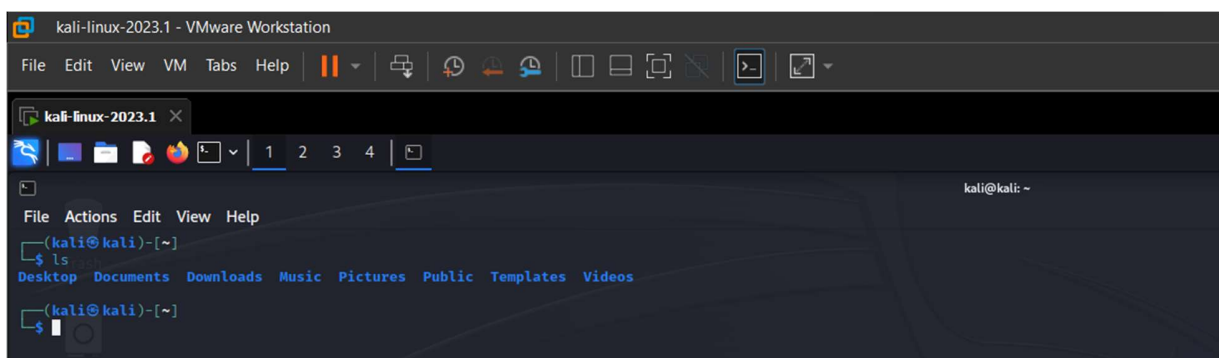
Instructions: -

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.

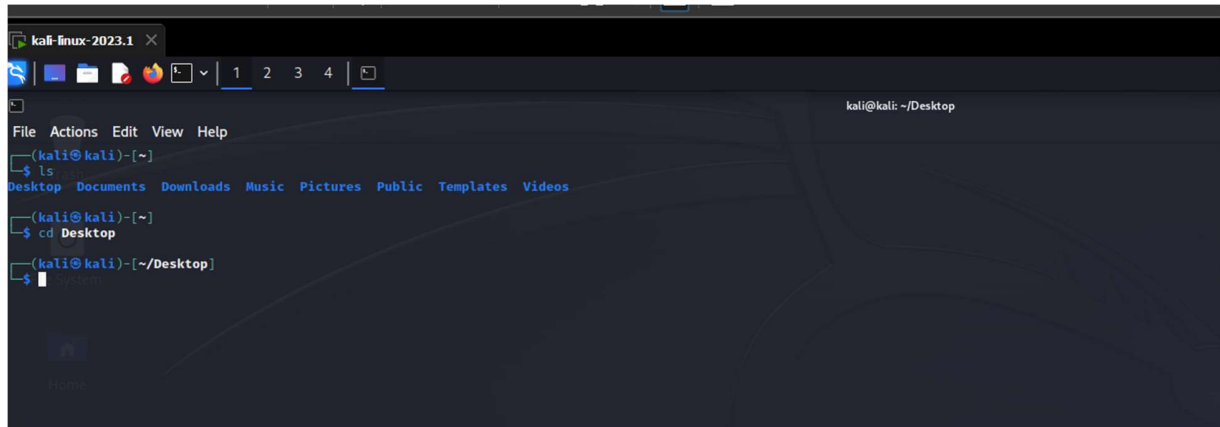
Note: It is recommended to perform this assessment on a Linux machine or virtual environment.

File and Directory Operations:

ls: List files and directories

A screenshot of a Kali Linux virtual machine running in VMware Workstation. The terminal window shows the user 'kali' at the prompt '(kali@kali)-[~]'. The user has entered the command '\$ ls', and the output displays the contents of the home directory: 'Desktop Documents Downloads Music Pictures Public Templates Videos'. The terminal window has a dark theme and a menu bar with 'File Actions Edit View Help'.

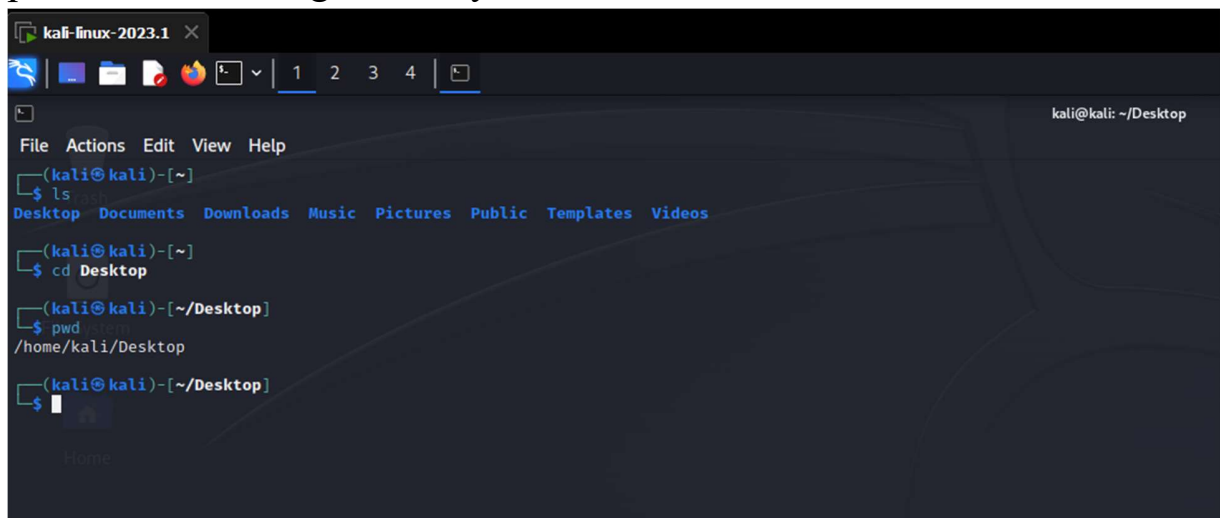
cd: Change directory



A terminal window titled 'kali-linux-2023.1' with a dark background. The prompt is '(kali@kali)-[~]'. The user enters 'ls', showing a directory listing with 'Desktop' highlighted. Then, the user enters 'cd Desktop', and the prompt changes to '(kali@kali)-[~/Desktop]'. The user then enters a dollar sign '\$' followed by a cursor. The top bar shows 'kali@kali: ~/Desktop'.

```
kali-linux-2023.1
(kali@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
(kali@kali)-[~]
$ cd Desktop
(kali@kali)-[~/Desktop]
$
```

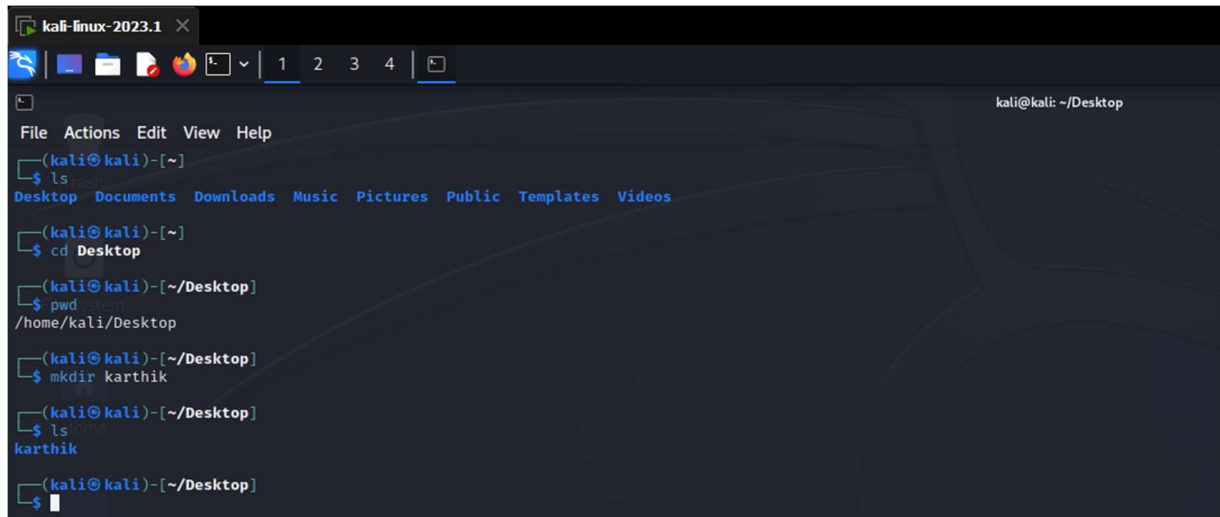
pwd: Print working directory



A terminal window titled 'kali-linux-2023.1' with a dark background. The prompt is '(kali@kali)-[~]'. The user enters 'ls', showing a directory listing with 'Desktop' highlighted. Then, the user enters 'cd Desktop', and the prompt changes to '(kali@kali)-[~/Desktop]'. Next, the user enters 'pwd', and the output is '/home/kali/Desktop'. The user then enters a dollar sign '\$' followed by a cursor. The top bar shows 'kali@kali: ~/Desktop'.

```
kali-linux-2023.1
(kali@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
(kali@kali)-[~]
$ cd Desktop
(kali@kali)-[~/Desktop]
$ pwd
/home/kali/Desktop
(kali@kali)-[~/Desktop]
$
```

mkdir: Make directory



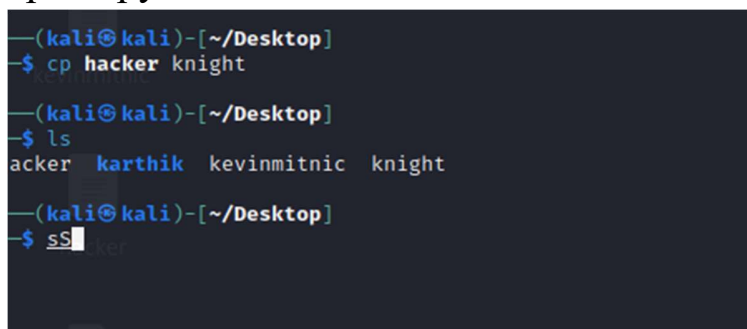
```
kali-linux-2023.1 x
File Actions Edit View Help
(kali@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
(kali@kali)-[~]
$ cd Desktop
(kali@kali)-[~/Desktop]
$ pwd
/home/kali/Desktop
(kali@kali)-[~/Desktop]
$ mkdir karthik
(kali@kali)-[~/Desktop]
$ ls
karthik
(kali@kali)-[~/Desktop]
$
```

touch: Create an empty file



```
(kali@kali)-[~/Desktop]
$ ls
karthik
(kali@kali)-[~/Desktop]
$ touch hacker
(kali@kali)-[~/Desktop]
$ ls
hacker karthik kevinmitnic
(kali@kali)-[~/Desktop]
$
```

cp: Copy files and directories



```
(kali@kali)-[~/Desktop]
$ cp hacker knight
(kali@kali)-[~/Desktop]
$ ls
hacker karthik kevinmitnic knight
(kali@kali)-[~/Desktop]
$ ss
```

mv: Move or rename files and directories

```

(kali㉿kali)-[~/Desktop]
$ mv knight karthik

(kali㉿kali)-[~/Desktop]
$ ls
hacker  karthik  kevinmitnic

(kali㉿kali)-[~/Desktop]
$ cd karthik

(kali㉿kali)-[~/Desktop/karthik]
$ ls
knight

(kali㉿kali)-[~/Desktop/karthik]
$

```

rm: Remove files and directories

```

(kali㉿kali)-[~/Desktop]
$ ls
hacker  karthik  kevinmitnic

(kali㉿kali)-[~/Desktop]
$ rm kevinmitnic

(kali㉿kali)-[~/Desktop]
$ ls
hacker  karthik

```

find: Search for files and directories

```

(kali㉿kali)-[~/Desktop]
$ find karthik
karthik
karthik/knight

(kali㉿kali)-[~/Desktop]
$

```

File Viewing and Editing:

cat: Concatenate and display file content

```

(kali㉿kali)-[~/Desktop]
$ cat hacker
hi this is karthik
HACKER

```

less: View file content with pagination

```
(kali@kali)-[~/Desktop]
$ less hacker
zsh: suspended less hacker
hi this is karthik
HACKER
hacker (END)
```

head: Display the beginning of a file

```
(kali@kali)-[~/Desktop]
$ head hacker
hi this is karthik
HACKER
```

tail: Display the end of a file

```
(kali@kali)-[~/Desktop]
$ tail hacker
hi this is karthik
HACKER

welcome to hackers world
(kali@kali)-[~/Desktop]
$
```

nano: Text editor for creating and editing files

```
File Actions Edit View Help
kali@kali: ~/Desktop x kali@kali: ~/Desktop x
GNU nano 7.2
hi this is karthik
HACKER
cybersecurity
welcome to hackers world
```

vi/vim: Powerful text editor for experienced users

```
kali@kali: ~/Desktop x kali@kali: ~/Desktop x
❯ this is karthik
HACKER
cybersecurity
welcome to hackers world
~
~
~ File System
~
~
~
~
~ Home
~

(kali@kali)-[~/Desktop]
$ vi hacker

zsh: suspended vi hacker
```

File Permissions:

chmod: Change file permissions

```
(kali@kali)-[~/Desktop]
$ chmod +x+r hacker

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

chown: Change file owner

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

chgrp: Change file group

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

File Compression and Archiving:

tar: Archive files

```
(kali㉿kali)-[~/Desktop]
$ tar -cf fil.tar hacker

(kali㉿kali)-[~/Desktop]
$ ls
fil.tar  hacker  hackerY  karthik
```

gzip: Compress files

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

(kali㉿kali)-[~/Desktop]
$ ls
fil.tar.gz  hacker  hackerY  karthik

(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

```
kali-linux-2023.1 - VMware Workstation
File Edit View VM Tabs Help

kali@kali:~/Desktop
top - 07:17:42 up 1:18, 2 users, load average: 0.10, 0.17, 0.13
Tasks: 184 total, 1 running, 181 sleeping, 2 stopped, 0 zombie
Kcpu(s): 25.0 us, 50.0 sy, 0.0 ni, 25.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3886.1 total, 250.6 free, 2711.2 used, 2749.8 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used, 1174.8 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
 49931 kali      20   0   11592    5496   3336 R   11.8   0.1   0:00.06 top
    1 root      20   0  167944  12500   9260 S    0.0   0.3   0:03.66 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
    5 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 slab_flushwq
    6 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 netns
    8 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 kworker/0:0H-events_highpri
   10 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 mm_percpu_wq
   11 root      20   0        0        0     0 I    0.0   0.0   0:00.00 rcu_tasks_kthread
   12 root      20   0        0        0     0 I    0.0   0.0   0:00.00 rcu_tasks_rude_kthread
   13 root      20   0        0        0     0 I    0.0   0.0   0:00.00 rcu_tasks_trace_kthread
   14 root      20   0        0        0     0 S    0.0   0.0   0:00.51 ksoftirqd/0
   15 root      20   0        0        0     0 I    0.0   0.0   0:04.21 rcu_preempt
   16 root      rt    0        0        0     0 S    0.0   0.0   0:00.06 migration/0
   18 root      20   0        0        0     0 S    0.0   0.0   0:00.00 cpulp/0
   19 root      20   0        0        0     0 S    0.0   0.0   0:00.00 cpulp/1
   20 root      rt    0        0        0     0 S    0.0   0.0   0:01.55 migration/1
   21 root      20   0        0        0     0 S    0.0   0.0   0:01.31 ksoftirqd/1
   22 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 kworker/1:0H-events_highpri
   26 root      20   0        0        0     0 S    0.0   0.0   0:00.01 kdevtmpfs
   27 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 inet_frag_wq
   28 root      20   0        0        0     0 S    0.0   0.0   0:00.00 kauditd
   30 root      20   0        0        0     0 S    0.0   0.0   0:00.00 khungtaskd
   32 root      20   0        0        0     0 S    0.0   0.0   0:00.00 oom_reaper
   33 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 writeback
   34 root      20   0        0        0     0 S    0.0   0.0   0:00.37 kcompactd0
   35 root      25   5        0        0     0 S    0.0   0.0   0:00.00 ksmd
   36 root      39  19    0        0     0 S    0.0   0.0   0:02.73 khugepaged
   37 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 kintegrityd
   38 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 kblockd
   39 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 blkcg_punt_bio
   40 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 tpm_dev_wq
   41 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 edac-poller
   42 root      0 -20    0        0     0 I    0.0   0.0   0:00.00 devfreq_wq

To direct input to this VM, click inside or press Ctrl+G.
```

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

```
(kali@kali)-[~/Desktop]
$ bg
[3] continued top
[3] + suspended (signal) top

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

fg: Bring background processes to the foreground

```
(kali@kali)-[~/Desktop]
$ fg
[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
udev             1941744         0   1941744   0% /dev
tmpfs             397932      1168    396764   1% /run
/dev/sr0         4076828  4076828         0 100% /run/live/medium
/dev/loop0       3505408  3505408         0 100% /run/live/rootfs/filesystem.squashfs
tmpfs            1989660  1614576    375084  82% /run/live/overlay
overlay          1989660  1614576    375084  82% /
tmpfs            1989660         0   1989660   0% /dev/shm
tmpfs             5120         0     5120   0% /run/lock
tmpfs            1989660       760   1988900   1% /tmp
tmpfs            397932        96    397836   1% /run/user/1000
```

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

```
(kali㉿kali)-[~/Desktop]
$ uptime
07:58:54 up 1:59, 2 users, load average: 0.10, 0.17, 0.09
```

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
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 0x20<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 0x10<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

```
File System
(kali㉿kali)-[~/Desktop]
$ ping 1.1.1.1
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
64 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

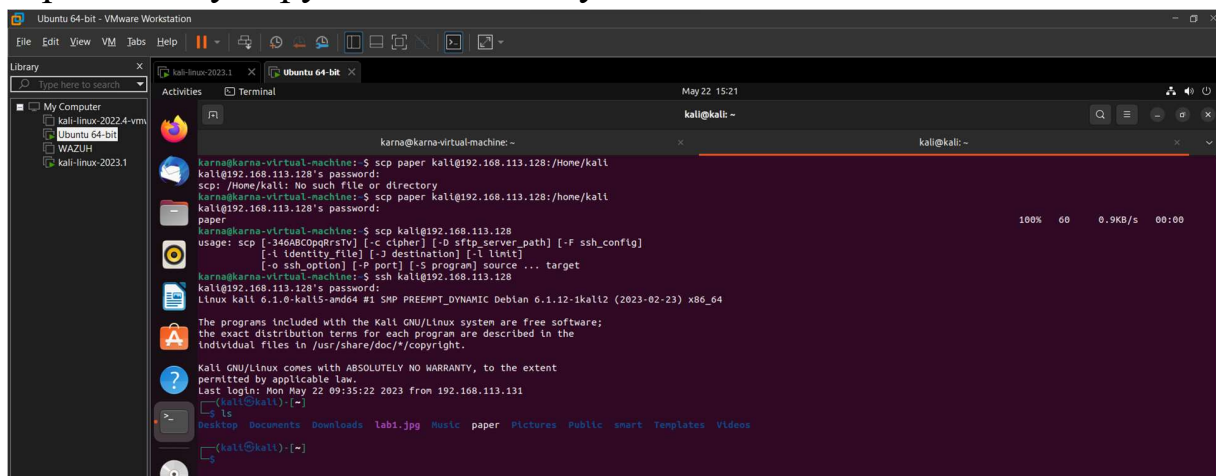
(kali㉿kali)-[~/Desktop]
$
```

```
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+4XClSud6yzDOXP/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.
(kali@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
(kali@kali)-[~]
$ cd Desktop
(kali@kali)-[~/Desktop]
$ ls
dark.zip fil.tar.gz hacker hackery karthik
(kali@kali)-[~/Desktop]
$
```

scp: Securely copy files between systems



```
May 22 15:21
karna@karna-virtual-machine:~$ scp paper kali@192.168.113.128:/home/kali
kali@192.168.113.128's password:
scp: /home/kali: no such file or directory
karna@karna-virtual-machine:~$ scp paper kali@192.168.113.128:/home/kali
kali@192.168.113.128's password:
paper
karna@karna-virtual-machine:~$ scp kali@192.168.113.128
usage: scp [-346ABCPqRrStv] [-c cipher] [-O sftp_server_path] [-F ssh_config]
          [-I identity_file] [-J destination] [-l limit]
          [-o ssh_option] [-P port] [-S program] source ... target
karna@karna-virtual-machine:~$ ssh kali@192.168.113.128
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.
Last login: Mon May 22 09:35:22 2023 from 192.168.113.131
(kali@kali)-[~]
$ ls
Desktop Documents Downloads lab1.jpg Music paper Pictures Public smart Templates Videos
(kali@kali)-[~]
$
```

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/wp-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]:443 ... connected.
HTTP request sent, awaiting response... 200 OK
Length: 79293 (77K) [image/jpeg]
Saving to: 'lab1.jpg'

lab1.jpg
100%[====>] 77.43K 259KB/s in 0.3s

2023-05-22 09:33:17 (259 KB/s) - 'lab1.jpg' saved [79293/79293]

(kali@kali)-[~]
$ ls
Desktop Documents Downloads lab1.jpg Music Pictures Public smart Templates Videos
(kali@kali)-[~]
$
```


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]  
48% [6 Sources store 0 B] [7 Packages 13.6 MB/19.3 MB 71%]
```

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)
Jobs: 0 queued
Failed: 0 units
Since: Mon 2023-05-22 05:59:33 UTC; 2h 26min ago
systemd: 252.5-2
CGroup: /
├─init.scope
│   └─1 /sbin/init components splash noexec
├─system.slice
│   ├──ModemManager.service
│   │   └─1774 /usr/sbin/ModemManager
│   ├──NetworkManager.service
│   │   └─1762 /usr/sbin/NetworkManager --no-daemon
│   ├──colord.service
│   │   └─2210 /usr/libexec/colord
│   ├──cron.service
│   │   └─1753 /usr/sbin/cron -f
│   ├──dbus.service
│   │   └─1754 /usr/bin/dbus-daemon --system --address=systemd: --nofork --nopidfile --systemd-activation --syslog-only
│   ├──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
│   │   └─557 /usr/bin/vmtoolsd
│   ├──polkit.service
│   │   └─1757 /usr/lib/polkit-1/polkitd --no-debug
│   ├──rtkit-daemon.service
│   │   └─1907 /usr/libexec/rtkit-daemon
│   ├──run-vmblock\x2dfuse.mount
│   │   └─511 vmware-vmblock-fuse /run/vmblock-fuse -o rw,subtype=vmware-vmblock,default_permissions,allow_other,dev,suid
│   ├──ssh.service
│   │   └─71455 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"
│   ├──systemd-journald.service
│   │   └─492 /lib/systemd/systemd-journald
│   └─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 x  kali@kali: ~ x
GNU nano 7.2 /tmp/cro
# 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
#
# File System
#
# 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.
#
# Home
#
# 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)
#
# m h dom mon dow  command
```

useradd: Add a new user

```
(kali㉿kali)-[~/Desktop]
$ useradd -D
GROUP=100
HOME=/home
INACTIVE=-1
EXPIRE=
SHELL=/bin/sh
SKEL=/etc/skel
CREATE_MAIL_SPOOL=no
LOG_INIT=yes
```

passwd: Change user password

```
(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