

**ASSESSMENT-1**

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**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 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

Kali (20B10T032) - VMware Workstation 17 Player (Non-commercial use only)

Player | 1 2 3 4 |

kali@kali: ~

```
File Actions Edit View Help
[(kali㉿kali)-~]
$ ls
Desktop Documents Downloads LabQn4.txt Music Pictures Public Templates Videos

[(kali㉿kali)-~]
$ ls -al
total 156
drwxr-xr-x 18 kali kali 4096 May 19 13:24 .
drwxr-xr-x  3 root root 4096 May 12 2022 ..
-rw-r--r--  1 kali kali  1 May 12 2022 .bash_history
-rw-r--r--  1 kali kali 220 May 12 2022 .bash_logout
-rw-r--r--  1 kali kali 5551 May 12 2022 .bashrc
-rw-r--r--  1 kali kali 3526 May 12 2022 .bashrc.original
drwx-----  4 kali kali 4096 Jan 12 23:03 .BurpSuite
drwx----- 12 kali kali 4096 Jan 12 23:03 .cache
drwxr-xr-x 14 kali kali 4096 Feb 16 12:17 .config
drwxr-xr-x  2 kali kali 4096 May 12 2022 Desktop
-rw-r--r--  1 kali kali   35 May 12 2022 .dmrc
drwxr-xr-x  2 kali kali 4096 May 12 2022 Documents
drwxr-xr-x  2 kali kali 4096 Mar 24 04:24 Downloads
-rw-r--r--  1 kali kali 11759 May 12 2022 .face
lrwxrwxrwx  1 kali kali   5 May 12 2022 .face.icon → .face
drwx-----  3 kali kali 4096 May 12 2022 .gnupg
-rw-----  1 kali kali   0 May 12 2022 .ICEauthority
drwxr-xr-x  4 kali kali 4096 Jan 12 22:45 java
-rw-r--r--  1 kali kali 5843 Dec 22 22:32 LabQn4.txt
drwx-----  4 kali kali 4096 May 12 2022 .local
drwx-----  5 kali kali 4096 Dec 15 11:39 .mozilla
drwxr-xr-x 10 kali kali 4096 Jan 20 10:44 msf4
drwxr-xr-x  2 kali kali 4096 May 12 2022 Music
drwxr-xr-x  2 kali kali 4096 Mar  1 03:37 Pictures
-rw-r--r--  1 kali kali   807 May 12 2022 .profile
drwxr-xr-x  2 kali kali 4096 May 12 2022 Public
-rw-r--r--  1 kali kali     0 May 12 2022 .sudo_as_admin_successful
drwxr-xr-x  2 kali kali 4096 May 12 2022 Templates
```

cd: Change directory

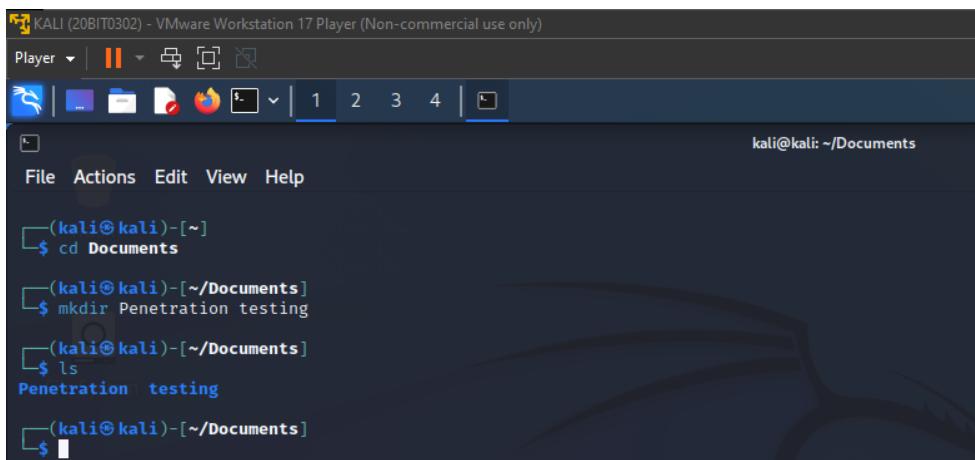
A screenshot of a Kali Linux terminal window within a VMware Workstation 17 Player interface. The terminal is running as root ('kali@kali') and is currently in the home directory (~). The user has typed the command 'cd Desktop' and is awaiting the results. The desktop environment behind the terminal shows various icons and a blue taskbar at the top.

**pwd:** Print working directory

A screenshot of a Kali Linux desktop environment. The top bar shows the title "Kali (20BIT03Q) - VMware Workstation 17 Player (Non-commercial use only)". Below the title is a toolbar with icons for file operations like Open, Save, Print, and a search function. The main window has a dark blue header with tabs labeled 1 through 5. The central area contains a terminal window titled "File Actions Edit View Help" and a file browser window titled "(kali㉿kali)-[~]". The terminal shows the command \$ pwd and the output /home/kali. The file browser shows a single file named "index.html". The status bar at the bottom right shows the time as 13:30.

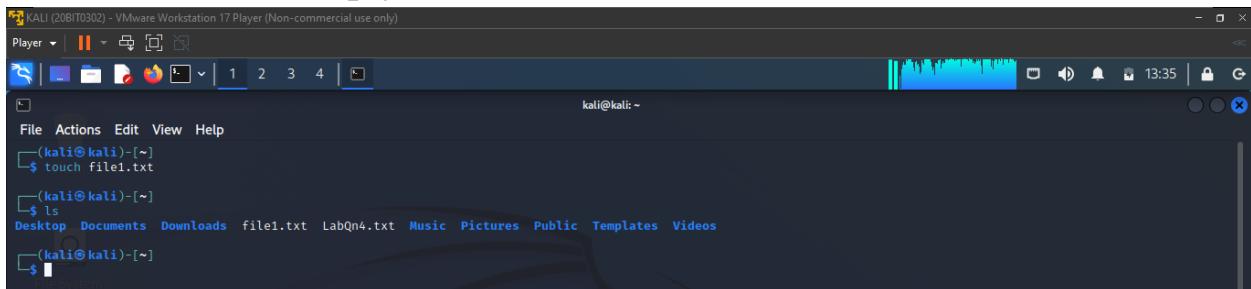
## **mkdir: Make directory**

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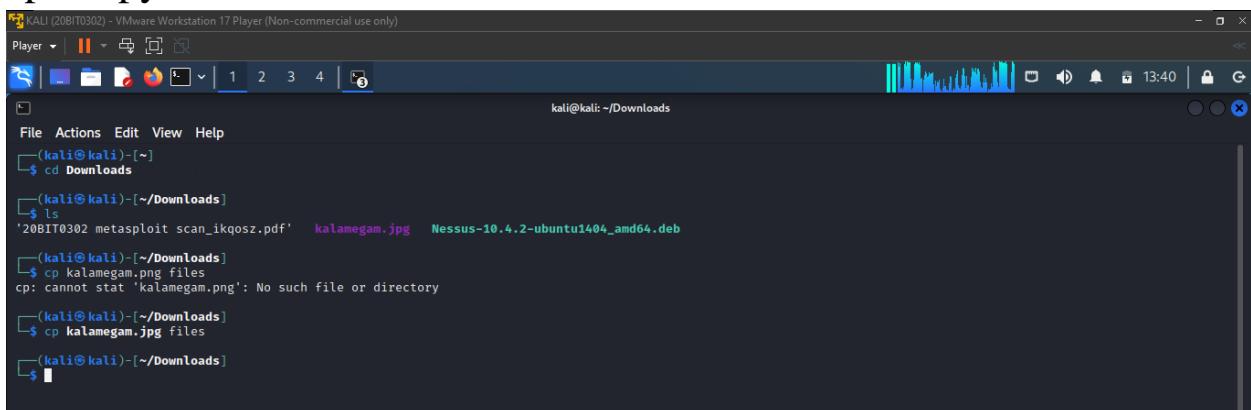
```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | ||| | 1 2 3 4 | 
File Actions Edit View Help
(kali㉿kali)-[~]
$ cd Documents
(kali㉿kali)-[~/Documents]
$ mkdir Penetration testing
(kali㉿kali)-[~/Documents]
$ ls
Penetration testing
(kali㉿kali)-[~/Documents]
$
```

**touch:** Create an empty file



```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | ||| | 1 2 3 4 | 
File Actions Edit View Help
(kali㉿kali)-[~]
$ touch file1.txt
(kali㉿kali)-[~]
$ ls
Desktop Documents Downloads file1.txt LabQn4.txt Music Pictures Public Templates Videos
(kali㉿kali)-[~]
$
```

**cp:** Copy files and directories



```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | ||| | 1 2 3 4 | 
File Actions Edit View Help
(kali㉿kali)-[~]
$ cd Downloads
(kali㉿kali)-[~/Downloads]
$ ls
'20BIT0302 metasploit scan_ikqosz.pdf'  kalamegam.jpg  Nessus-10.4.2-ubuntu1404_amd64.deb
(kali㉿kali)-[~/Downloads]
$ cp kalamegam.png files
cp: cannot stat 'kalamegam.png': No such file or directory
(kali㉿kali)-[~/Downloads]
$ cp kalamegam.jpg files
(kali㉿kali)-[~/Downloads]
$
```

**mv:** Move or rename files and directories

```
KALI (208IT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | II | ☰ | 1 2 3 4 | ☰ | X
File Actions Edit View Help
[kali㉿kali] ~] kali@kali:~/Pictures
[kali@kali:~/Pictures]
ls
demo.png Screenshot_2022-12-21_10_55_53.png Screenshot_2023-01-19_22_30_17.png Screenshot_2023-01-20_10_28_02.png
Screenshot_2022-12-21_10_57_33.png Screenshot_2023-01-19_22_30_35.png Screenshot_2023-01-20_10_28_26.png
Screenshot_2022-12-22_00_06_56.png Screenshot_2023-01-19_23_00_59.png Screenshot_2023-01-20_10_28_36.png
Screenshot_2023-01-19_22_14_56.png Screenshot_2023-01-19_23_01_29.png Screenshot_2023-01-20_10_29_31.png
Screenshot_2023-01-19_22_18_02.png Screenshot_2023-01-19_23_01_57.png Screenshot_2023-01-20_10_34_46.png
Screenshot_2023-01-19_22_20_55.png Screenshot_2023-01-19_20_08_51.png Screenshot_2023-01-20_10_41_59.png
Screenshot_2023-01-19_22_20_55.png Screenshot_2023-01-20_10_02_49.png Screenshot_2023-01-20_10_43_13.png
Screenshot_2023-01-19_22_29_25.png Screenshot_2023-01-20_10_04_08.png Screenshot_2023-01-03_36_11.png
Screenshot_2023-01-19_22_29_40.png Screenshot_2023-01-20_10_27_51.png Screenshot_2023-03-01_03_37_41.png
mv demo.png Files
cd Files
cd: not a directory: Files
ls
Screenshot_2023-01-19_22_29_40.png Screenshot_2023-01-19_22_30_17.png Screenshot_2023-01-19_22_30_35.png Screenshot_2023-01-19_23_00_59.png Screenshot_2023-01-19_23_01_29.png Screenshot_2023-01-19_23_01_57.png Screenshot_2023-01-20_10_08_51.png
ls
Files
Screenshot_2022-12-15_11_52_04.png Screenshot_2023-01-19_22_30_17.png Screenshot_2023-01-20_10_28_02.png
Screenshot_2022-12-15_11_53_45.png Screenshot_2023-01-19_22_30_35.png Screenshot_2023-01-20_10_28_26.png
Screenshot_2022-12-21_22_41_38.png Screenshot_2023-01-19_23_00_59.png Screenshot_2023-01-20_10_28_36.png
Screenshot_2022-12-20_10_51_03.png Screenshot_2023-01-19_22_14_56.png Screenshot_2023-01-20_10_29_31.png
Screenshot_2022-12-20_10_51_05.png Screenshot_2023-01-19_22_18_02.png Screenshot_2023-01-20_10_34_46.png
Screenshot_2022-12-20_10_51_27.png Screenshot_2023-01-19_22_20_55.png Screenshot_2023-01-20_08_51_28.png
Screenshot_2023-01-19_22_21_42_23.png Screenshot_2023-01-19_22_28_49.png Screenshot_2023-01-20_10_41_59.png
Screenshot_2023-01-19_22_21_50.png Screenshot_2023-01-19_22_29_40.png Screenshot_2023-01-20_10_43_13.png
Screenshot_2022-12-21_10_51_50.png
```

rm: Remove files and directories

## **ASSESSMENT-1**

Kali (20BIT032) - VMware Workstation 17 Player (Non-commercial use only)

Player | [ ] | [ ] | [ ]

File Actions Edit View Help

(kali㉿kali)-[~/Pictures]

```
$ ls
Files
Screenshot_2022-12-15_11_52_04.png Screenshot_2022-12-21_10_55_53.png Screenshot_2023-01-19_22_30_17.png Screenshot_2023-01-20_10_28_02.png
Screenshot_2022-12-15_11_53_45.png Screenshot_2022-12-22_00_06_56.png Screenshot_2023-01-19_22_30_35.png Screenshot_2023-01-20_10_28_26.png
Screenshot_2022-12-15_22_41_38.png Screenshot_2023-01-19_22_14_56.png Screenshot_2023-01-19_23_01_29.png Screenshot_2023-01-20_10_29_31.png
Screenshot_2022-12-20_10_51_03.png Screenshot_2023-01-19_22_18_02.png Screenshot_2023-01-19_23_01_57.png Screenshot_2023-01-20_10_34_46.png
Screenshot_2022-12-20_10_51_05.png Screenshot_2023-01-19_22_20_55.png Screenshot_2023-01-20_08_51_28.png Screenshot_2023-01-20_10_41_59.png
Screenshot_2022-12-20_10_51_27.png Screenshot_2023-01-19_22_28_49.png Screenshot_2023-01-20_10_02_49.png Screenshot_2023-01-20_10_43_13.png
Screenshot_2022-12-21_10_42_23.png Screenshot_2023-01-19_22_29_25.png Screenshot_2023-01-20_10_04_08.png Screenshot_2023-03-01_03_36_11.png
Screenshot_2022-12-21_10_51_50.png Screenshot_2023-01-19_22_29_40.png Screenshot_2023-01-20_10_27_51.png Screenshot_2023-03-01_03_37_41.png
Screenshot_2022-12-21_10_55_53.png Screenshot_2023-01-19_22_30_17.png Screenshot_2023-01-20_10_28_02.png Screenshot_2023-01-20_10_41_59.png

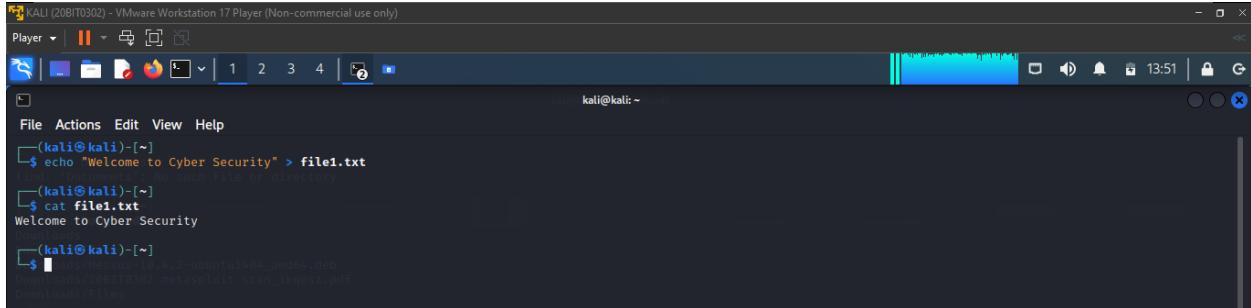
(kali㉿kali)-[~/Pictures]
$ rm Files
Screenshot_2022-15_11_52_04.png Screenshot_2022-15_11_53_45.png Screenshot_2022-15_22_41_38.png Screenshot_2022-12-15_11_51_03.png Screenshot_2022-12-15_10_51_05.png Screenshot_2022-12-20_10_51_27.png Screenshot_2022-12-21_10_42_23.png Screenshot_2022-12-21_10_51_50.png Screenshot_2022-12-21_10_55_53.png
Screenshot_2023-01-19_22_30_17.png Screenshot_2023-01-19_23_00_59.png Screenshot_2023-01-19_23_01_29.png Screenshot_2023-01-19_22_18_02.png Screenshot_2023-01-19_22_20_55.png Screenshot_2023-01-19_22_28_49.png Screenshot_2023-01-19_22_29_25.png Screenshot_2023-01-19_22_29_40.png Screenshot_2023-01-19_22_30_17.png
Screenshot_2023-01-19_22_30_35.png Screenshot_2023-01-19_23_01_57.png Screenshot_2023-01-20_08_51_28.png Screenshot_2023-01-19_22_14_56.png Screenshot_2023-01-19_22_20_55.png Screenshot_2023-01-19_22_28_49.png Screenshot_2023-01-19_22_29_25.png Screenshot_2023-01-19_22_29_40.png Screenshot_2023-01-19_22_30_17.png
Screenshot_2023-01-20_10_02_49.png Screenshot_2023-01-20_10_04_08.png Screenshot_2023-01-20_10_27_51.png Screenshot_2023-01-20_10_34_46.png Screenshot_2023-01-20_10_41_59.png Screenshot_2023-01-20_10_43_13.png Screenshot_2023-03-01_03_36_11.png Screenshot_2023-03-01_03_37_41.png Screenshot_2023-01-20_10_28_02.png

(kali㉿kali)-[~/Pictures]
$
```

## find: Search for files and directories

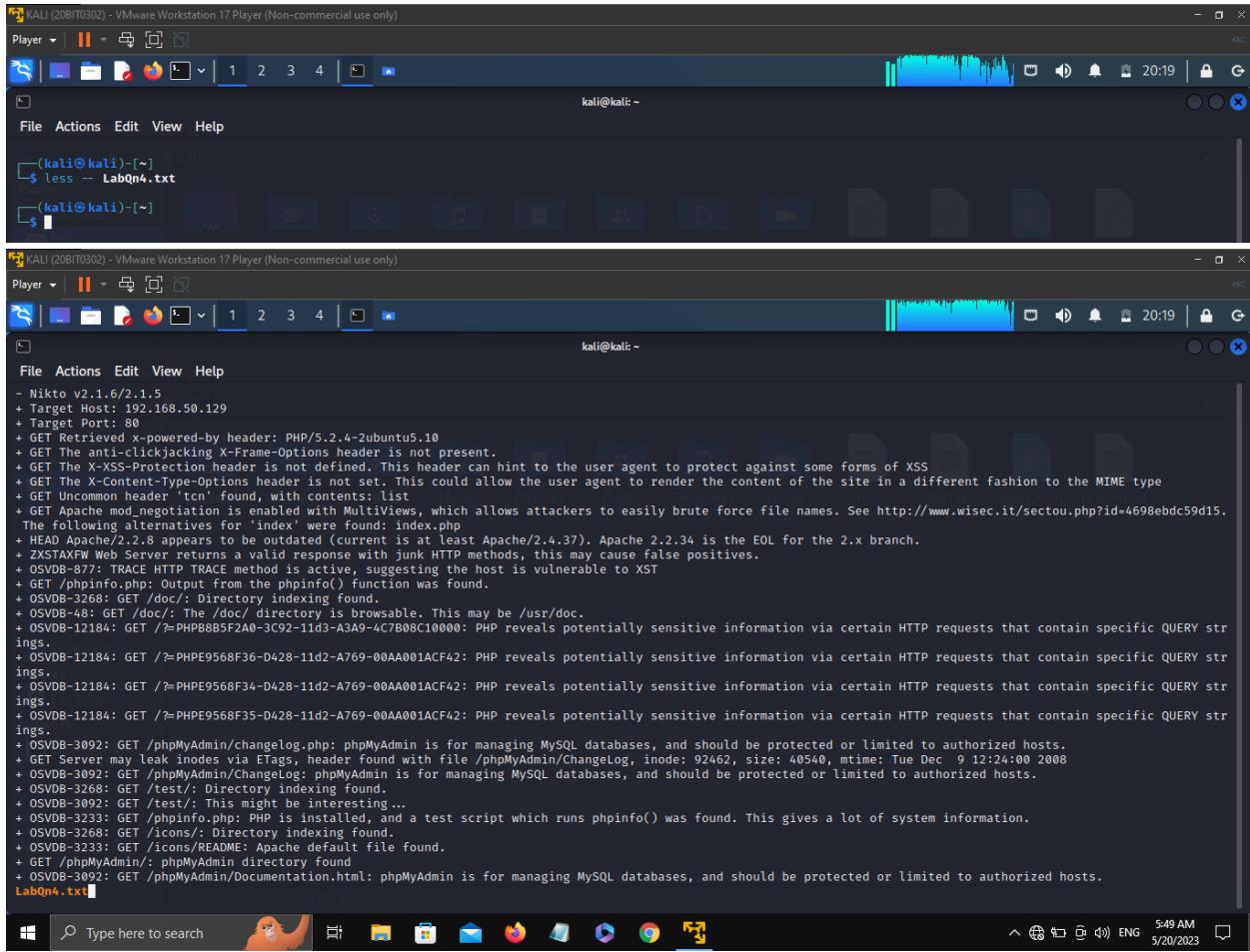
## File Viewing and Editing:

### cat: Concatenate and display file content



```
KALI (208IT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || ⌂ ⌂ ⌂ ⌂
File Actions Edit View Help
(kali㉿kali)-[~]
└$ echo "Welcome to Cyber Security" > file1.txt
(kali㉿kali)-[~]
└$ cat file1.txt
Welcome to Cyber Security
(kali㉿kali)-[~]
└$
```

## less: View file content with pagination



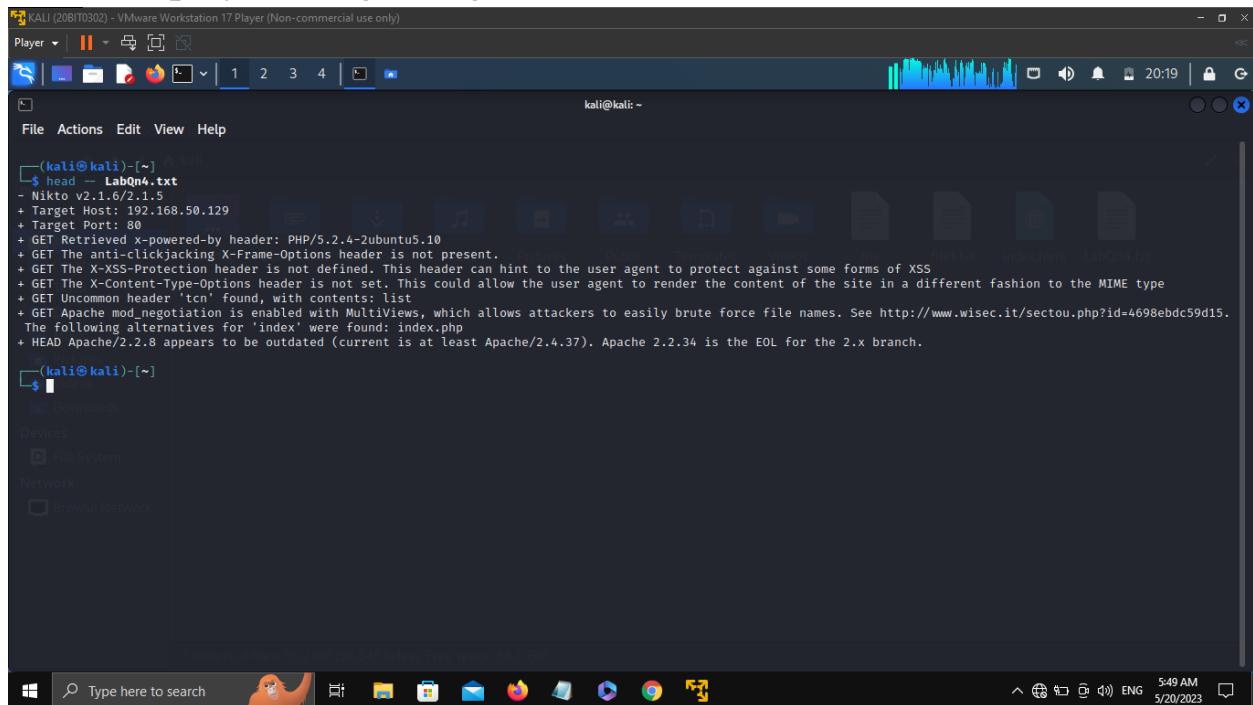
```
KALI (208IT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || ⌂ ⌂ ⌂ ⌂
File Actions Edit View Help
(kali㉿kali)-[~]
└$ less -- LabQn4.txt
(kali㉿kali)-[~]
└$
```

```
KALI (208IT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || ⌂ ⌂ ⌂ ⌂
File Actions Edit View Help
- Nikto v2.1.6/2.1.5
+ Target Host: 192.168.50.129
+ Target Port: 80
+ GET Retrieved x-powered-by header: PHP/5.2.4-2ubuntu5.10
+ GET The anti-clickjacking X-Frame-Options header is not present.
+ GET The X-XSS-Protection header is not defined. This header can hint to the user agent to protect against some forms of XSS
+ GET The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type
+ GET Uncommon header 'tcn' found, with contents: list
+ GET Apache mod_negotiation is enabled with MultiViews, which allows attackers to easily brute force file names. See http://www.wisec.it/sectou.php?id=4698ebdc59d15.
The following alternatives for 'index' were found: index.php
+ HEAD Apache/2.2.8 appears to be outdated (current is at least Apache/2.4.37). Apache 2.2.8 is the EOL for the 2.x branch.
+ ZXSTAXFW Web Server returns a valid response with junk HTTP methods, this may cause false positives.
+ OSVDB-877: TRACE HTTP TRACE method is active, suggesting the host is vulnerable to XST
+ GET /phpinfo.php: Output from the phpinfo() function was found.
+ OSVDB-3268: GET /doc/: Directory indexing found.
+ OSVDB-48: GET /doc/: The /doc/ directory is browsable. This may be /usr/doc.
+ OSVDB-12184: GET /?=PHPE9568F2A0-3C92-11d3-A3A9-CEB08C10000: PHP reveals potentially sensitive information via certain HTTP requests that contain specific QUERY strings.
+ OSVDB-12184: GET /?=PHPE9568F36-D428-11d2-A769-00AA001ACF42: PHP reveals potentially sensitive information via certain HTTP requests that contain specific QUERY strings.
+ OSVDB-12184: GET /?=PHPE9568F34-D428-11d2-A769-00AA001ACF42: PHP reveals potentially sensitive information via certain HTTP requests that contain specific QUERY strings.
+ OSVDB-12184: GET /?=PHPE9568F35-D428-11d2-A769-00AA001ACF42: PHP reveals potentially sensitive information via certain HTTP requests that contain specific QUERY strings.
+ OSVDB-3092: GET /phpMyAdmin/changelog.php: phpMyAdmin is for managing MySQL databases, and should be protected or limited to authorized hosts.
+ GET Server may leak inodes via ETags, header found with file /phpMyAdmin/Changelog, inode: 92462, size: 40540, mtime: Tue Dec 9 12:24:00 2008
+ OSVDB-3092: GET /phpMyAdmin/Changelog: phpMyAdmin is for managing MySQL databases, and should be protected or limited to authorized hosts.
+ OSVDB-3268: GET /test/: Directory indexing found.
+ OSVDB-3092: GET /test/: This might be interesting...
+ OSVDB-3233: GET /phpinfo.php: PHP is installed, and a test script which runs phpinfo() was found. This gives a lot of system information.
+ OSVDB-3233: GET /icons/README: Apache default file found.
+ GET /phpMyAdmin/: phpMyAdmin directory found
+ OSVDB-3092: GET /phpMyAdmin/Documentation.html: phpMyAdmin is for managing MySQL databases, and should be protected or limited to authorized hosts.
LabQn4.txt
```

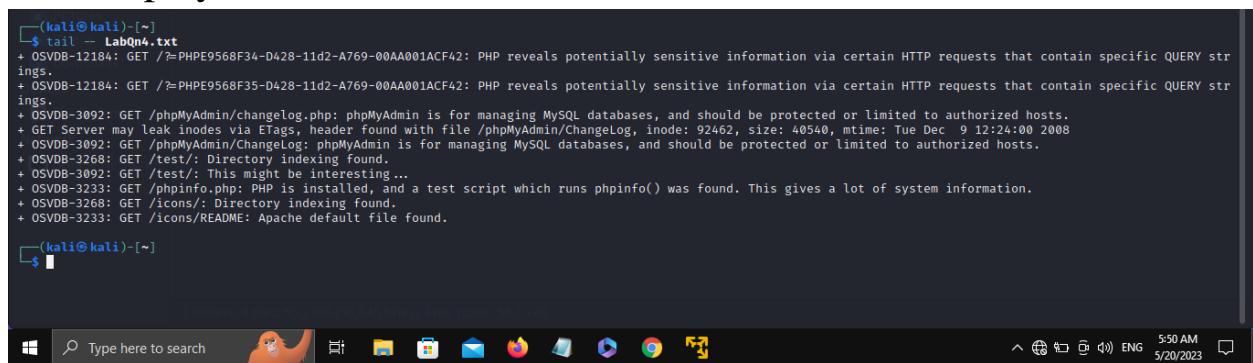
**ASSESSMENT-1**

**head:** Display the beginning of a file



```
(kali㉿kali)-[~]
$ head -n 10 LabQn4.txt
- Nikto v2.1.6/2.1.5
+ Target Host: 192.168.50.129
+ Target Port: 80
+ GET Retrieved x-powered-by header: PHP/5.2.4-2ubuntu5.10
+ GET The Anti-clickjacking X-Frame-Options header is not present.
+ GET The X-XSS-Protection header is not defined. This header can hint to the user agent to protect against some forms of XSS
+ GET The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type
+ GET Uncommon header 'tcm' found, with contents: list
+ GET Apache mod_negotiation is enabled with MultiViews, which allows attackers to easily brute force file names. See http://www.wisec.it/sectou.php?id=4698ebdc59d15.
The following alternatives for 'index' were found: index.php
+ HEAD Apache/2.2.8 appears to be outdated (current is at least Apache/2.4.37). Apache 2.2.34 is the EOL for the 2.x branch.
```

**tail:** Display the end of a file



```
(kali㉿kali)-[~]
$ tail -n 10 LabQn4.txt
+ OSVDB-12184: GET /?=>PHPE9568F34-D428-11d2-A769-00AA001ACF42: PHP reveals potentially sensitive information via certain HTTP requests that contain specific QUERY strings.
+ OSVDB-12184: GET /?=>PHPE9568F35-D428-11d2-A769-00AA001ACF42: PHP reveals potentially sensitive information via certain HTTP requests that contain specific QUERY strings.
+ OSVDB-3092: GET /phpMyAdmin/changelog.php: phpMyAdmin is for managing MySQL databases, and should be protected or limited to authorized hosts.
+ GET Server may leak inodes via ETags, header found with file /phpMyAdmin/ChangeLog, inode: 92462, size: 40540, mtime: Tue Dec 9 12:24:00 2008
+ OSVDB-3092: GET /phpMyAdmin/ChangeLog: phpMyAdmin is for managing MySQL databases, and should be protected or limited to authorized hosts.
+ OSVDB-3268: GET /test/: Directory indexing found.
+ OSVDB-3268: GET /test/: This might be interesting ...
+ OSVDB-3233: GET /phpinfo.php: PHP is installed, and a test script which runs phpinfo() was found. This gives a lot of system information.
+ OSVDB-3268: GET /icons/: Directory indexing found.
+ OSVDB-3233: GET /icons/README: Apache default file found.
```

**nano:** Text editor for creating and editing files

The screenshot shows a Kali Linux desktop environment within a VMware Workstation window. At the top, there are two terminal windows:

- The first terminal window shows the output of the command `nano --version`, which displays the version information for the nano text editor.
- The second terminal window shows the output of the command `nano file2`, which creates a new file named `file2`.

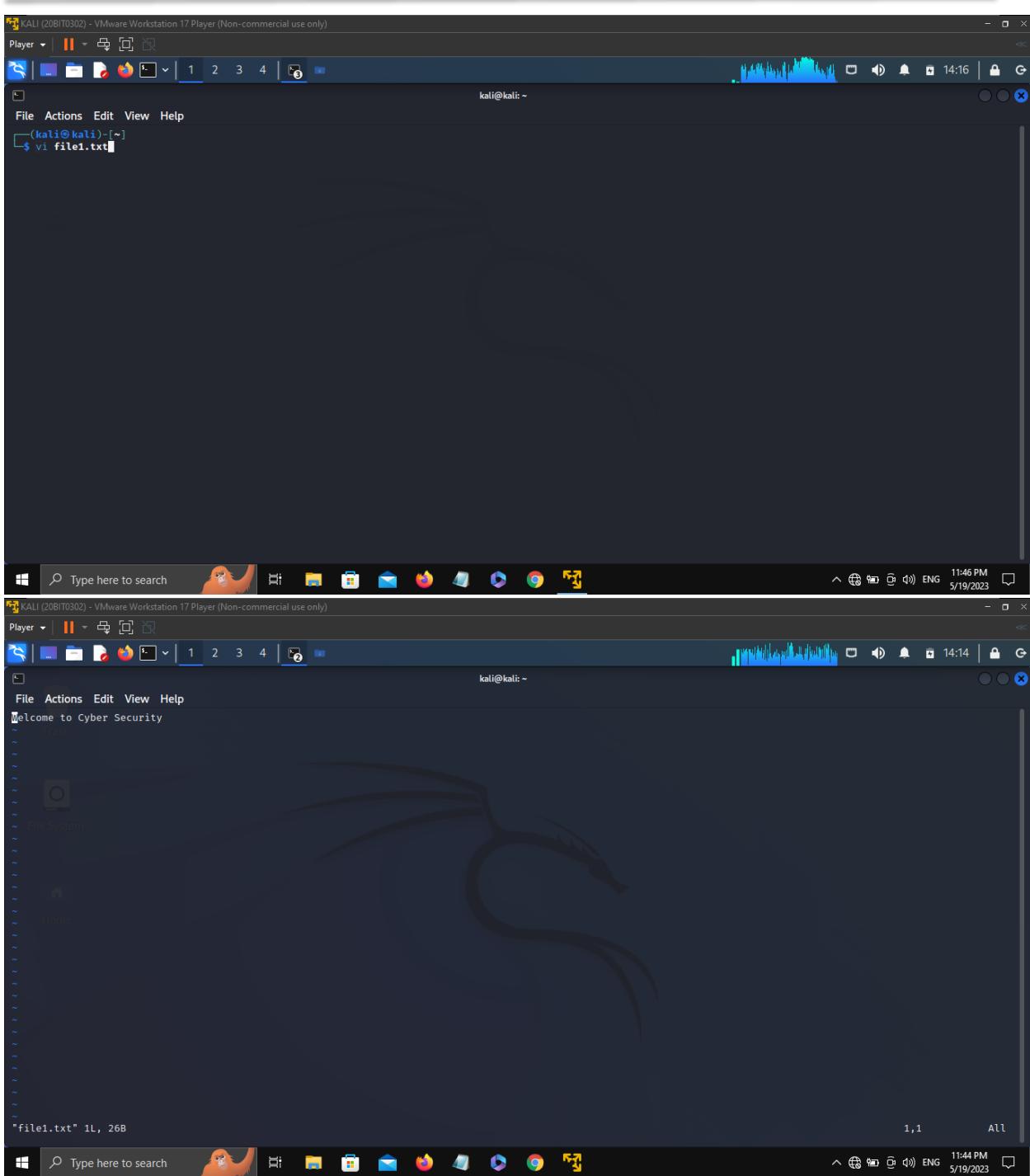
Below the terminals is a file manager window titled "file2" showing the contents of the current directory (~). The directory listing includes:

- Documents (empty)
- Downloads (empty)
- Downloads/files (empty)
- Downloads/nexux-10.4.3-ubuntu16.04\_amd64.deb
- Downloads/00140727\_exploit20210520.tgz
- Downloads/files

At the bottom of the screen is the Windows taskbar, which includes the Start button, a search bar, pinned icons for File Explorer, Mail, Photos, and Edge, and system status indicators for battery level, signal strength, and date/time (5/19/2023, 11:38 PM).

vi/vim: Powerful text editor for experienced users

## ASSESSMENT-1



### File Permissions:

chmod: Change file permissions

A screenshot of a Kali Linux desktop environment. The terminal window at the top shows a user's session: (kali㉿kali)-[~]. The user runs several commands: 'ls' to list files, 'chmod u=rw,og=r file1.txt' to change file permissions, and 'ls -l' to show detailed file information. The desktop background features a large, stylized black cat logo. The taskbar at the bottom includes icons for File Explorer, Task View, Edge, File History, Mail, File Explorer, File History, Edge, File History, and File History.

## chown: Change file owner

Kali (20BIT032) - VMware Workstation 17 Player (Non-commercial use only)

Player | [ ] | [ ] | [ ]

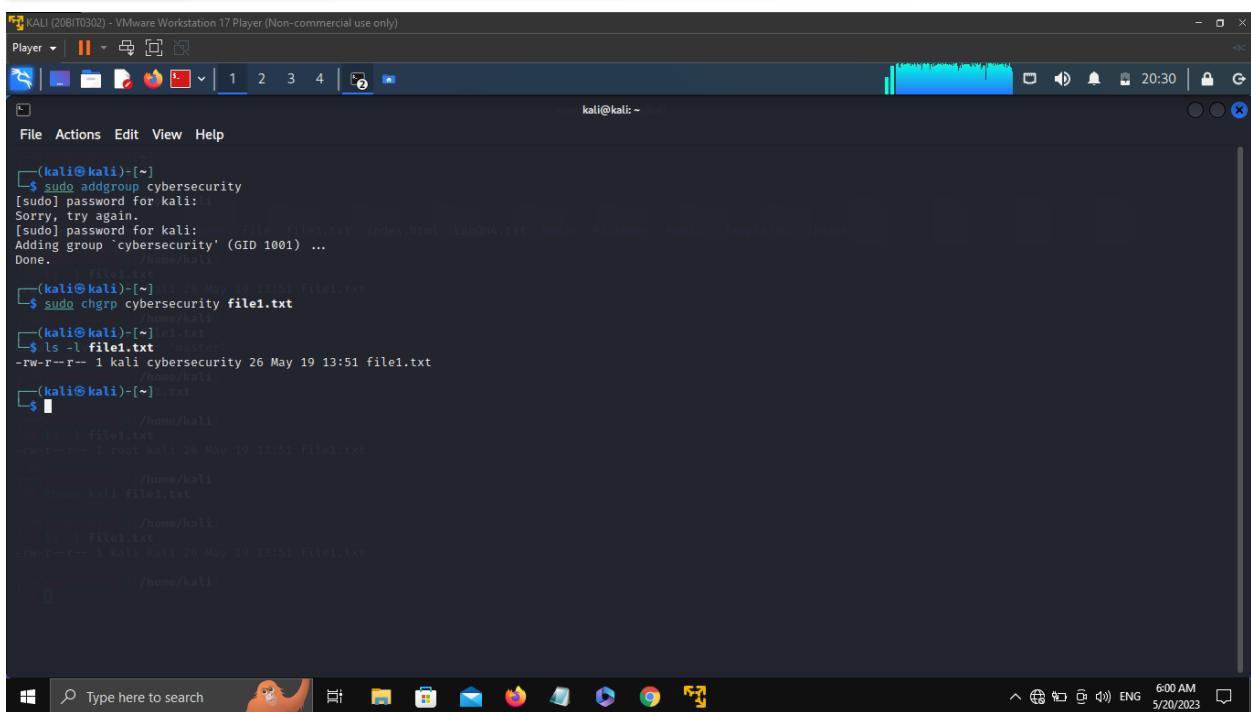
File Manager | 1 2 3 4 | [ ]

root@kali: /home/kali

```
File Actions Edit View Help
└── (root@kali) ~
# cd /home/kali/
# ls
Desktop Documents Downloads file file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
└── (root@kali) ~/Downloads
# ls -l file1.txt
-rw-r--r-- 1 kali kali 26 May 19 13:51 file1.txt
# chown master file1.txt
chown: invalid user: 'master'
# chown root file1.txt
# ls -l file1.txt
-rw-r--r-- 1 root kali 26 May 19 13:51 file1.txt
# chown kali file1.txt
# ls -l file1.txt
-rw-r--r-- 1 kali kali 26 May 19 13:51 file1.txt
#
```

## chgrp: Change file group

## ASSESSMENT-1



The screenshot shows a terminal window titled "KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)". The terminal is running on a Kali Linux system. The user has run several commands to add a group named "cybersecurity" with GID 1001, change the ownership of a file named "file1.txt" to this group, and then list the contents of the directory. The terminal also shows the user switching to root and listing files again.

```
(kali㉿kali)-[~]
└─$ sudo addgroup cybersecurity
[sudo] password for kali:
Sorry, try again.
[sudo] password for kali: 
Adding group `cybersecurity' (GID 1001) ...
Done.

(kali㉿kali)-[~]
└─$ sudo chgrp cybersecurity file1.txt
└─$ ls -l file1.txt
-rw-r--r-- 1 kali cybersecurity 26 May 19 13:51 file1.txt
(kali㉿kali)-[~]
└─$ ls -l file1.txt
-rw-r--r-- 1 kali kali 26 May 19 13:51 file1.txt
(kali㉿kali)-[~]
└─$ ls -l file1.txt
-rw-r--r-- 1 kali kali 26 May 19 13:51 file1.txt
(kali㉿kali)-[~]
```

## File Compression and Archiving:

tar: Archive files

Commands:

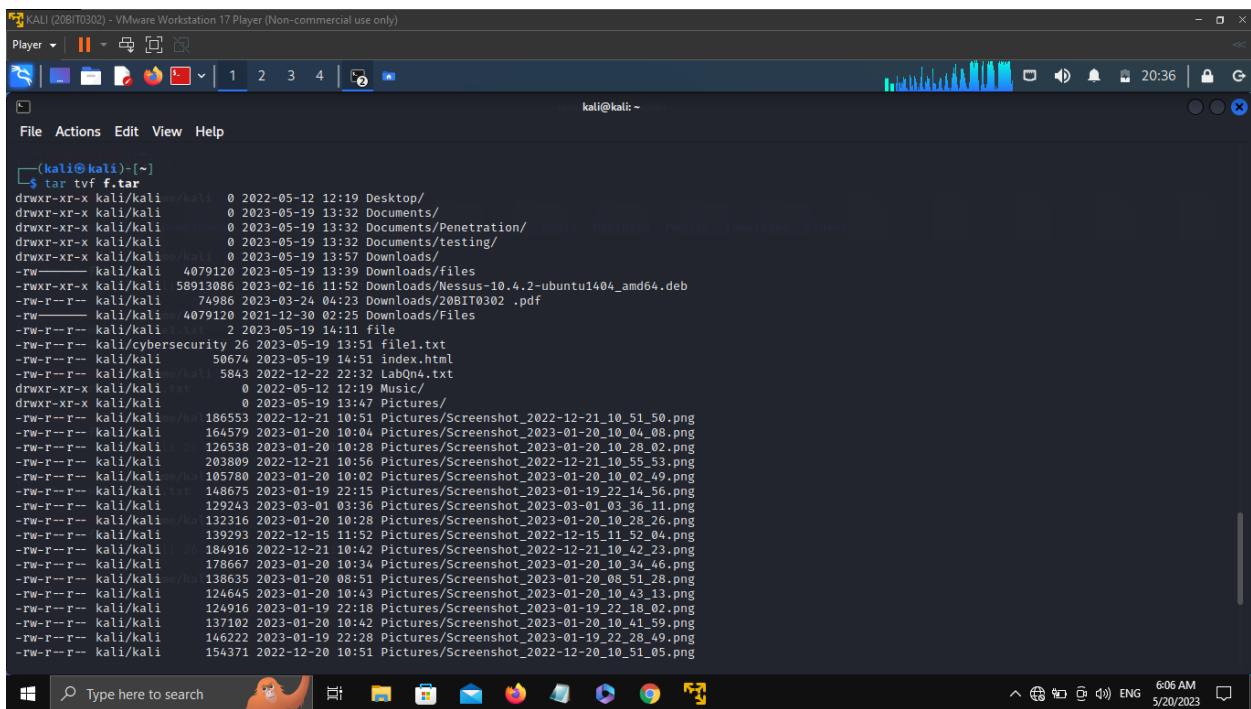
- tar cvf f.tar\*
- tar xvf f.tar
- tar tvf f.tar

```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | ||| | 1 2 3 4 | E 20:32 20:32
File Actions Edit View Help
(kali㉿kali)-[~]
$ tar cvf f.tar *
Desktop/ /home/kali
Documents/ /home/kali
Documents/Penetration/ /home/kali
Documents/testing/ /home/kali
Downloads/ /home/kali
Downloads/files /home/kali
Downloads/Nessus-10.4.2-ubuntu1404_amd64.deb
Downloads/20BIT0302.pdf
Downloads/Files /home/kali
file file1.txt
file1.txt master
tar: f.tar: file is the archive; not dumped
index.html /home/kali
LabQn4.txt /home/kali
Music/
Pictures/ /home/kali
Pictures/Screenshot_2022-12-21_10_51_50.png
Pictures/Screenshot_2023-01-20_10_04_08.png
Pictures/Screenshot_2023-01-20_10_28_02.png
Pictures/Screenshot_2022-12-21_10_55_53.png
Pictures/Screenshot_2023-01-20_10_02_49.png
Pictures/Screenshot_2023-01-19_22_14_56.png
Pictures/Screenshot_2023-03-01_03_36_11.png
Pictures/Screenshot_2023-01-20_10_28_26.png
Pictures/Screenshot_2022-12-15_11_52_04.png
Pictures/Screenshot_2022-12-21_10_42_23.png
Pictures/Screenshot_2023-01-20_10_34_46.png
Pictures/Screenshot_2023-01-20_08_51_28.png
Pictures/Screenshot_2023-01-20_10_43_13.png
Pictures/Screenshot_2023-01-19_22_18_02.png
Pictures/Screenshot_2023-01-20_10_41_59.png
Pictures/Screenshot_2023-01-19_22_28_49.png
Pictures/Screenshot_2023-01-19_22_28_49.png

Windows Type here to search 5/20/2023 6:02 AM ENG
File Actions Edit View Help
(kali㉿kali)-[~]
$ tar xvf f.tar
Desktop/ /home/kali
Documents/ /home/kali
Documents/Penetration/ /home/kali
Documents/testing/ /home/kali
Downloads/ /home/kali
Downloads/files /home/kali
Downloads/Nessus-10.4.2-ubuntu1404_amd64.deb
Downloads/20BIT0302.pdf May 19 13:51 file1.txt
Downloads/Files /home/kali
file file1.txt
file1.txt master
tar: file1.txt: already has file1.txt
tar: file1.txt: file is the archive; not dumped
index.html /home/kali
LabQn4.txt /home/kali
Music/
Pictures/ /home/kali
Pictures/Screenshot_2022-12-21_10_51_50.png
Pictures/Screenshot_2023-01-20_10_04_08.png
Pictures/Screenshot_2023-01-20_10_28_02.png
Pictures/Screenshot_2022-12-21_10_55_53.png
Pictures/Screenshot_2023-01-20_10_02_49.png
Pictures/Screenshot_2023-01-19_22_14_56.png
Pictures/Screenshot_2023-03-01_03_36_11.png
Pictures/Screenshot_2023-01-20_10_28_26.png
Pictures/Screenshot_2022-12-15_11_52_04.png
Pictures/Screenshot_2022-12-21_10_42_23.png
Pictures/Screenshot_2023-01-20_10_34_46.png
Pictures/Screenshot_2023-01-20_08_51_28.png
Pictures/Screenshot_2023-01-20_10_43_13.png
Pictures/Screenshot_2023-01-19_22_18_02.png
Pictures/Screenshot_2023-01-20_10_41_59.png
Pictures/Screenshot_2023-01-19_22_28_49.png
Pictures/Screenshot_2022-12-20_10_51_05.png
Pictures/Screenshot_2023-01-20_10_27_51.png

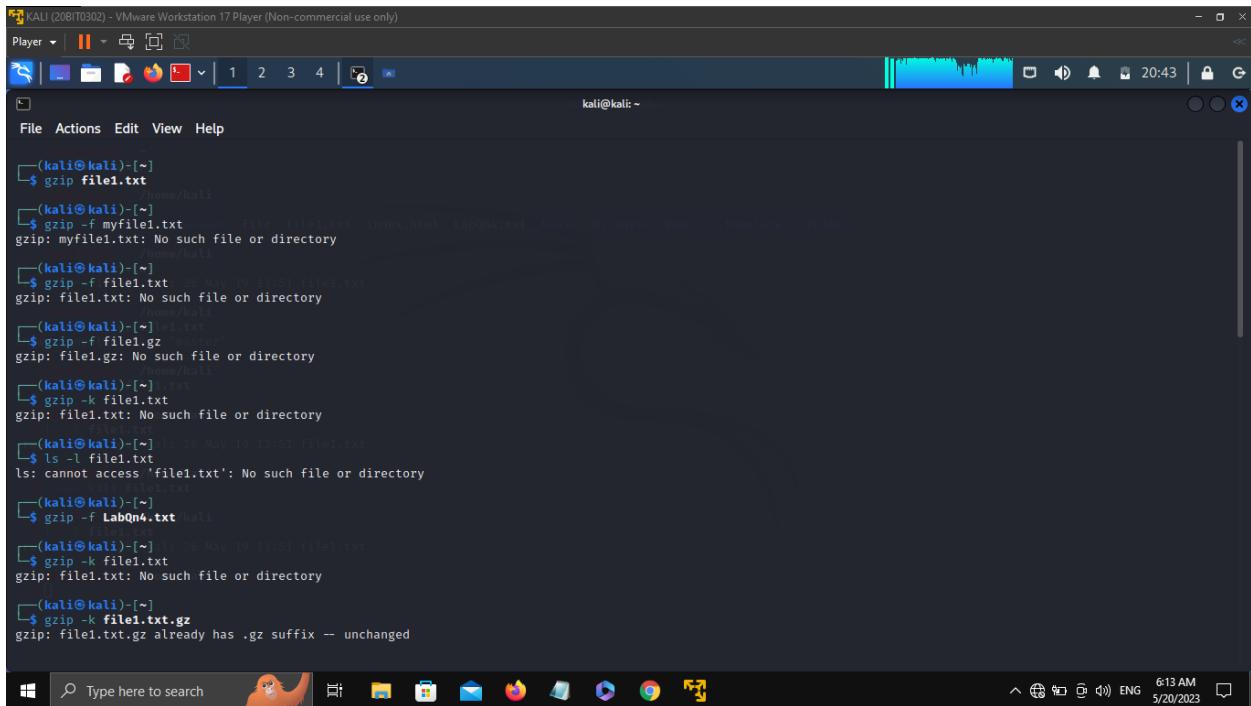
Windows Type here to search 5/20/2023 6:03 AM ENG
```

## ASSESSMENT-1



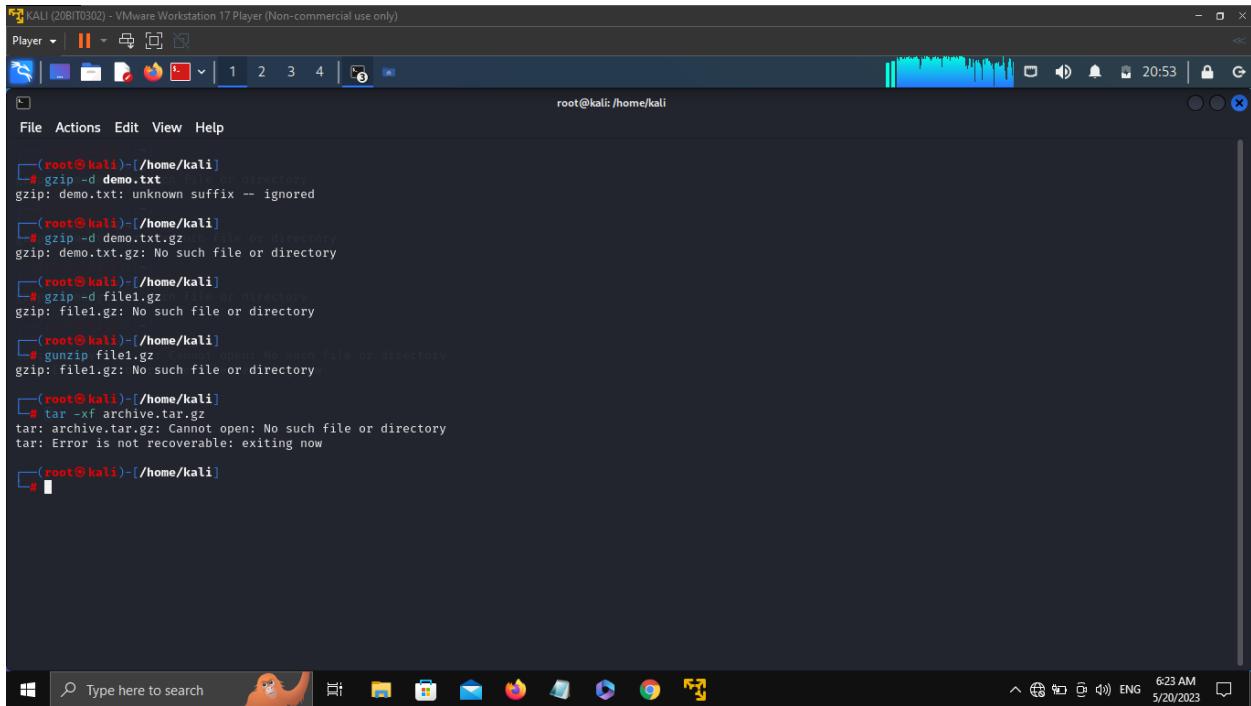
```
(kali㉿kali)-[~]
$ tar tvf f.tar
drwxr-xr-x kali/kali 0 2022-05-12 12:19 Desktop/
drwxr-xr-x kali/kali 0 2023-05-12 13:32 Documents/
drwxr-xr-x kali/kali 0 2023-05-12 13:32 Documents/Penetration/
drwxr-xr-x kali/kali 0 2023-05-12 13:32 Documents/Public/
drwxr-xr-x kali/kali 0 2023-05-12 13:32 Documents/Templates/
drwxr-xr-x kali/kali 0 2023-05-12 13:57 Downloads/
-rw-r--r-- kali/kali 4079120 2023-05-19 13:39 Downloads/files
-rw-r--r-- kali/kali 58913086 2023-02-16 11:52 Downloads/Messus-10.4.2-ubuntu1404_amd64.deb
-rw-r--r-- kali/kali 74986 2023-03-24 04:23 Downloads/20BIT0302.pdf
-rw-r--r-- kali/kali 4079120 2021-12-30 02:25 Downloads/files
-rw-r--r-- kali/kali 2 2023-05-19 14:11 file1
-rw-r--r-- kali/cybersecurity 26 2023-05-19 13:51 file1.txt
-rw-r--r-- kali/kali 50674 2023-05-19 14:51 index.html
-rw-r--r-- kali/kali 5843 2022-12-22 22:32 LabQn4.txt
drwxr-xr-x kali/kali 0 2022-05-12 12:19 Music/
drwxr-xr-x kali/kali 0 2023-05-19 13:47 Pictures/
-rw-r--r-- kali/kali 186553 2022-12-21 10:51 Pictures/Screenshot_2022-12-21_10_51_50.png
-rw-r--r-- kali/kali 164579 2023-01-20 10:04 Pictures/Screenshot_2023-01-20_10_04_08.png
-rw-r--r-- kali/kali 126538 2023-01-20 10:28 Pictures/Screenshot_2023-01-20_10_28_02.png
-rw-r--r-- kali/kali 203809 2022-12-21 10:56 Pictures/Screenshot_2022-12-21_10_55_53.png
-rw-r--r-- kali/kali 105780 2023-01-20 10:02 Pictures/Screenshot_2023-01-20_10_02_49.png
-rw-r--r-- kali/kali 148675 2023-01-19 22:15 Pictures/Screenshot_2023-01-19_22_14_56.png
-rw-r--r-- kali/kali 129243 2023-03-01 03:36 Pictures/Screenshot_2023-03-01_03_36_11.png
-rw-r--r-- kali/kali 132316 2023-01-20 10:28 Pictures/Screenshot_2023-01-20_10_28_26.png
-rw-r--r-- kali/kali 139293 2022-12-15 11:52 Pictures/Screenshot_2022-12-15_11_52_04.png
-rw-r--r-- kali/kali 184916 2022-12-21 10:42 Pictures/Screenshot_2022-12-21_10_42_23.png
-rw-r--r-- kali/kali 178667 2023-01-20 10:34 Pictures/Screenshot_2023-01-20_10_34_46.png
-rw-r--r-- kali/kali 138635 2023-01-20 08:51 Pictures/Screenshot_2023-01-20_08_51_28.png
-rw-r--r-- kali/kali 124645 2023-01-20 10:43 Pictures/Screenshot_2023-01-20_10_43_13.png
-rw-r--r-- kali/kali 124916 2023-01-19 22:18 Pictures/Screenshot_2023-01-19_22_18_02.png
-rw-r--r-- kali/kali 137102 2023-01-20 10:42 Pictures/Screenshot_2023-01-20_10_41_59.png
-rw-r--r-- kali/kali 146222 2023-01-19 22:28 Pictures/Screenshot_2023-01-19_22_28_49.png
-rw-r--r-- kali/kali 154371 2022-12-20 10:51 Pictures/Screenshot_2022-12-20_10_51_05.png
```

### gzip: Compress files



```
(kali㉿kali)-[~]
$ gzip file1.txt
gzip: file1.txt: No such file or directory
(kali㉿kali)-[~]
$ gzip -f myfile1.txt
gzip: myfile1.txt: No such file or directory
(kali㉿kali)-[~]
$ gzip -f file1.txt
gzip: file1.txt: No such file or directory
(kali㉿kali)-[~]
$ gzip -f file1.gz
gzip: file1.gz: No such file or directory
(kali㉿kali)-[~]
$ gzip -f file1.txt.gz
gzip: file1.txt.gz: No such file or directory
(kali㉿kali)-[~]
$ ls -l file1.txt
ls: cannot access 'file1.txt': No such file or directory
(kali㉿kali)-[~]
$ gzip -f LabQn4.txt/kali
(kali㉿kali)-[~]
$ gzip -f file1.txt.txt
gzip: file1.txt.txt: No such file or directory
(kali㉿kali)-[~]
$ ls -l file1.txt
ls: cannot access 'file1.txt': No such file or directory
(kali㉿kali)-[~]
$ gzip -f LabQn4.txt/kali
(kali㉿kali)-[~]
$ gzip -f file1.txt.txt
gzip: file1.txt.txt: No such file or directory
(kali㉿kali)-[~]
$ gzip -f file1.txt.gz
gzip: file1.txt.gz already has .gz suffix -- unchanged
```

## unzip: Extract files from a ZIP archive



```
[root@kali:~/home/kali]
# gzip -d demo.txt
gzip: demo.txt: unknown suffix -- ignored

[root@kali:~/home/kali]
# gzip -d demo.txt.gz
gzip: demo.txt.gz: No such file or directory

[root@kali:~/home/kali]
# gzip -d file1.gz
gzip: file1.gz: No such file or directory

[root@kali:~/home/kali]
# gunzip file1.gz
gunzip: file1.gz: cannot open: No such file or directory
gzip: file1.gz: No such file or directory

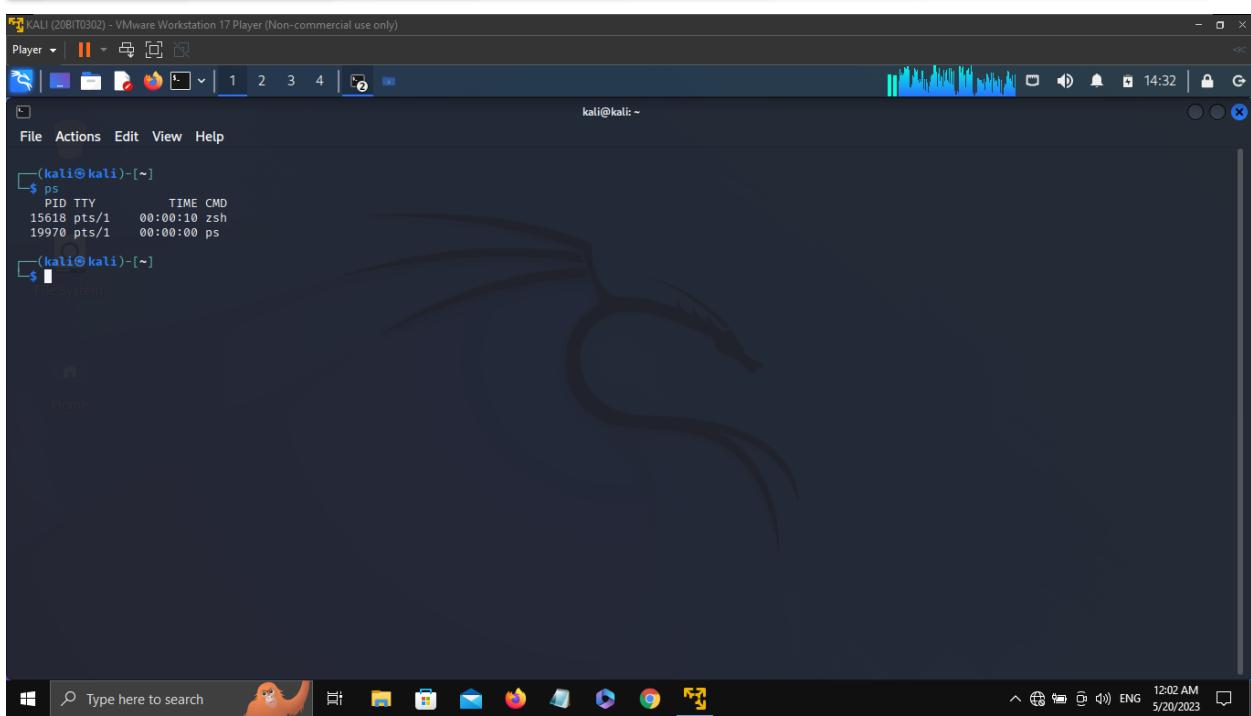
[root@kali:~/home/kali]
# tar -xf archive.tar.gz
tar: archive.tar.gz: Cannot open: No such file or directory
tar: Error is not recoverable: exiting now

[root@kali:~/home/kali]
#
```

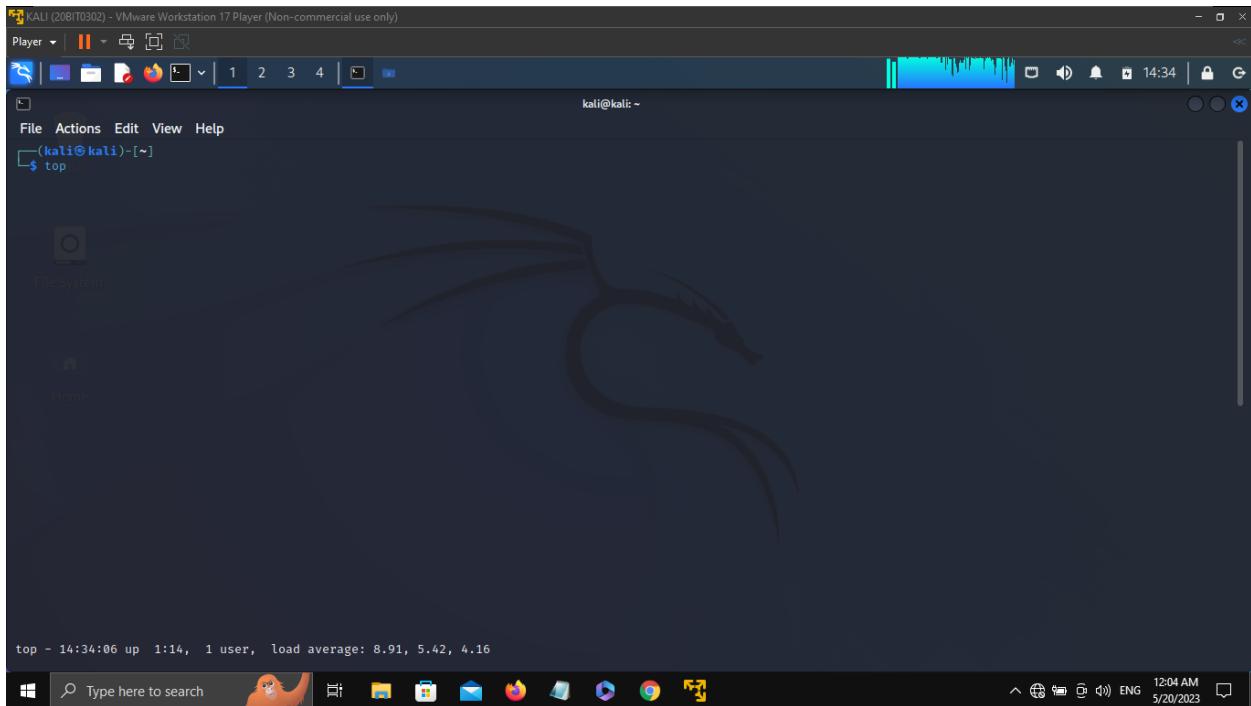
## Process Management:

ps: List running processes

## ASSESSMENT-1



top: Display real-time system information and processes



```

top - 14:34:19 up 1:14, 1 user, load average: 7.97, 5.39, 4.17
Tasks: 183 total, 1 running, 182 sleeping, 0 stopped, 0 zombie
%CPU(s): 44.4 us, 18.7 sy, 0.0 ni, 1.3 id, 23.5 wa, 0.0 hi, 2.1 si, 0.0 st
Mib Mem : 1973.0 total, 69.2 free, 807.5 used, 1096.3 buff/cache
Mib Swap: 975.0 total, 757.1 free, 217.9 used, 970.2 avail Mem

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
564 root 20 0 707164 227560 4984 S 72.6 11.3 79:14.57 nessusd
604 root 20 0 407196 96808 49340 S 36.0 4.8 4:18.39 Xorg
1017 kali 20 0 207292 24796 13824 S 6.9 1.2 3:02.18 panel-13-cpugra
147 root 20 -20 0 0 0 I 6.3 0.0 0:48.80 kworker/1:1H-kblockd
20181 kali 20 0 427196 95556 77084 S 4.3 4.7 0:01.87 qterminal
497 root 20 0 239532 7968 5108 S 4.0 0.4 0:17.64 vmtoolsd
970 kali 20 0 926084 58252 49220 S 2.3 2.9 0:54.39 xfwm4
13 root 20 0 0 0 I 1.3 0.0 0:51.86 rcu_preempt
1019 kali 20 0 295884 21316 14332 S 1.3 1.1 0:39.87 panel-15-gemmon
13998 root 20 0 0 0 D 1.3 0.0 0:02.51 kworker/u64:2+flush-8:0
12 root 20 0 0 0 S 0.3 0.0 0:03.17 ksoftirqd/0
19 root 20 0 0 0 S 0.3 0.0 0:02.63 ksoftirqd/1
957 kali 20 0 167036 9436 6516 S 0.3 0.5 0:00.91 at-sp12-registr
1020 kali 20 0 662064 23712 16452 S 0.3 1.2 0:09.66 panel-16-pulsea
1066 kali 20 0 313672 43644 18136 S 0.3 2.2 0:22.17 vmtoolsd
2033 kali 20 0 10240 3596 3048 R 0.3 0.2 0:00.11 top
1 root 20 0 165556 9352 6468 S 0.0 0.5 0:05.16 systemd
2 root 20 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
6 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/0:0H-events_highpri
8 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 mm_percpu_wq
9 root 20 0 0 0 0 S 0.0 0.0 0:00.00 rCU_tasks_kthre
10 root 20 0 0 0 0 S 0.0 0.0 0:00.00 rCU_tasks_rude_
11 root 20 0 0 0 0 S 0.0 0.0 0:00.00 rCU_tasks_trace
14 root rt 0 0 0 0 S 0.0 0.0 0:00.12 migration/0
16 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/0
17 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/1

Windows Taskbar: Type here to search, File Explorer, Task View, Start, Taskbar Icons, Taskbar Buttons, Taskbar Notifications, Taskbar Clock, Taskbar Language, Taskbar Date, Taskbar Version: 5/20/2023

```

## kill: Terminate processes

```

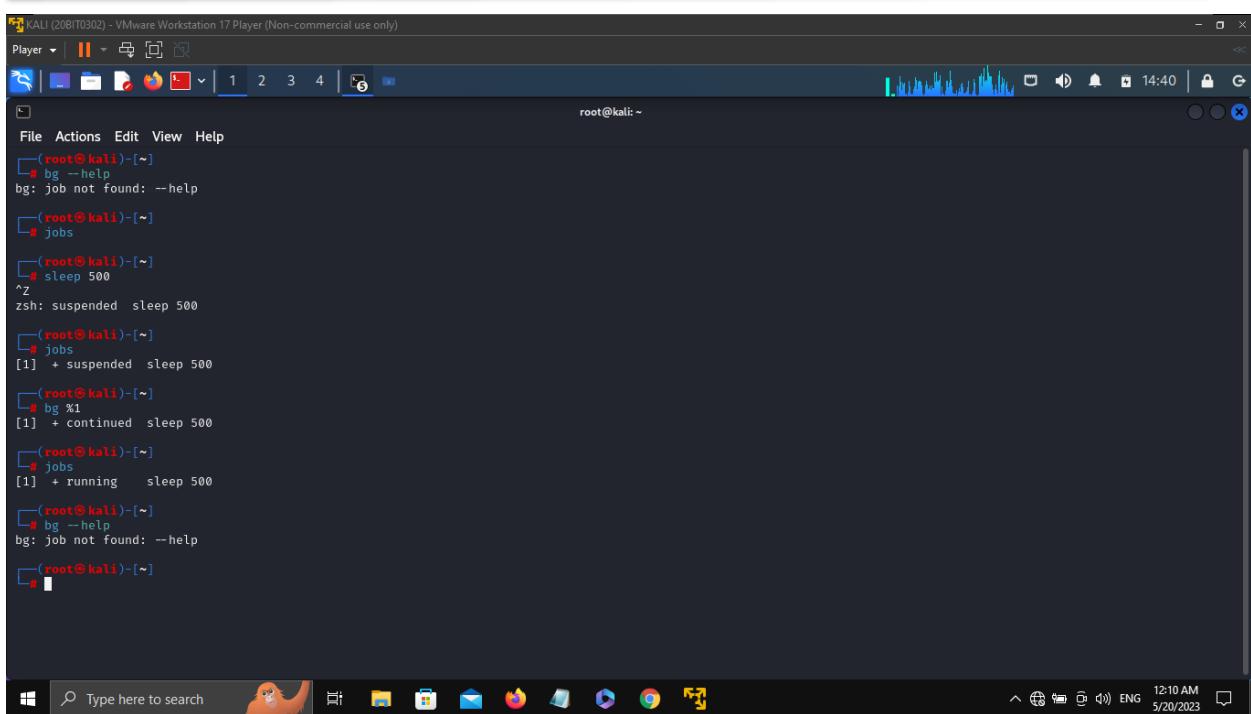
(kali㉿kali)-[~]
└$ ps
  PID TTY      TIME CMD
 4322 pts/0    00:00:00 zsh
 4386 pts/0    00:00:00 ps

(kali㉿kali)-[~]
└$ kill -CONT 4386
kill: kill 4386 failed: no such process
(kali㉿kali)-[~]
└$ kill -CONT 4322

```

## bg: Run processes in the background

## ASSESSMENT-1



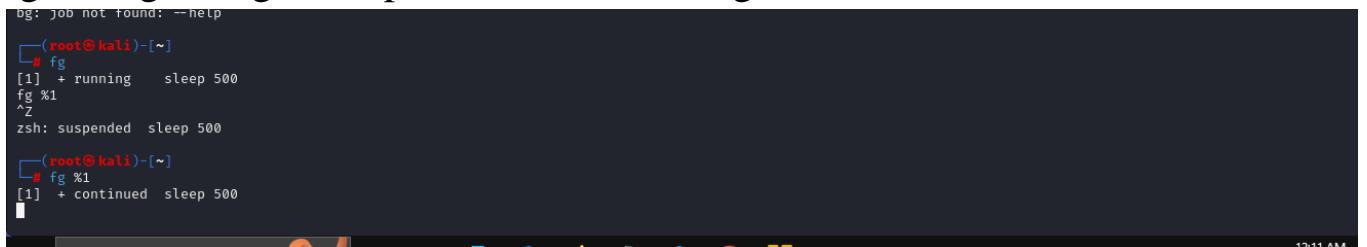
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)

```
root@kali:~# bg --help
bg: job not found: --help

root@kali:~# jobs
root@kali:~# sleep 500
^Z
zsh: suspended sleep 500
root@kali:~# jobs
[1] + suspended sleep 500
root@kali:~# bg %1
[1] + continued sleep 500
root@kali:~# jobs
[1] + running sleep 500
root@kali:~# bg --help
bg: job not found: --help

root@kali:~#
```

**fg:** Bring background processes to the foreground



```
bg: job not found: --help
root@kali:~# fg
[1] + running sleep 500
fg %1
^Z
zsh: suspended sleep 500
root@kali:~# fg %1
[1] + continued sleep 500
root@kali:~#
```

## 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

```
(kali㉿kali)-[~]
$ uname -nrm
Linux

(kali㉿kali)-[~]
$ df -h
Filesystem      1K-blocks      Used Available Use% Mounted on
udev              966200         0   966200  0% /dev
tmpfs             202040     1176   200864  1% /run
/dev/sda1        81000912 15299908 61540392 20% /
tmpfs             1010184         0  1010184  0% /dev/shm
tmpfs             5120          0    5120  0% /run/lock
tmpfs             202036       76   201960  1% /run/user/1000

(kali㉿kali)-[~]
$ free
total  suspended total  used      free      shared  buff/cache  available
Mem:      2020372      0  894892  68028  22188  1057452  915556
Swap: 998396      0 245568  752828

(kali㉿kali)-[~] sleep 500
[1]+ 14:42:54 up 1:23, 1 user,  load average: 3.96, 3.67, 3.75
(kali㉿kali)-[~]
$ uptime
14:42:54 up 1:23, 1 user,  load average: 3.96, 3.67, 3.75

(kali㉿kali)-[~]
$ who
kali :0 tty7 2023-05-19 13:21 (:0)

(kali㉿kali)-[~]
$ w
14:43:05 up 1:23, 1 user,  load average: 3.96, 3.68, 3.76
USER   TTY   FROM           LOGIN@  IDLE   JCPU   PCPU WHAT
kali   :0           13:21   1:22m  4:49   3.12s xfce4-session
```

## Networking:

ifconfig: Configure network interfaces

## **ASSESSMENT-1**

Kali (20BIT032) - VMware Workstation 17 Player (Non-commercial use only)

Player | || | ↻

File Actions Edit View Help

```
(kali㉿kali)-[~]
$ ifconfig
eth0: flags=4163UP,BROADCAST,RUNNING,MULTICAST mtu 1500
        inet 192.168.50.128 netmask 255.255.255.0 broadcast 192.168.50.255
              inet6 fe80::20c:29ff:feb1:d154 prefixlen 64 scopeid 0x20<link>
                ether 00:0c:29:b1:d154 txqueuelen 1000 (Ethernet)
                  RX packets 177 bytes 12888 (12.5 kB)
                  RX errors 0 dropped 0 overruns 0 frame 0
                  TX packets 2218 bytes 194314 (189.7 kB)
                  TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73UP,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 0 bytes 0 (0.0 B)
                  RX errors 0 dropped 0 overruns 0 frame 0
                  TX packets 0 bytes 0 (0.0 B)
                  TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[...]
(kali㉿kali)-[~]
$ [ ] suspended sleep 500
fg: job not found: --help
```

ping: Send ICMP echo requests to a network host

```
(kali㉿kali)-[~] kali@kali: ~
└─$ ping 192.168.50.129
PING 192.168.50.129 (192.168.50.129) 56(84) bytes of data.
64 bytes from 192.168.50.129: icmp_seq=1 ttl=64 time=3.49 ms
64 bytes from 192.168.50.129: icmp_seq=2 ttl=64 time=0.645 ms
64 bytes from 192.168.50.129: icmp_seq=3 ttl=64 time=0.898 ms
64 bytes from 192.168.50.129: icmp_seq=4 ttl=64 time=0.735 ms
64 bytes from 192.168.50.129: icmp_seq=5 ttl=64 time=0.732 ms
64 bytes from 192.168.50.129: icmp_seq=6 ttl=64 time=0.646 ms
64 bytes from 192.168.50.129: icmp_seq=7 ttl=64 time=0.660 ms
64 bytes from 192.168.50.129: icmp_seq=8 ttl=64 time=1.50 ms
64 bytes from 192.168.50.129: icmp_seq=9 ttl=64 time=1.81 ms
64 bytes from 192.168.50.129: icmp_seq=10 ttl=64 time=0.674 ms
64 bytes from 192.168.50.129: icmp_seq=11 ttl=64 time=0.759 ms
64 bytes from 192.168.50.129: icmp_seq=12 ttl=64 time=0.725 ms
64 bytes from 192.168.50.129: icmp_seq=13 ttl=64 time=0.735 ms
64 bytes from 192.168.50.129: icmp_seq=14 ttl=64 time=0.695 ms
64 bytes from 192.168.50.129: icmp_seq=15 ttl=64 time=0.691 ms
64 bytes from 192.168.50.129: icmp_seq=16 ttl=64 time=0.778 ms
64 bytes from 192.168.50.129: icmp_seq=17 ttl=64 time=1.80 ms
64 bytes from 192.168.50.129: icmp_seq=18 ttl=64 time=8.23 ms
64 bytes from 192.168.50.129: icmp_seq=19 ttl=64 time=0.743 ms
64 bytes from 192.168.50.129: icmp_seq=20 ttl=64 time=0.757 ms
64 bytes from 192.168.50.129: icmp_seq=21 ttl=64 time=0.725 ms
64 bytes from 192.168.50.129: icmp_seq=22 ttl=64 time=5.47 ms
64 bytes from 192.168.50.129: icmp_seq=23 ttl=64 time=1.02 ms
64 bytes from 192.168.50.129: icmp_seq=24 ttl=64 time=0.968 ms
64 bytes from 192.168.50.129: icmp_seq=25 ttl=64 time=0.672 ms
64 bytes from 192.168.50.129: icmp_seq=26 ttl=64 time=0.723 ms
64 bytes from 192.168.50.129: icmp_seq=27 ttl=64 time=1.40 ms
64 bytes from 192.168.50.129: icmp_seq=28 ttl=64 time=0.802 ms
64 bytes from 192.168.50.129: icmp_seq=29 ttl=64 time=1.19 ms
64 bytes from 192.168.50.129: icmp_seq=30 ttl=64 time=0.697 ms
64 bytes from 192.168.50.129: icmp_seq=31 ttl=64 time=0.722 ms
64 bytes from 192.168.50.129: icmp_seq=32 ttl=64 time=0.985 ms
```

## ssh: Securely connect to a remote system

```
(kali㉿kali)-[~]
└─$ ssh
usage: ssh [-46AaCfGgKkMNnqsTtVvXXy] [-B bind_interface]
           [-b bind_address] [-c cipher_spec] [-D [bind_address:]port]
           [-E log_file] [-e escape_char] [-F configfile] [-I pkcs11]
           [-i identity_file] [-J [user@]host[:port]] [-L address]
           [-l login_name] [-m mac_spec] [-O ctl_cmd] [-o option] [-p port]
           [-Q query_option] [-R address] [-S ctl_path] [-W host:port]
           [-w local_tun[:remote_tun]] destination [command [argument ... ]]

(kali㉿kali)-[~]
└─$ ssh --version OpenSSH_8.0p1
unknown option --
usage: ssh [-46AaCfGgKkMNnqsTtVvXXy] [-B bind_interface]
           [-b bind_address] [-c cipher_spec] [-D [bind_address:]port]
           [-E log_file] [-e escape_char] [-F configfile] [-I pkcs11]
           [-i identity_file] [-J [user@]host[:port]] [-L address]
           [-l login_name] [-m mac_spec] [-O ctl_cmd] [-o option] [-p port]
           [-Q query_option] [-R address] [-S ctl_path] [-W host:port]
           [-w local_tun[:remote_tun]] destination [command [argument ... ]]

(kali㉿kali)-[~]
└─$
```

## scp: Securely copy files between systems

```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || | ↻
File Actions Edit View Help
(kali㉿kali)-[~]
└─$ scp
usage: scp [-346ABCOpqRsTv] [-c cipher] [-D sftp_server_path] [-F ssh_config]
           [-i identity_file] [-J destination] [-l limit]
           [-o ssh_option] [-P port] [-S program] source ... target
(kali㉿kali)-[~]
```

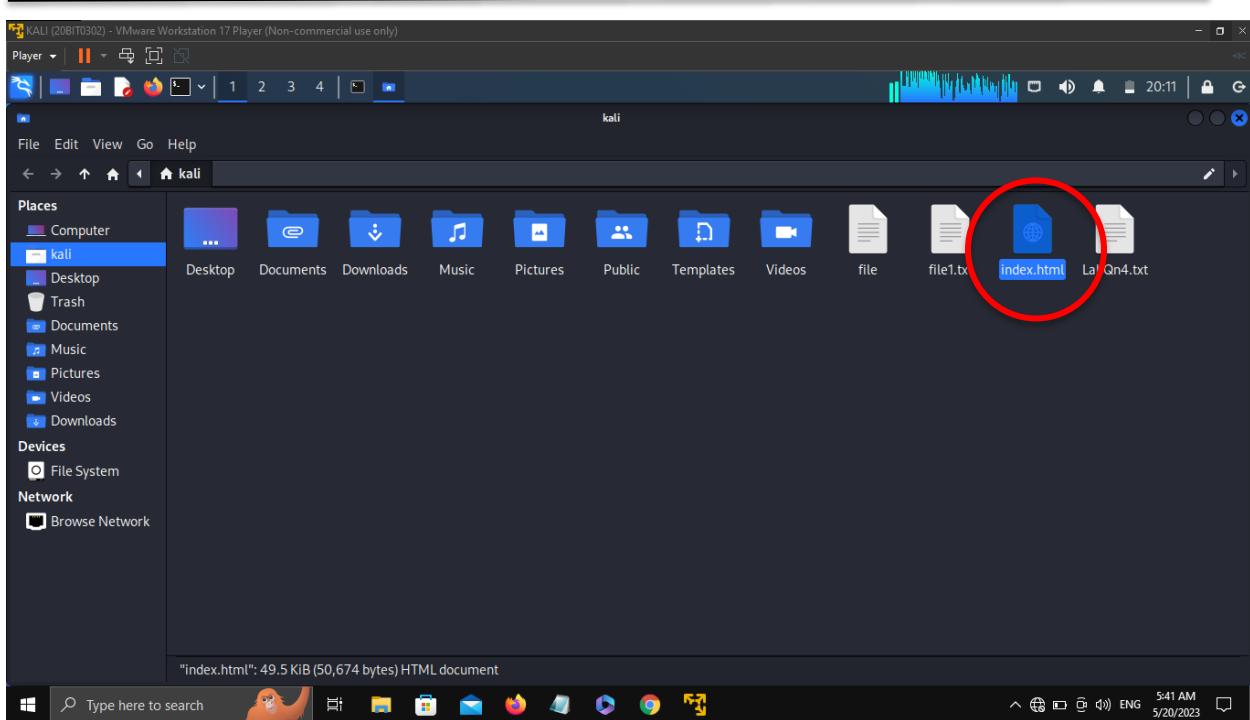
## wget: Download files from the web

```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || | ↻
File Actions Edit View Help
(kali㉿kali)-[~]
└─$ wget file:///usr/share/kali-defaults/web/homepage.html
file:///usr/share/kali-defaults/web/homepage.html: Unsupported scheme 'file'.
(kali㉿kali)-[~]
└─$ wget https://www.facebook.com/
--2023-05-19 14:51:38--  https://www.facebook.com/
Resolving www.facebook.com (www.facebook.com)... 157.240.228.35, 2a03:2880:f168:81:face:b00c:0:25de
Connecting to www.facebook.com (www.facebook.com)|157.240.228.35|:443... connected.
HTTP request sent, awaiting response ... 302 Found
Location: https://www.facebook.com/unsupportedbrowser [following]
--2023-05-19 14:51:39--  https://www.facebook.com/unsupportedbrowser
Reusing existing connection to www.facebook.com:443.
HTTP request sent, awaiting response ... 200 OK
Length: unspecified [text/html]
Saving to: 'index.html'

index.html                                     [ =>                               ] 49.49K  --.-KB/s  in 0.02s
2023-05-19 14:51:39 (2.70 MB/s) - 'index.html' saved [50674]
```

Downloaded File location:

## ASSESSMENT-1



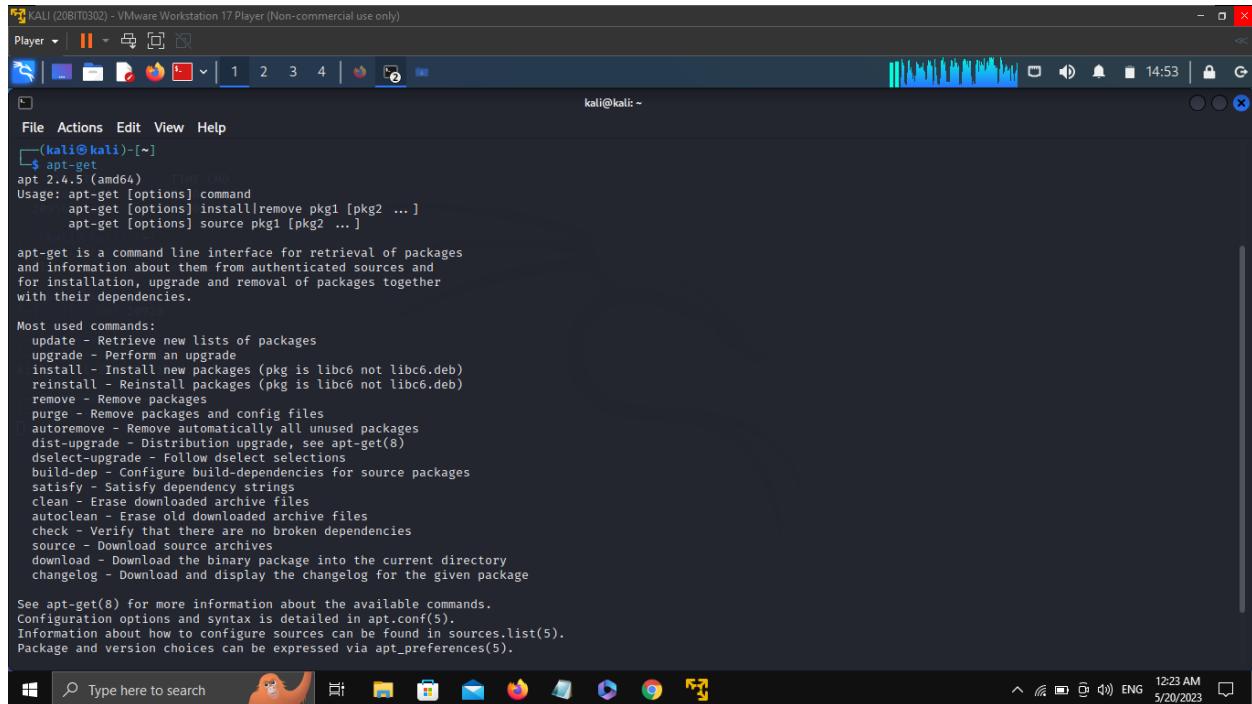
## System Administration:

**sudo:** Execute commands with superuser privileges

```
(kali㉿kali)-[~]
$ sudo
usage: sudo -h | -k | -k | -v
usage: sudo -v [-ABknS] [-g group] [-h host] [-p prompt] [-u user]
usage: sudo -l [-ABknS] [-g group] [-h host] [-p prompt] [-U user] [-u user] [command]
usage: sudo [-ABbhknPS] [-r role] [-t type] [-C num] [-D directory] [-g group] [-h host] [-p prompt] [-R directory] [-T timeout] [-u user] [VAR=value] [-i|-s]
      [<command>]
usage: sudo -e [-ABknS] [-r role] [-t type] [-C num] [-D directory] [-g group] [-h host] [-p prompt] [-R directory] [-T timeout] [-u user] file ...
(kali㉿kali)-[~]
```

A screenshot of a terminal window on Kali Linux. The terminal prompt is '(kali㉿kali)-[~]'. The user types the command 'sudo' and receives a usage message for the 'sudo' command, which includes options for help, version, privilege escalation, listing users, running a command, and editing configuration files.

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



```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || | 1 2 3 4 | 
File Actions Edit View Help
(kali㉿kali)-[~]
$ apt-get
apt 2.4.5 (amd64)
Usage: apt-get [options] command
      apt-get [options] install|remove pkg1 [pkg2 ...]
      apt-get [options] source pkg1 [pkg2 ...]

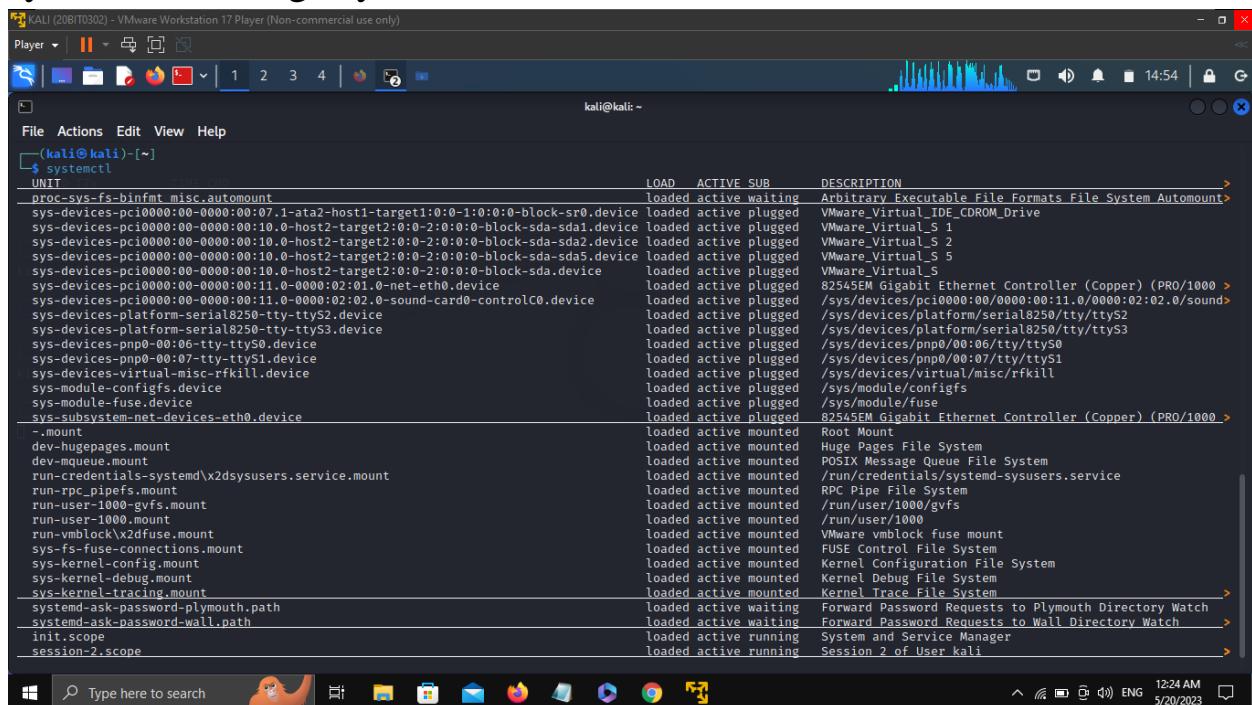
apt-get is a command line interface for retrieval of packages
and information about them from authenticated sources
and for installation, upgrade and removal of packages together
with their dependencies.

Most used commands:
  update - Retrieve new lists of packages
  upgrade - Perform an upgrade
  install - Install new packages (pkg is libc6 not libc6.deb)
  reinstall - Reinstall packages (pkg is libc6 not libc6.deb)
  remove - Remove packages
  purge - Remove packages and config files
  autoremove - Remove automatically all unused packages
  dist-upgrade - Distribution upgrade, see apt-get(8)
  dselect-upgrade - Follow dselect selections
  build-dep - Configure build-dependencies for source packages
  satisfy - Satisfy dependency strings
  clean - Erase downloaded archive files
  autoclean - Erase old downloaded archive files
  check - Verify that there are no broken dependencies
  source - Download source archives
  download - Download the binary package into the current directory
  changelog - Download and display the changelog for the given package

See apt-get(8) for more information about the available commands.
Configuration options and syntax is detailed in apt.conf(5).
Information about how to configure sources can be found in sources.list(5).
Package and version choices can be expressed via apt_preferences(5).

Windows Taskbar (bottom):
Type here to search (Search icon) (File Explorer icon) (Task View icon) (Start button) (Recycle Bin icon) (Mail icon) (Photos icon) (Movies & TV icon) (Music icon) (Google Chrome icon) (Microsoft Edge icon) (Firefox icon) (Terminal icon) (System tray icons: battery, signal, volume, clock, lock, etc.)
```

## systemctl: Manage system services



```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || | 1 2 3 4 | 
File Actions Edit View Help
(kali㉿kali)-[~]
$ systemctl
UNIT                                     LOAD ACTIVE SUB-DESCRIPTION
proc-sys-fs-binfmt_misc.automount          loaded active waiting Arbitrary Executable File Formats File System Automount
sys-devices-pci0000:00-0000:00:07.1-ata2-host1-target1:0:0-1:0:0-block-sr0.device    loaded active plugged   VMware_Virtual_IDE_CDROM_Drive
sys-devices-pci0000:00-0000:00:10.0-host2-target2:0:0-2:0:0:0-block-sda-sd1.device    loaded active plugged   VMware_Virtual_S_1
sys-devices-pci0000:00-0000:00:10.0-host2-target2:0:0-2:0:0:0-block-sda-sd5.device    loaded active plugged   VMware_Virtual_S_2
sys-devices-pci0000:00-0000:00:10.0-host2-target2:0:0-2:0:0:0-block-sda-sd4.device    loaded active plugged   VMware_Virtual_S_5
sys-devices-pci0000:00-0000:00:11.0-0000:02:01.0-net-eth0.device                   loaded active plugged   82545EM Gigabit Ethernet Controller (Copper) (PRO/1000 >
sys-devices-pci0000:00-0000:00:11.0-0000:02:02.0-sound-card0-control0.device       loaded active plugged   /sys/devices/pci0000:00/0000:00:11.0/0000:02:02.0/sound
sys-devices-platform-serial8250-tty-ttyS2.device                                loaded active plugged   /sys/devices/platform/serial8250/tty/ttyS2
sys-devices-platform-serial8250-tty-ttyS3.device                                loaded active plugged   /sys/devices/platform/serial8250/tty/ttyS3
sys-devices-pnp0-00:06-tty-ttyS0.device                                         loaded active plugged   /sys/devices/pnp0/00:06/tty/ttyS0
sys-devices-pnp0-00:07-tty-ttyS1.device                                         loaded active plugged   /sys/devices/pnp0/00:07/tty/ttyS1
sys-devices-virtual-misc-rfkill.device                                         loaded active plugged   /sys/devices/virtual/misc/rfkill
sys-module-configs.device                                                 loaded active plugged   /sys/module/configfs
sys-module-fuse.device                                                 loaded active plugged   /sys/module/fuse
sys-subsystem-net-devices-eth0.device                                         loaded active plugged   82545EM Gigabit Ethernet Controller (Copper) (PRO/1000 >
- .mount                                         loaded active mounted  Root Mount
dev-hugepages.mount                                         loaded active mounted  Huge Pages File System
dev-mqueue.mount                                         loaded active mounted  POSIX Message Queue File System
run-credentials-systemd\x2dsysusers.service.mount          loaded active mounted  /run/credentials/systemd-sysusers.service
run-rpc_pipes.mount                                         loaded active mounted  RPC Pipe File System
run-user-1000-gvfs.mount                                     loaded active mounted  /run/user/1000/gvfs
run-user-1000.mount                                         loaded active mounted  /run/user/1000
run-vmblock\x2dfuse.mount                                    loaded active mounted  VMware_vmblock fuse mount
sys-fs-fuse-connections.mount                               loaded active mounted  FUSE Control File System
sys-kernel-config.mount                                    loaded active mounted  Kernel Configuration File System
sys-kernel-debug.mount                                    loaded active mounted  Kernel Debug File System
sys-kernel-tracing.mount                                 loaded active mounted  Kernel Trace File System
systemd-ask-password-plymouth.path                         loaded active waiting Forward Password Requests to Plymouth Directory Watch
systemd-ask-password-wall.path                           loaded active waiting Forward Password Requests to Wall Directory Watch
init.scope                                              loaded active running System and Service Manager
session-2.scope                                         loaded active running Session 2 of User kali

Windows Taskbar (bottom):
Type here to search (Search icon) (File Explorer icon) (Task View icon) (Start button) (Recycle Bin icon) (Mail icon) (Photos icon) (Movies & TV icon) (Music icon) (Google Chrome icon) (Microsoft Edge icon) (Firefox icon) (Terminal icon) (System tray icons: battery, signal, volume, clock, lock, etc.)
```

## **ASSESSMENT-1**

## crontab: Schedule recurring tasks

A screenshot of a Kali Linux terminal window titled "KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)". The terminal shows the user navigating through a crontab setup, selecting the nano editor, and attempting to install Firefox via yum. The terminal window includes a title bar, menu bar, toolbar, status bar, and a scrollable text area.

## **useradd: Add a new user**

KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial Use only)

Player | || | ☰ | 1 2 3 4 | ☰ |

kali@kali: ~

**File Actions Edit View Help**

```
└$ useradd
Usage: useradd [options] LOGIN
      useradd -D
      useradd -D [options]
      ...
Options:
  --badnames          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
  -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
  -K, --key KEY=VALUE          override /etc/login.defs defaults
  -l, --no-log-init            do not add the user to the lastlog and
                              faillog databases
  -m, --create-home           create the user's home directory
  -M, --no-create-home         do not create the user's home directory
  -N, --no-user-group          do not create a group with the same name as
                              the user
  -o, --non-unique             allow to create users with duplicate
                              (non-unique) UID
  -p, --password PASSWORD     encrypted password of the new account
  -r, --system                 create a system account
  -R, --root CHROOT_DIR        directory to chroot into
  -P, --prefix PREFIX_DIR      prefix directory where are located the /etc/* files
  -s, --shell SHELL             login shell of the new account
```

Type here to search  

File Explorer  My Computer  Mail  Firefox  File History  Photos  Videos  Chrome  Edge 

## **passwd: Change user password**

```
[kali㉿kali)-[~]
$ passwd
Changing password for kali.
Current password: [REDACTED]
```

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.

**20BCI0196**

**SANDHIYA N**

**ASSESSMENT-1**

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Make this in doucement format and send them with images