

Assessment 1

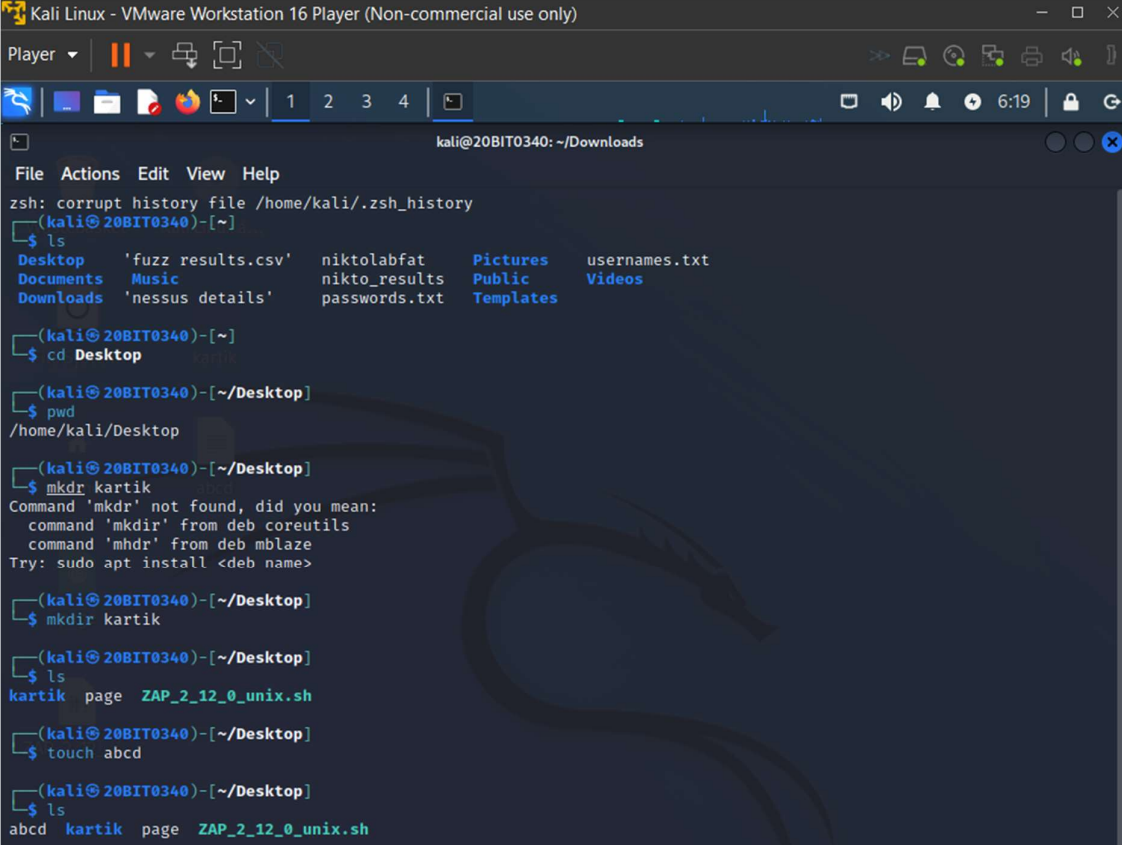
Title: Linux Command List Assessment

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 commandline 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:



The screenshot shows a Kali Linux terminal window titled "Kali Linux - VMware Workstation 16 Player (Non-commercial use only)". The terminal displays the following commands and outputs:

```
zsh: corrupt history file /home/kali/.zsh_history
(kali@20BIT0340)-[~]
$ ls
Desktop    'fuzz results.csv'  nikto labfat  Pictures  usernames.txt
Documents  Music              nikto_results Public    Videos
Downloads  'nessus details'   passwords.txt Templates

(kali@20BIT0340)-[~]
$ cd Desktop
(kali@20BIT0340)-[~/Desktop]
$ pwd
/home/kali/Desktop
(kali@20BIT0340)-[~/Desktop]
$ mldr kartik
Command 'mldr' not found, did you mean:
  command 'mkdir' from deb coreutils
  command 'mhdr' from deb mblaze
Try: sudo apt install <deb name>
(kali@20BIT0340)-[~/Desktop]
$ mkdir kartik
(kali@20BIT0340)-[~/Desktop]
$ ls
kartik  page  ZAP_2_12_0_unix.sh
(kali@20BIT0340)-[~/Desktop]
$ touch abcd
(kali@20BIT0340)-[~/Desktop]
$ ls
abcd  kartik  page  ZAP_2_12_0_unix.sh
```

Copy Operation

```
(kali@20BIT0340)-[~/Desktop]
$ cd

(kali@20BIT0340)-[~]
$ cp
cp: missing file operand
Try 'cp --help' for more information.

(kali@20BIT0340)-[~]
$ cp Desktop/abcd Downloads

(kali@20BIT0340)-[~]
$ cd Downloads

(kali@20BIT0340)-[~/Downloads]
$ ls
20BIT0340_scan_3j7ywh.pdf      'lab fat q3_759vkf.nessus'      Nessus-10.4.2-debian9_amd64.deb
5fdd156c-b8fb-4961-8fa3-c3b041822c08.htm 'My Basic Network Scan_wv7pxl.pdf' Nessus-8.15.8-debian9_amd64.deb
abcd                          my.nessus                       ZAP_2_12_0_unix.sh

(kali@20BIT0340)-[~/Downloads]
$
```

Move or rename

And

Remove file

```
(kali@20BIT0340)-[~/Downloads]
$ cd

(kali@20BIT0340)-[~]
$ cd Desktop

(kali@20BIT0340)-[~/Desktop]
$ mv ZAP_2_12_0_unix.sh zap_scan.sh

(kali@20BIT0340)-[~/Desktop]
$ ls
abcd kartik page zap_scan.sh

(kali@20BIT0340)-[~/Desktop]
$ cd Downloads
cd: no such file or directory: Downloads

(kali@20BIT0340)-[~/Desktop]
$ cd

(kali@20BIT0340)-[~]
$ cd Downloads

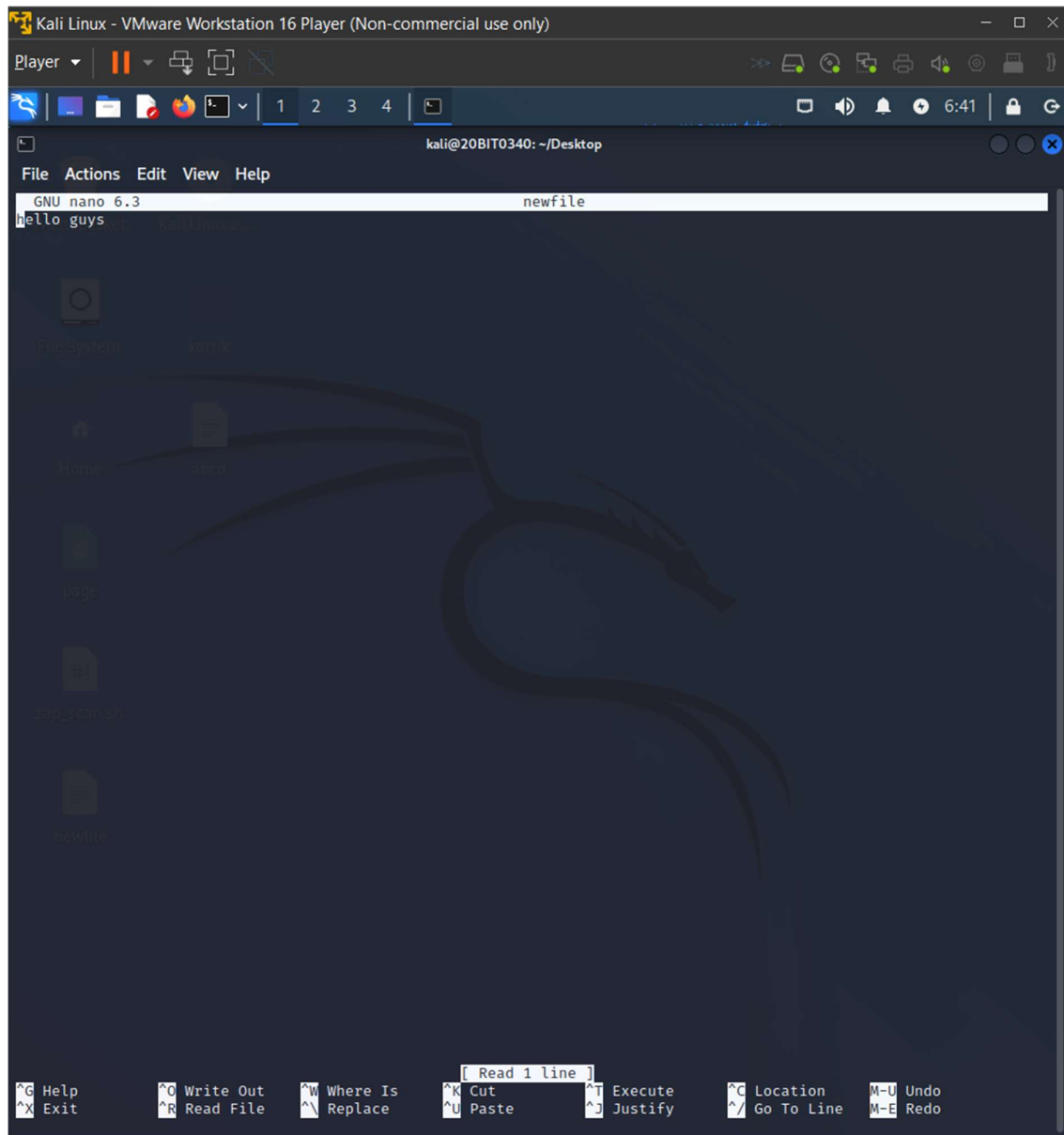
(kali@20BIT0340)-[~/Downloads]
$ rm abcd

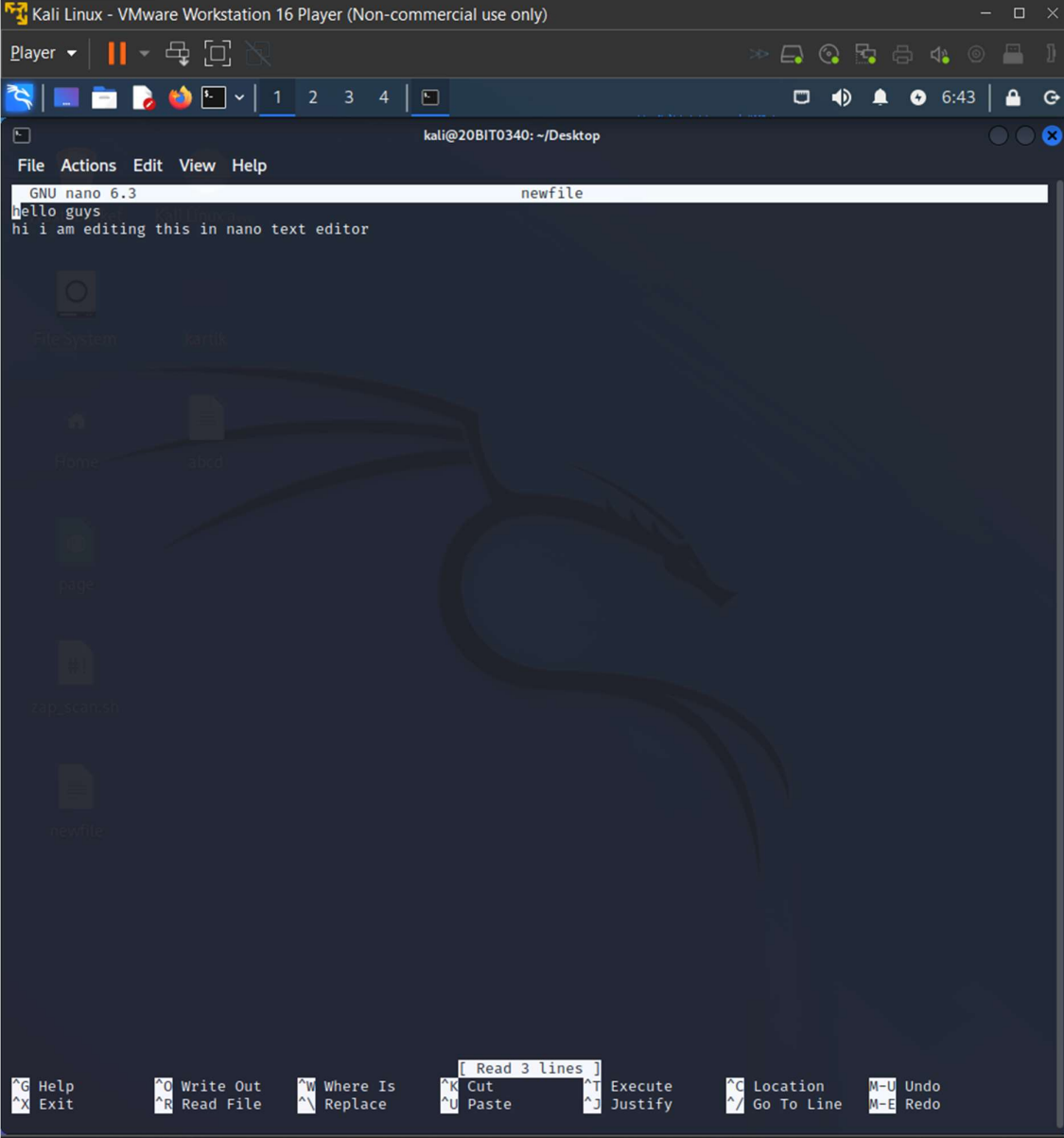
(kali@20BIT0340)-[~/Downloads]
$ ls
20BIT0340_scan_3j7ywh.pdf      'My Basic Network Scan_wv7pxl.pdf'      Nessus-8.15.8-debian9_amd64.deb
5fdd156c-b8fb-4961-8fa3-c3b041822c08.htm my.nessus                               ZAP_2_12_0_unix.sh
'lab fat q3_759vkf.nessus'      Nessus-10.4.2-debian9_amd64.deb

(kali@20BIT0340)-[~/Downloads]
$
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi sit amet elit eget metus rhoncus accumsan. Vestibulum dapibus semper semper. Nunc euismod blandit dui, in auctor est. Sed ut ex vel lorem tempus elementum a vel lectus. Morbi at libero volutpat, rutrum mi nec, lacinia magna. Etiam id vestibulum neque, a interdum elit. Sed cursus consectetur nisl, vel eleifend tellus consectetur accumsan. Nam lobortis est quis massa interdum venenatis eget sit amet justo. Donec placerat eleifend feugiat. Donec ligula nisi, tincidunt vel rhoncus at, semper eu magna. Nulla facilisi. Nulla in euismod tellus. Donec pellentesque, libero id sodales pulvinar, libero libero dignissim nibh, in laoreet quam velit nec massa. Maecenas malesuada malesuada porttitor.
h.txt (END)

```
(kali@20BIT0340)-[~]  
$ cd Desktop  
  
(kali@20BIT0340)-[~/Desktop]  
$ find zap_scan.sh  
zap_scan.sh  
  
(kali@20BIT0340)-[~/Desktop]  
$ ls  
abcd kartik newfile page zap_scan.sh  
  
(kali@20BIT0340)-[~/Desktop]  
$ cat newfile  
hello guys  
  
(kali@20BIT0340)-[~/Desktop]  
$
```





The screenshot shows a Kali Linux virtual machine running in VMware Workstation 16. The nano text editor is open, editing a file named 'newfile'. The file contains two lines of text: 'hello guys' and 'hi i am editing this in nano text editor'. The nano editor's interface includes a menu bar (File, Actions, Edit, View, Help), a status bar (GNU nano 6.3, newfile), and a bottom panel with various keyboard shortcuts. The desktop background features a Kali Linux dragon logo. The taskbar at the top shows the time as 6:43.

```
GNU nano 6.3 newfile
hello guys
hi i am editing this in nano text editor
```

File Actions Edit View Help

^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^_ Go To Line M-E Redo

```
(kali@20BIT0340)-[~/Desktop]
$ cat newfile
hello guys
hi i am editing this in nano text editor

(kali@20BIT0340)-[~/Desktop]
$
```

```
(kali@20BIT0340)-[~/Desktop]
$ ls -la
total 245504
drwxr-xr-x  3 kali kali    4096 May 29 06:43 .
drwxr-xr-x 19 kali kali    4096 May 29 00:49 ..
-rw-r--r--  1 kali kali      0 May 29 00:51 abcd
drwxr-xr-x  2 kali kali    4096 May 29 00:51 kartik
-rw-r--r--  1 kali kali     53 May 29 06:42 newfile
-rw-r--r--  1 kali kali    411 Jan 31 16:59 page
-rwxrwxrwx  1 kali kali 251370072 Jan 17 13:25 zap_scan.sh

Kali Linux - VMware Workstation 16 Player (Non-commercial use only)

Player | [Icons] | 1 2 3 4 | [Icons] | 6:48 | [Icons]

Applications | File | Actions | Edit | View | Help
kali@20BIT0340: ~/Desktop

ls: cannot access '-': No such file or directory
ls: cannot access 'la': No such file or directory

(kali@20BIT0340)-[~/Desktop]
$ ls -la
total 245504
drwxr-xr-x  3 kali kali    4096 May 29 06:43 .
drwxr-xr-x 19 kali kali    4096 May 29 00:49 ..
-rw-r--r--  1 kali kali      0 May 29 00:51 abcd
drwxr-xr-x  2 kali kali    4096 May 29 00:51 kartik
-rw-r--r--  1 kali kali     53 May 29 06:42 newfile
-rw-r--r--  1 kali kali    411 Jan 31 16:59 page
-rwxrwxrwx  1 kali kali 251370072 Jan 17 13:25 zap_scan.sh

(kali@20BIT0340)-[~/Desktop]
$ chown kali newfile

(kali@20BIT0340)-[~/Desktop]
$ ls -la
. .. abcd kartik newfile page zap_scan.sh

(kali@20BIT0340)-[~/Desktop]
$ chgrp kali newfile

(kali@20BIT0340)-[~/Desktop]
$ ls -la
. .. abcd kartik newfile page zap_scan.sh

(kali@20BIT0340)-[~/Desktop]
$ tar -cvf arch1.tar newfile vim.txt
newfile
tar: vim.txt: Cannot stat: No such file or directory
tar: Exiting with failure status due to previous errors

(kali@20BIT0340)-[~/Desktop]
$ tar -cvf arch1.tar newfile vim
newfile
tar: vim: Cannot stat: No such file or directory
tar: Exiting with failure status due to previous errors

(kali@20BIT0340)-[~/Desktop]
$ tar -cvf arch1.tar newfile vim.txt
newfile
vim.txt

(kali@20BIT0340)-[~/Desktop]
$ ls
abcd arch1.tar kartik newfile page vim.txt zap_scan.sh

(kali@20BIT0340)-[~/Desktop]
$ ls -la
. .. abcd arch1.tar kartik newfile page vim.txt zap_scan.sh
```

```
$ unzip sample-large-zip-file
Archive:  sample-large-zip-file.zip
inflating: sample-mpg-file.mpg
```

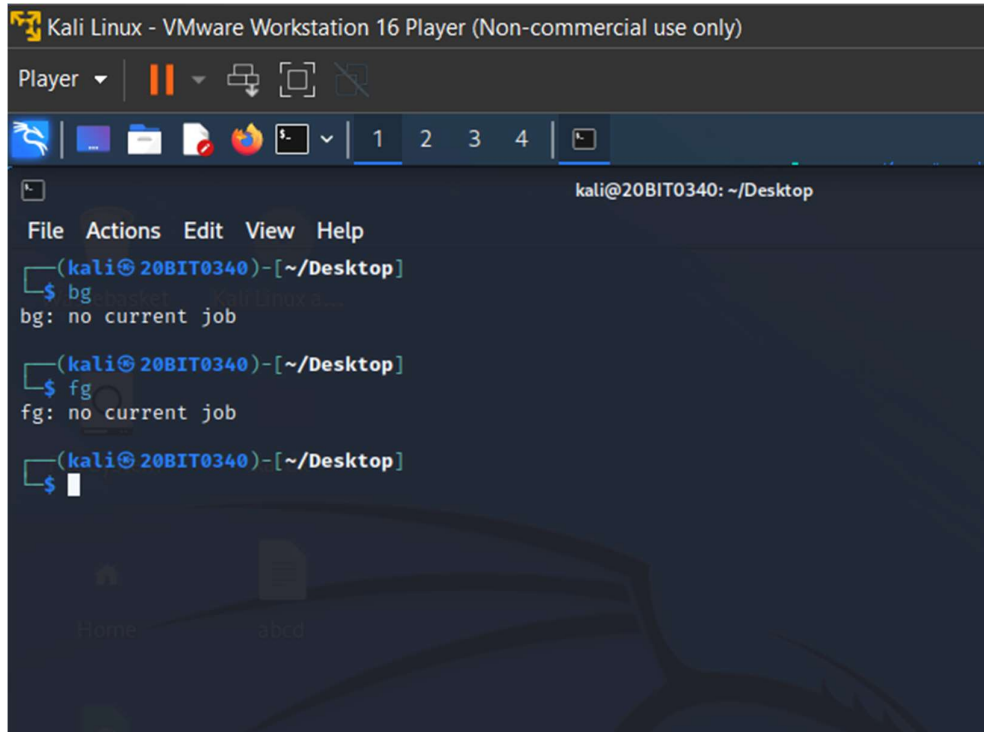

Process Management

```
(kali@20BIT0340)-[~/Desktop]
(kali@20BIT0340)-[~/Desktop]
$ ps
  PID TTY          TIME CMD
 28815 pts/0    00:00:08 zsh
 41669 pts/0    00:00:00 ps
```

```
Kali Linux - VMware Workstation 16 Player (Non-commercial use only)
Player
1 2 3 4
kali@20BIT0340: ~/Desktop
File Actions Edit View Help
top - 06:52:44 up 2:41, 1 user, load average: 0.40, 0.32, 0.25
Tasks: 227 total, 1 running, 226 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.2 us, 0.3 sy, 0.0 ni, 99.4 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 7380.9 total, 5823.0 free, 793.2 used, 764.6 buff/cache
MiB Swap: 975.0 total, 975.0 free, 0.0 used, 6315.6 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR  S  %CPU  %MEM    TIME+  COMMAND
  722 root        20   0 438512 146964 62960 S   1.3   1.9   1:01.65 Xorg
 1116 kali        20   0 468056 49720 35972 S   0.7   0.7   0:04.74 xfce4-panel
 1127 kali        20   0 372132 52880 22400 S   0.7   0.7   1:20.17 panel-13-cpugra
 1191 kali        20   0 299516 49736 31208 S   0.7   0.7   0:19.85 vmttoolsd
 1070 kali        20   0 1823284 110988 79012 S   0.3   1.5   0:30.66 xfwm4
 1129 kali        20   0 417012 30600 20720 S   0.3   0.4   0:39.99 panel-15-genmon
 28810 kali       20   0 434876 104768 85848 S   0.3   1.4   0:07.86 qterminal
 36802 root        20   0      0      0      0 I   0.3   0.0   0:01.06 kworker/4:1-events
 39756 root        20   0      0      0      0 D   0.3   0.0   0:00.71 kworker/3:1+usb_hub_wq
 41700 kali       20   0 10528 3944 3100 R   0.3   0.1   0:00.11 top
    1 root        20   0 168028 12148 8916 S   0.0   0.2   0:04.83 systemd
    2 root        20   0      0      0      0 S   0.0   0.0   0:00.08 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 netns
    7 root        0 -20      0      0      0 I   0.0   0.0   0:00.00 kworker/0:0H-events_highpri
    9 root        0 -20      0      0      0 I   0.0   0.0   0:26.50 kworker/0:1H-events_highpri
   10 root        0 -20      0      0      0 I   0.0   0.0   0:00.00 mm_percpu_wq
```

```
(kali@20BIT0340)-[~/Desktop]
$ kill 1191
```



System Information


```
Kali Linux - VMware Workstation 16 Player (Non-commercial use only)

Player | [Icons] | 1 2 3 4 | [Icons]

kali@20BIT0340: ~/Desktop

File Actions Edit View Help

(kali@20BIT0340)-[~/Desktop]
$ bg
bg: no current job

(kali@20BIT0340)-[~/Desktop]
$ fg
fg: no current job

(kali@20BIT0340)-[~/Desktop]
$ uname
Linux

(kali@20BIT0340)-[~/Desktop]
$ df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev             3742948         0   3742948   0% /dev
tmpfs            755804       1184   754620    1% /run
/dev/sda1       19480400 18072472   393044   98% /
tmpfs            3779004         0   3779004   0% /dev/shm
tmpfs            5120          0     5120   0% /run/lock
tmpfs            755800         88   755712    1% /run/user/1000

(kali@20BIT0340)-[~/Desktop]
$ free
              total        used        free      shared  buff/cache   available
Mem:        7558008       793440       5981080        14052       783488       6485684
Swap:        998396           0       998396

(kali@20BIT0340)-[~/Desktop]
$ uptime
06:55:17 up 2:44, 1 user, load average: 0.18, 0.25, 0.23

(kali@20BIT0340)-[~/Desktop]
$ who
kali      tty7          2023-05-21 20:29 (:0)

(kali@20BIT0340)-[~/Desktop]
$ w
06:55:28 up 2:44, 1 user, load average: 0.23, 0.26, 0.23
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
kali      tty7      :0            21May23  7days  1:03   0.68s xfce4-session
```

Networking

```
Kali Linux - VMware Workstation 16 Player (Non-commercial use only)
Player
1 2 3 4
kali@20BIT0340: ~/Desktop
File Actions Edit View Help
(kali@20BIT0340)-[~/Desktop]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.119.128 netmask 255.255.255.0 broadcast 192.168.119.255
    inet6 fe80::20c:29ff:fe7c:2d6e prefixlen 64 scopeid 0<20<link>
    ether 00:0c:29:7c:2d:6e txqueuelen 1000 (Ethernet)
    RX packets 3294 bytes 227066 (221.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 463 bytes 41390 (40.4 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 0<10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 32 bytes 2592 (2.5 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 32 bytes 2592 (2.5 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

(kali@20BIT0340)-[~/Desktop]
$ 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=128 time=269 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=128 time=112 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=128 time=146 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=128 time=113 ms
^C
-- 8.8.8.8 ping statistics --
4 packets transmitted, 4 received, 0% packet loss, time 3008ms
rtt min/avg/max/mdev = 112.060/160.018/269.240/64.470 ms

(kali@20BIT0340)-[~/Desktop]
$ ssh 49.36.57.106

(kali@20BIT0340)-[~/Desktop]
$ scp -r /var/www/html/ 49.36.57.106

(kali@20BIT0340)-[~/Desktop]
$ wget https://www.learningcontainer.com/sample-zip-files/#
--2023-05-29 06:58:16-- https://www.learningcontainer.com/sample-zip-files/
Resolving www.learningcontainer.com (www.learningcontainer.com)... 172.67.188.164, 104.21.84.74, 2606:4700:3037::681
5:544a, ...
Connecting to www.learningcontainer.com (www.learningcontainer.com)[172.67.188.164]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'index.html'

index.html           [  =>  ] 78.12K  127KB/s  in 0.6s

2023-05-29 06:58:21 (127 KB/s) - 'index.html' saved [79996]
```

System Administration

```
Kali Linux - VMware Workstation 16 Player (Non-commercial use only)
Player
1 2 3 4
kali@20BIT0340: ~/Desktop
File Actions Edit View Help
(kali@20BIT0340)-[~/Desktop]
$ sudo ping 99.83.136.104
[sudo] password for kali:
PING 99.83.136.104 (99.83.136.104) 56(84) bytes of data:
64 bytes from 99.83.136.104: icmp_seq=1 ttl=128 time=210 ms
64 bytes from 99.83.136.104: icmp_seq=2 ttl=128 time=113 ms
64 bytes from 99.83.136.104: icmp_seq=3 ttl=128 time=151 ms
64 bytes from 99.83.136.104: icmp_seq=4 ttl=128 time=261 ms
64 bytes from 99.83.136.104: icmp_seq=5 ttl=128 time=401 ms
^C
  -- 99.83.136.104 ping statistics --
5 packets transmitted, 5 received, 0% packet loss, time 4007ms
rtt min/avg/max/mdev = 113.164/227.178/400.818/100.404 ms
(kali@20BIT0340)-[~/Desktop]
$ sudo apt-get update
Get:1 http://kali.download/kali kali-rolling InRelease [41.2 kB]
Get:2 http://kali.download/kali kali-rolling/main amd64 Packages [19.2 MB]
Get:3 http://kali.download/kali kali-rolling/main amd64 Contents (deb) [44.6 MB]
Get:4 http://kali.download/kali kali-rolling/contrib amd64 Packages [115 kB]
Get:5 http://kali.download/kali kali-rolling/contrib amd64 Contents (deb) [172 kB]
Get:6 http://kali.download/kali kali-rolling/non-free amd64 Packages [217 kB]
Get:7 http://kali.download/kali kali-rolling/non-free amd64 Contents (deb) [928 kB]
Fetched 65.4 MB in 26s (2,534 kB/s)
```

```
Kali Linux - VMware Workstation 16 Player (Non-commercial use only)
Player
1 2 3 4
kali@20BIT0340: ~/Desktop
File Actions Edit View Help
(kali@20BIT0340)-[~/Desktop]
$ systemctl status nessusd.service
o nessusd.service - The Nessus Vulnerability Scanner
   Loaded: loaded (/lib/systemd/system/nessusd.service; disabled; vendor preset: disabled)
   Active: inactive (dead)
(kali@20BIT0340)-[~/Desktop]
$ 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@20BIT0340)-[~/Desktop]
$ sudo useradd kartik
(kali@20BIT0340)-[~/Desktop]
$ sudo passwd kartik
New password:
Retype new password:
passwd: password updated successfully
(kali@20BIT0340)-[~/Desktop]
$
```