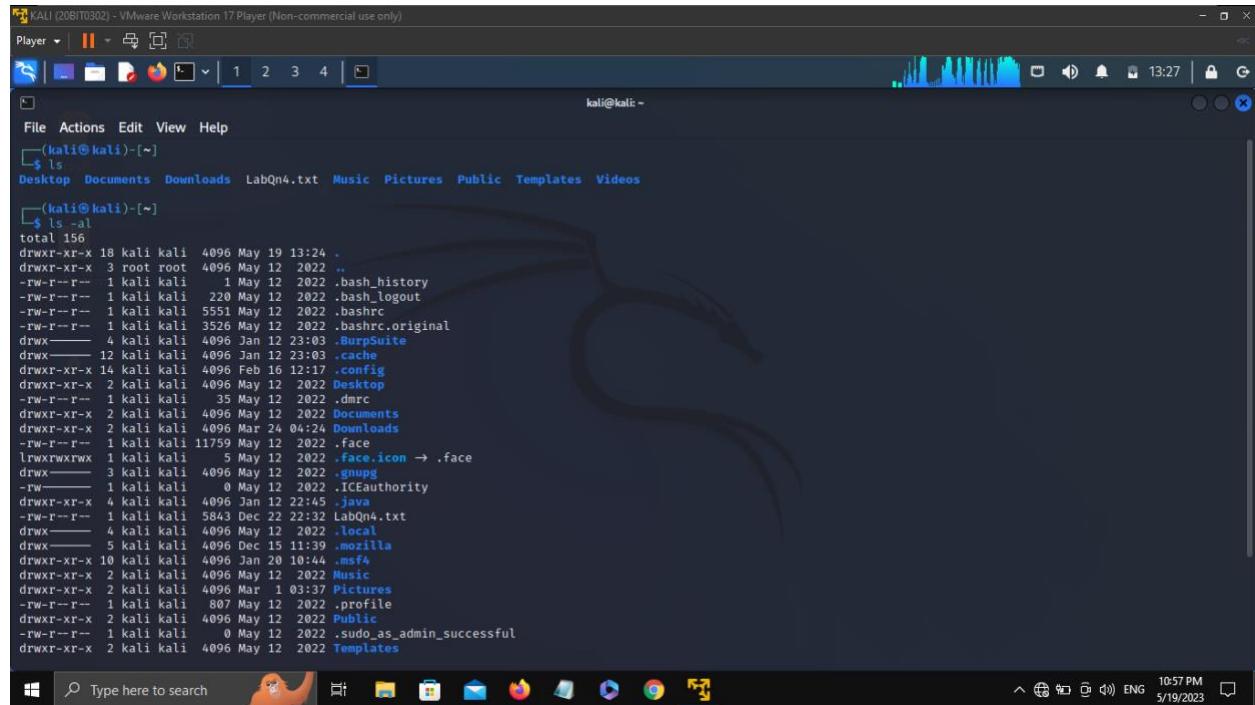


Title: Linux Command List Assessment

Name : Munilakshmi G J
Reg: no : 20BCI0190

File and Directory Operations:

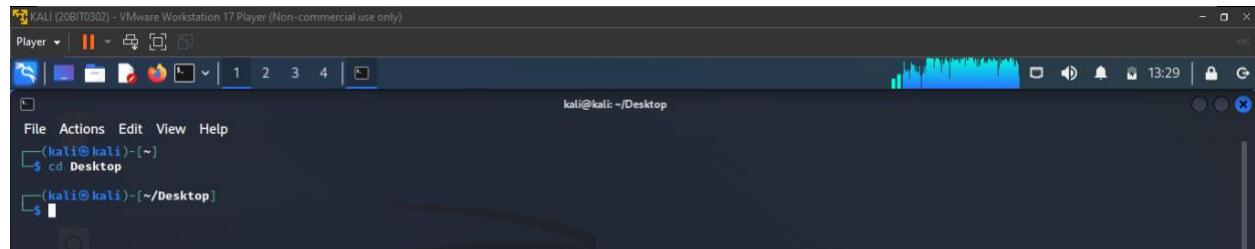
ls: List files and directories



```
KALI (208IT03Q) - VMware Workstation 17 Player (Non-commercial use only)
Player | II | ⌂ | ☰ | 1 2 3 4 | ☰
File Actions Edit View Help
(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 .BurgSuite
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

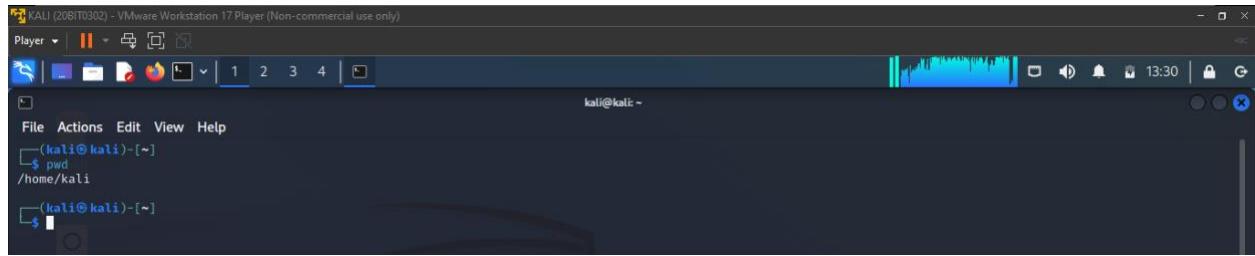
Windows Taskbar: Type here to search, File Explorer, Task View, Start, Taskbar icons, Network, Sound, Volume, Battery, ENG, 10:57 PM, 5/19/2023
```

cd: Change directory



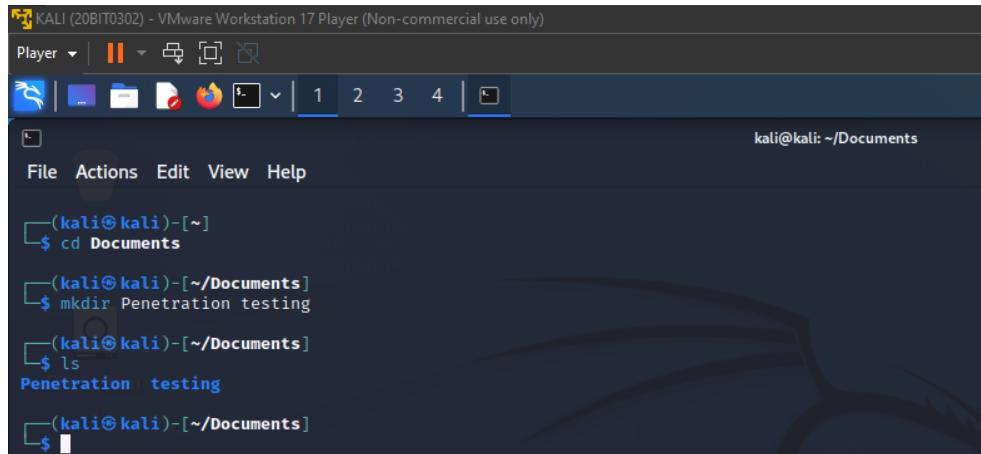
```
KALI (208IT03Q) - VMware Workstation 17 Player (Non-commercial use only)
Player | II | ⌂ | ☰ | 1 2 3 4 | ☰
File Actions Edit View Help
(kali㉿kali)-[~]
└$ cd Desktop
(kali㉿kali)-[~/Desktop]
└$
```

pwd: Print working directory



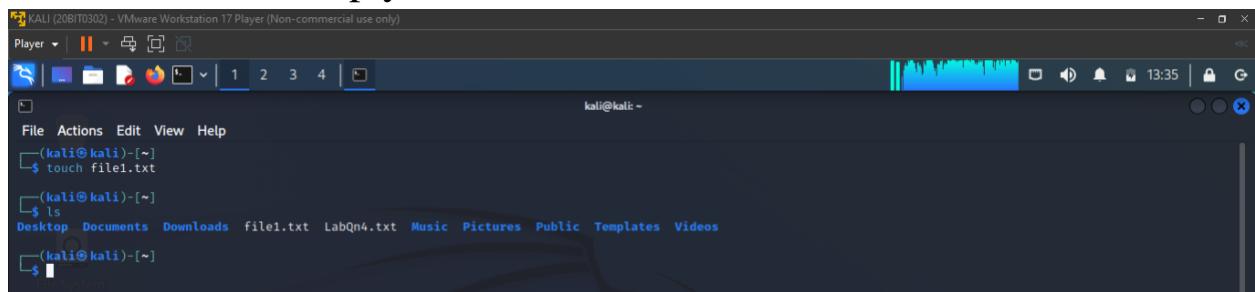
```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || | 1 2 3 4 | 
File Actions Edit View Help
(kali㉿kali)-[~]
$ pwd
/home/kali
(kali㉿kali)-[~]
$
```

mkdir: Make directory



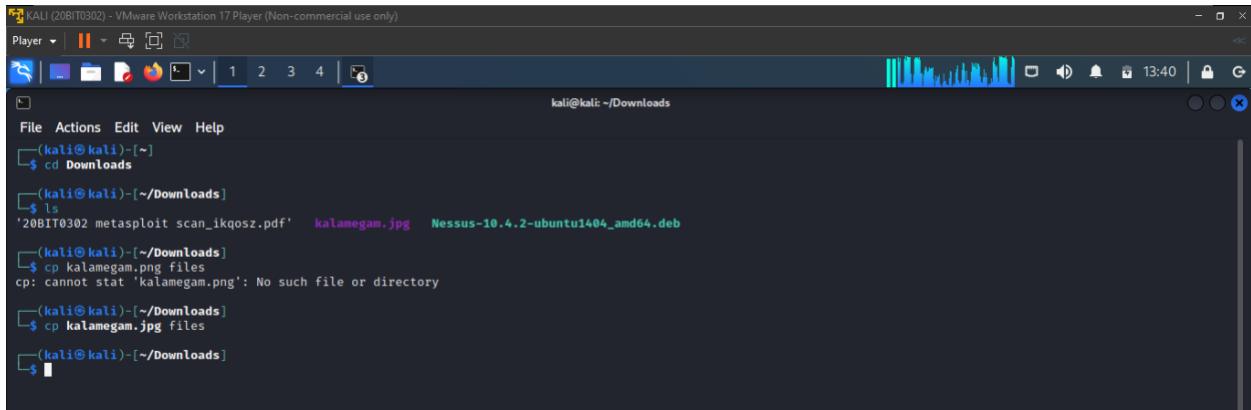
```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || | 1 2 3 4 | 
File Actions Edit View Help
(kali㉿kali)-[~]
$ cd Documents
(kali㉿kali)-[~/Documents]
$ mkdir Penetration testing
(kali㉿kali)-[~/Documents]
$ ls
Penetration testing
(kali㉿kali)-[~/Documents]
$
```

touch: Create an empty file



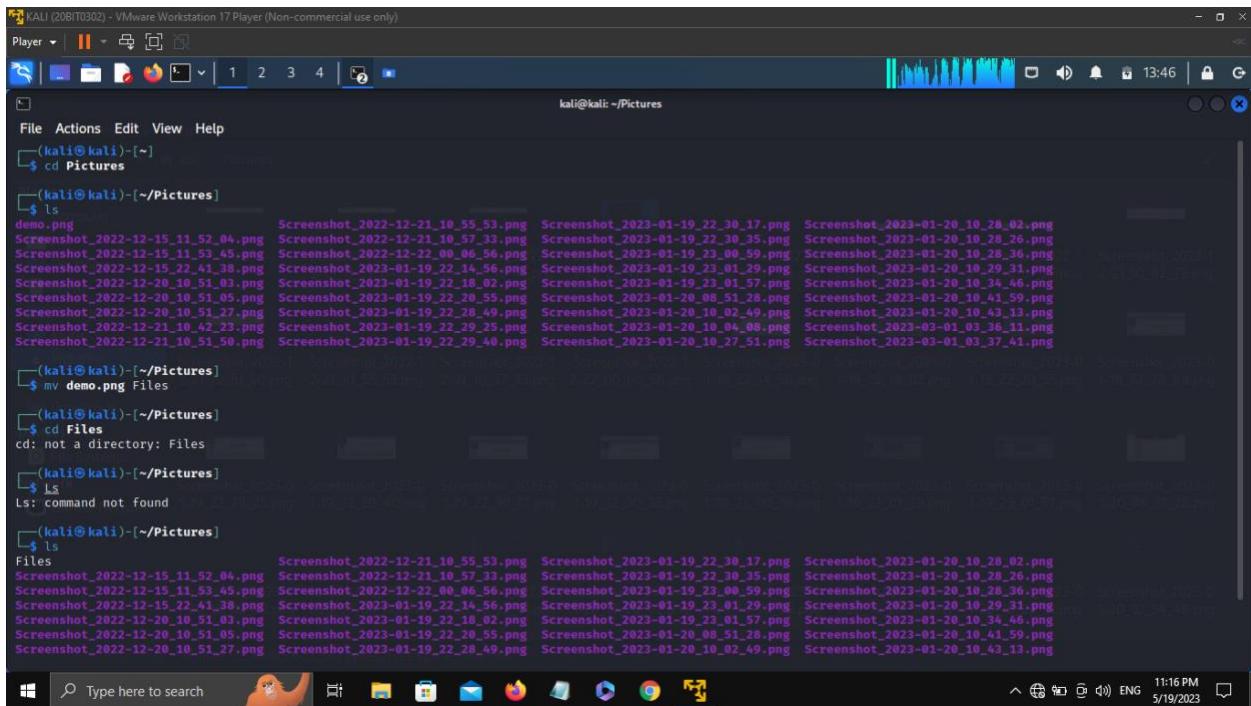
```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | || | 1 2 3 4 | 
File Actions Edit View Help
(kali㉿kali)-[~]
$ touch file1.txt
(kali㉿kali)-[~]
$ ls
Desktop Documents Downloads file1.txt LabQn4.txt Music Pictures Public Templates Videos
(kali㉿kali)-[~]
```

cp: Copy files and directories



```
Kali (208IT0302) - 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
'208IT0302 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 | || | 1 2 3 4 | 
File Actions Edit View Help
(kali㉿kali)-[~]
└$ cd 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_2022-12-15_11_52_04.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_2022-12-15_11_53_45.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_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_06.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_2023-01-03_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_2023-01-03_37_41.png
(kali㉿kali)-[~/Pictures]
└$ mv demo.png Files
(kali㉿kali)-[~/Pictures]
└$ cd Files
cd: not a directory: Files
(kali㉿kali)-[~/Pictures]
└$ ls
ls: command not found
(kali㉿kali)-[~/Pictures]
└$ ls
Files  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_52_04.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_2022-12-15_11_53_45.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_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
```

rm: Remove files and directories

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_2022-12-22_00_14_56.png Screenshot_2023-01-19_22_08_50.png Screenshot_2023-01-20_10_28_36.png
Screenshot_2022-12-20_10_51_03.png Screenshot_2022-12-22_18_02.png Screenshot_2023-01-19_22_19_29.png Screenshot_2023-01-20_10_29_31.png
Screenshot_2022-12-20_10_51_05.png Screenshot_2022-12-22_18_05.png Screenshot_2023-01-19_22_20_55.png Screenshot_2023-01-20_10_34_46.png
Screenshot_2022-12-20_10_51_27.png Screenshot_2022-12-22_19_28_49.png Screenshot_2023-01-19_20_10_02_49.png Screenshot_2023-01-20_10_41_59.png
Screenshot_2022-12-21_10_42_23.png Screenshot_2022-12-22_19_29_25.png Screenshot_2023-01-19_22_29_40.png Screenshot_2023-01-20_10_04_08.png
Screenshot_2022-12-21_10_51_50.png Screenshot_2022-12-22_19_29_40.png Screenshot_2023-01-19_22_29_51.png Screenshot_2023-01-20_10_27_51.png
Screenshot_2022-12-21_10_51_58.png Screenshot_2022-12-22_19_29_40.png Screenshot_2023-01-19_22_30_17.png Screenshot_2023-01-20_10_28_02.png

(kali㉿kali)-[~/Pictures]
$ rm Files
Files

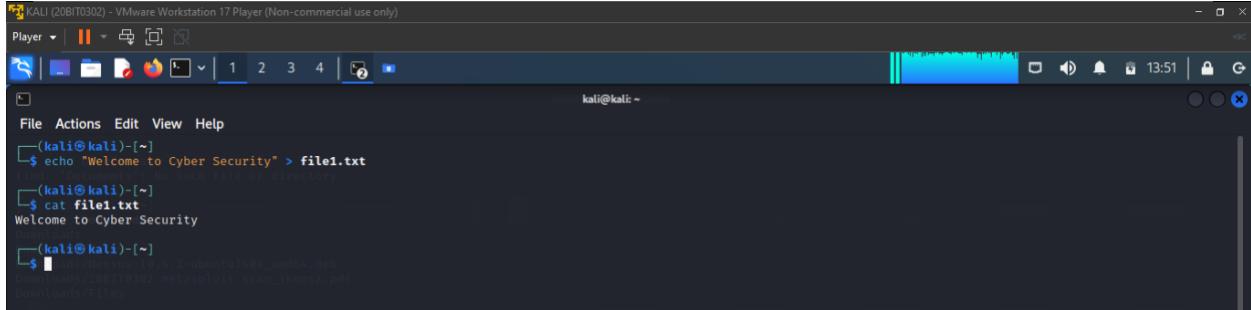
(kali㉿kali)-[~/Pictures]
$ ls
Screenshot_2022-12-15_11_52_04.png Screenshot_2022-12-21_10_57_33.png Screenshot_2023-01-19_22_30_35.png Screenshot_2023-01-20_10_28_26.png
Screenshot_2022-12-15_11_53_45.png Screenshot_2022-12-22_00_06_56.png Screenshot_2023-01-19_23_00_59.png Screenshot_2023-01-20_10_28_36.png
Screenshot_2022-12-15_22_41_38.png Screenshot_2022-12-22_00_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_2022-12-22_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_2022-12-22_18_05.png Screenshot_2023-01-19_22_20_55.png Screenshot_2023-01-20_10_41_59.png
Screenshot_2022-12-20_10_51_27.png Screenshot_2022-12-22_19_28_49.png Screenshot_2023-01-19_22_29_40.png Screenshot_2023-01-20_10_43_13.png
Screenshot_2022-12-21_10_42_23.png Screenshot_2022-12-22_19_29_25.png Screenshot_2023-01-19_22_29_51.png Screenshot_2023-03-01_03_36_11.png
Screenshot_2022-12-21_10_51_50.png Screenshot_2022-12-22_19_29_51.png Screenshot_2023-01-20_10_04_08.png Screenshot_2023-03-01_03_37_41.png
Screenshot_2022-12-21_10_55_53.png Screenshot_2022-12-22_19_30_17.png Screenshot_2023-01-20_10_27_51.png Screenshot_2023-03-01_03_37_41.png

(kali㉿kali)-[~/Pictures]
$
```

find: Search for files and directories

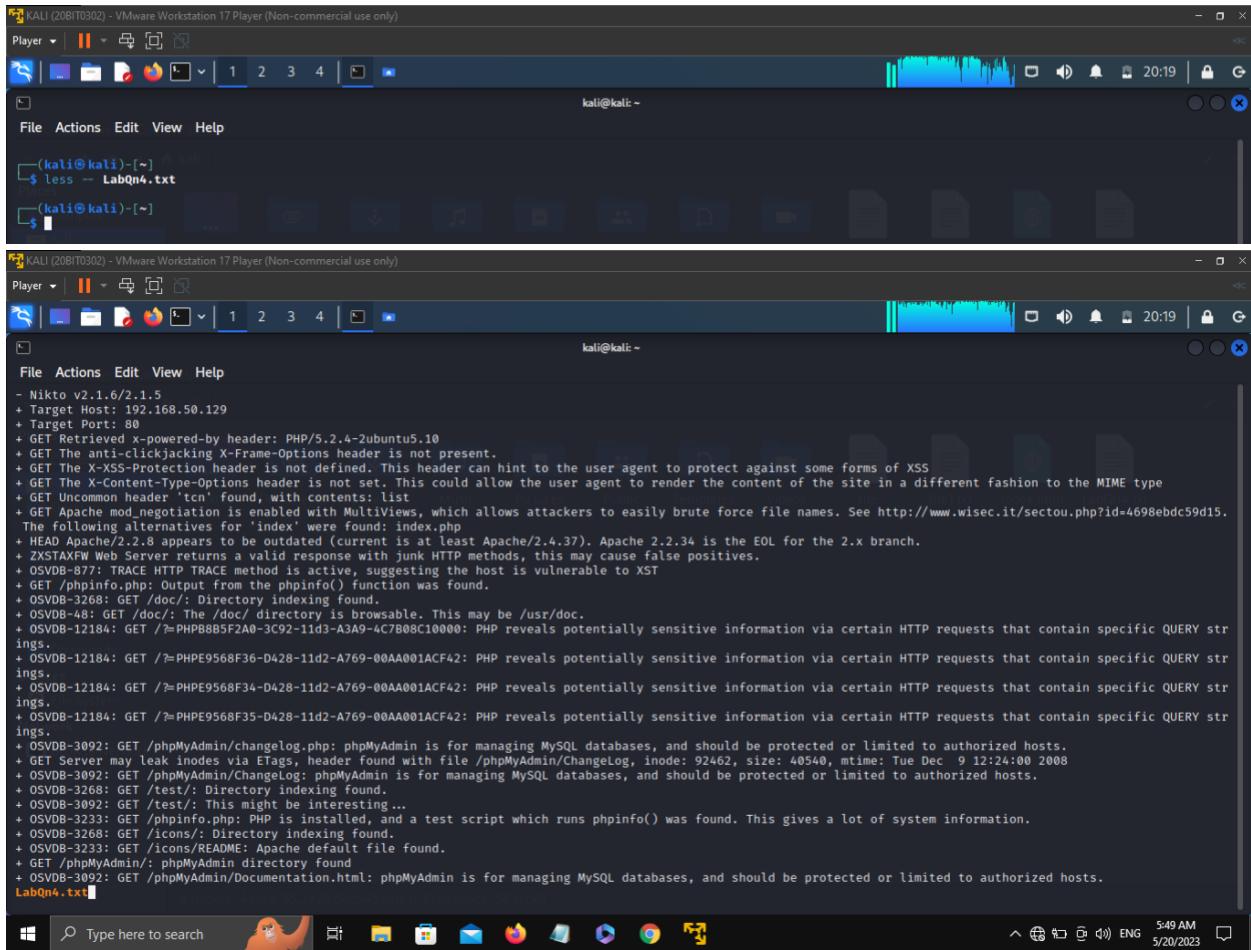
File Viewing and Editing:

cat: Concatenate and display file content

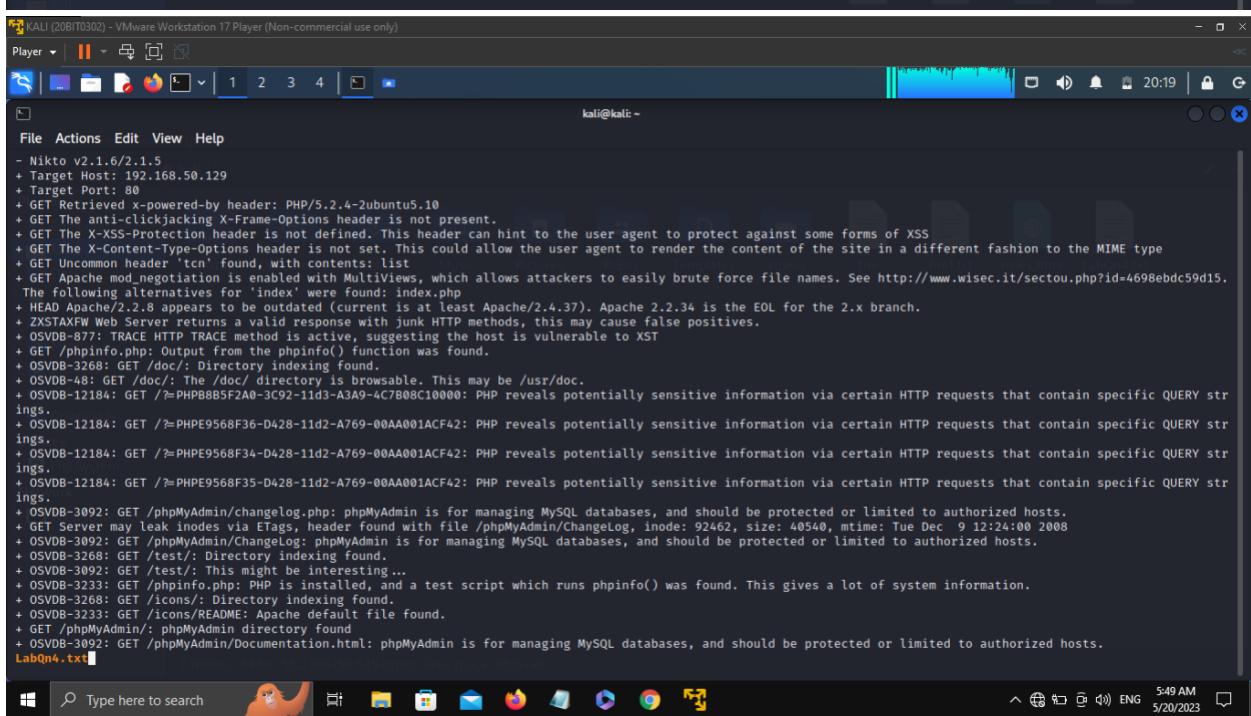


```
(kali㉿kali)-[~]
$ echo "Welcome to Cyber Security" > file1.txt
(kali㉿kali)-[~]
$ cat file1.txt
Welcome to Cyber Security
(kali㉿kali)-[~]
```

less: View file content with pagination



```
(kali㉿kali)-[~]
$ less -- LabQn4.txt
(kali㉿kali)-[~]
```



```
- 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 2.2.34 is the EOL for the 2.x branch.
+ ZXTAXFW 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-AC7B08C10000: PHP reveals potentially sensitive information via certain HTTP requests that contain specific QUERY strings.
+ OSVDB-12184: GET /?=>PHPE9568F36-0428-11d2-A769-00AA001ACF42: PHP reveals potentially sensitive information via certain HTTP requests that contain specific QUERY strings.
+ OSVDB-12184: GET /?=>PHPE9568F35-0428-11d2-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-3268: GET /icons/: Directory indexing found.
+ 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
```

head: Display the beginning of a file

```
(kali㉿kali)-[~]
$ head -- LabQn4.txt
- Nikto v2.1.6/2.1.5
+ Target Host: 192.168.50.129
+ Target Port: 80
+ 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 2.2.34 is the EOL for the 2.x branch.
```

Downloads

Devices

File System

Network

Browse Network

Type here to search

5:49 AM 5/20/2023

tail: Display the end of a file

```
(kali㉿kali)-[~]
$ tail -- 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-3292: 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.
```

Type here to search

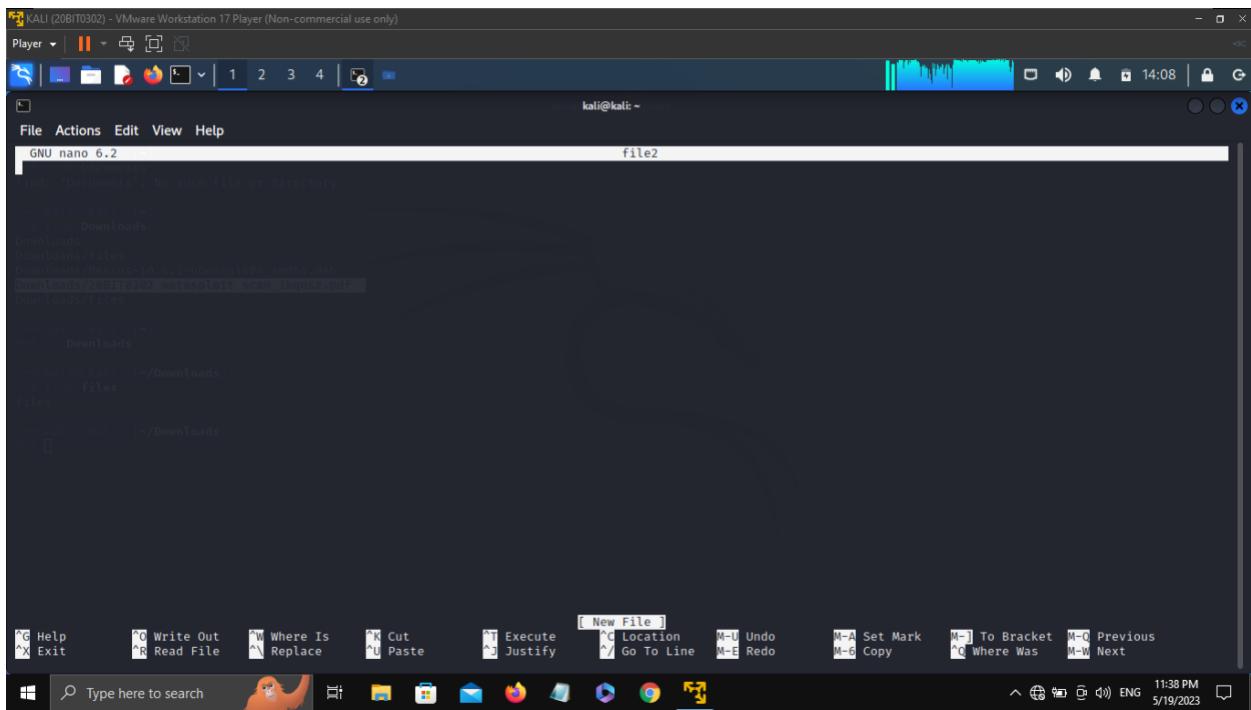
5:50 AM 5/20/2023

nano: Text editor for creating and editing files

```
(kali㉿kali)-[~]
$ nano --version
GNU nano, version 6.2
(C) 1999-2011, 2013-2022 Free Software Foundation, Inc.
(C) 2014-2022 the contributors to nano
Compiled options: --disable-libmagic --enable-utf8

(kali㉿kali)-[~]
$ nano file2

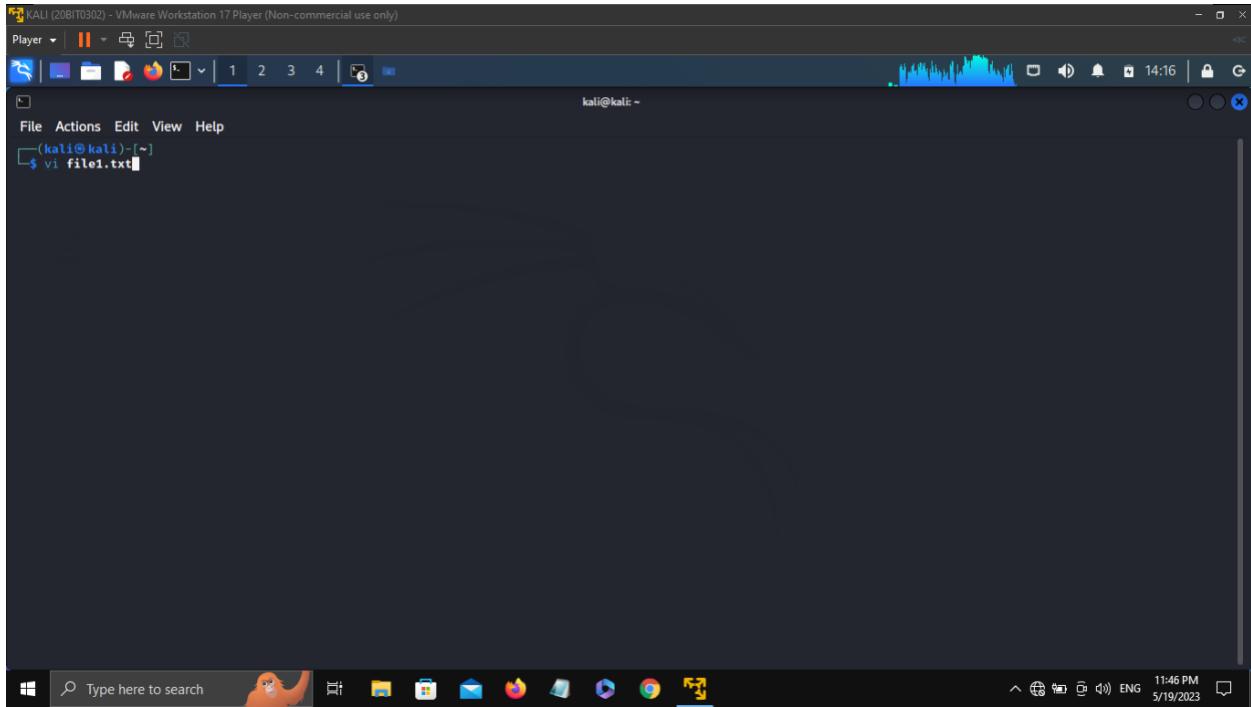
(kali㉿kali)-[~]
```



A screenshot of a Kali Linux desktop environment within a VMware Workstation window. The main focus is a terminal window titled 'file2' running the 'nano 6.2' text editor. The terminal displays a file listing from the '/Downloads' directory, including files like 'metasploit_scanner_ikqosz.pdf' and 'metasploit_scanner_ikqosz.py'. The desktop interface includes a top bar with icons for various applications like a file manager, browser, and terminal, along with system status indicators. A taskbar at the bottom shows several open application icons.

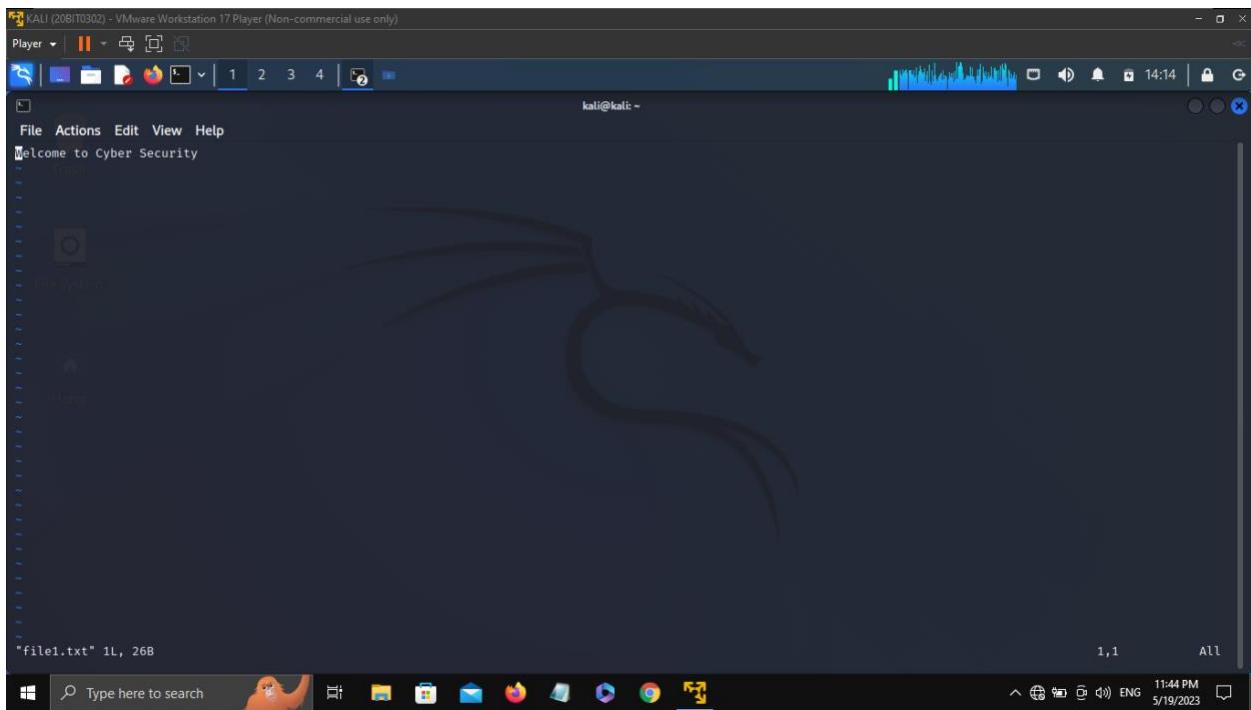
```
File Actions Edit View Help
GNU nano 6.2
file2
kali@kali:~$ cd ~/Downloads
kali@kali:~/Downloads$ ls
metasploit_scanner_ikqosz.pdf
metasploit_scanner_ikqosz.py
kali@kali:~/Downloads$
```

vi/vim: Powerful text editor for experienced users



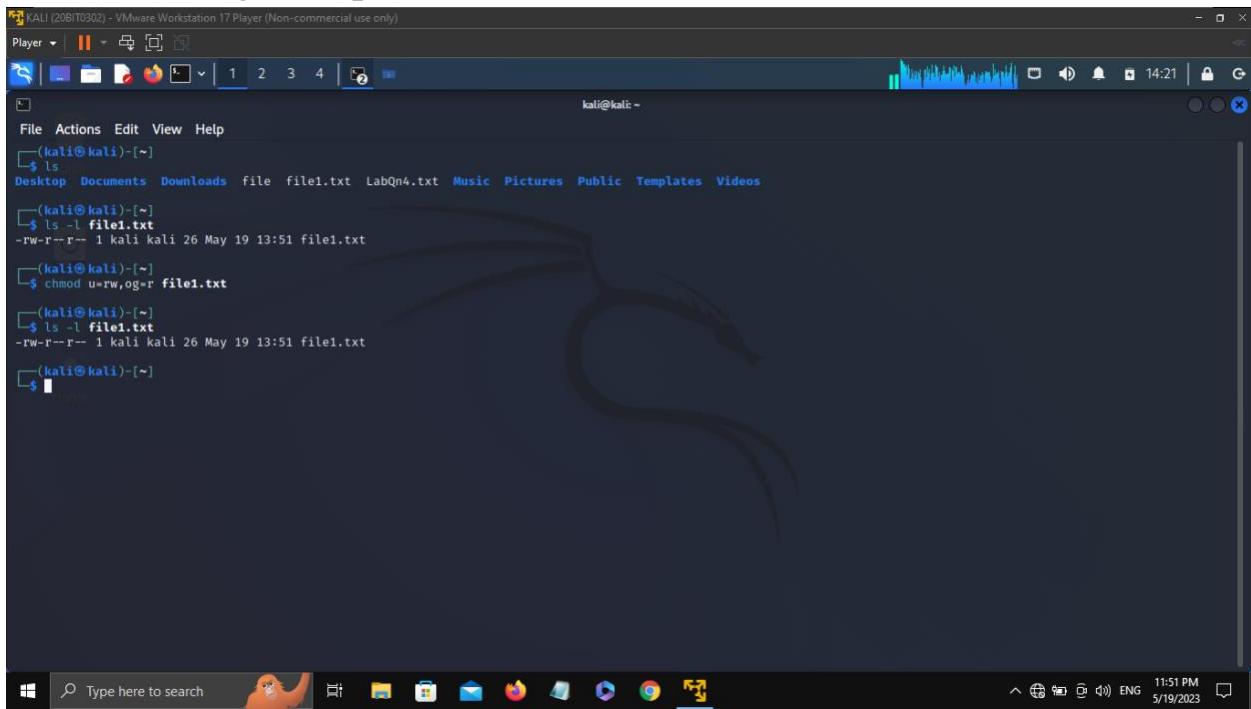
A screenshot of a Kali Linux desktop environment within a VMware Workstation window. The main focus is a terminal window titled '(kali㉿kali)-[~]' running the 'vi' text editor. The terminal shows the command '\$ vi file1.txt'. The desktop interface includes a top bar with icons for various applications like a file manager, browser, and terminal, along with system status indicators. A taskbar at the bottom shows several open application icons.

```
(kali㉿kali)-[~]
$ vi file1.txt
```



File Permissions:

chmod: Change file permissions



chown: Change file owner

```
KALI (20bit0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | II | ⌂ | 1 2 3 4 | 🔍 | 20:27 | 🔍 | G |
File Actions Edit View Help
[root@kali:~]
[root@kali:~] cd /home/kali/
[root@kali:~/home/kali] ls
Desktop Documents Downloads file file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
[root@kali:~/home/kali] ls -l file1.txt
-rw-r--r-- 1 kali kali 26 May 19 13:51 file1.txt
[root@kali:~/home/kali] chown master file1.txt
chown: invalid user: 'master' (see /etc/nsswitch.conf(5))
[root@kali:~/home/kali] chown root file1.txt
[root@kali:~/home/kali] ls -l file1.txt
-rw-r--r-- 1 root kali 26 May 19 13:51 file1.txt
[root@kali:~/home/kali] chown kali file1.txt
[root@kali:~/home/kali] ls -l file1.txt
-rw-r--r-- 1 kali kali 26 May 19 13:51 file1.txt
[root@kali:~/home/kali]
```

chgrp: Change file group

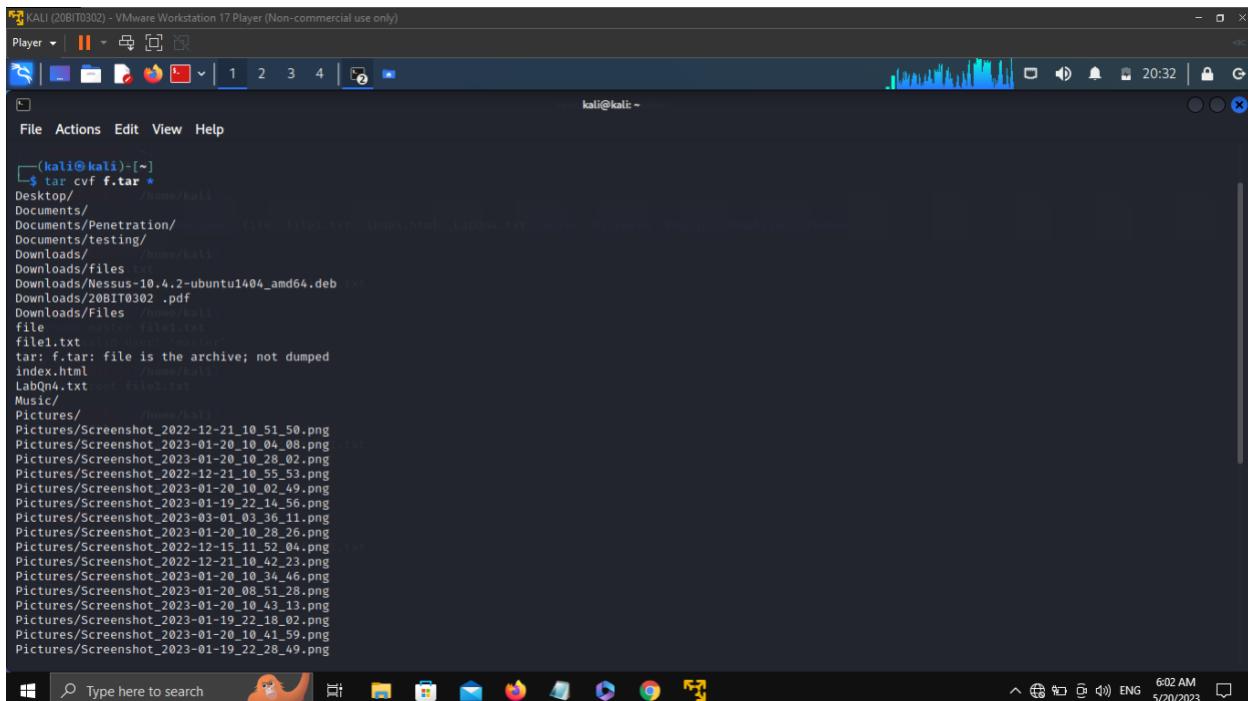
```
KALI (20bit0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | II | ⌂ | 1 2 3 4 | 🔍 | 20:30 | 🔍 | G |
File Actions Edit View Help
(kali㉿kali)-[~]
$ sudo addgroup cybersecurity
[sudo] password for kali:
Sorry, try again.
[sudo] password for kali:
Adding group `cybersecurity' (GID 1001) ...
Done.
/home/kali
file1.txt
(kali㉿kali)-[~] 26 May 19 13:51 file1.txt
$ sudo chgrp cybersecurity file1.txt
/home/kali
(kali㉿kali)-[~] file1.txt
$ ls -l file1.txt
-rw-r--r-- 1 kali cybersecurity 26 May 19 13:51 file1.txt
/home/kali
(kali㉿kali)-[~] file1.txt
$ ls -l file1.txt
-rw-r--r-- 1 root kali 26 May 19 13:51 file1.txt
/home/kali
(kali㉿kali)-[~] file1.txt
$ ls -l file1.txt
-rw-r--r-- 1 kali kali 26 May 19 13:51 file1.txt
/home/kali
(kali㉿kali)-[~]
```

File Compression and Archiving:

tar: Archive files

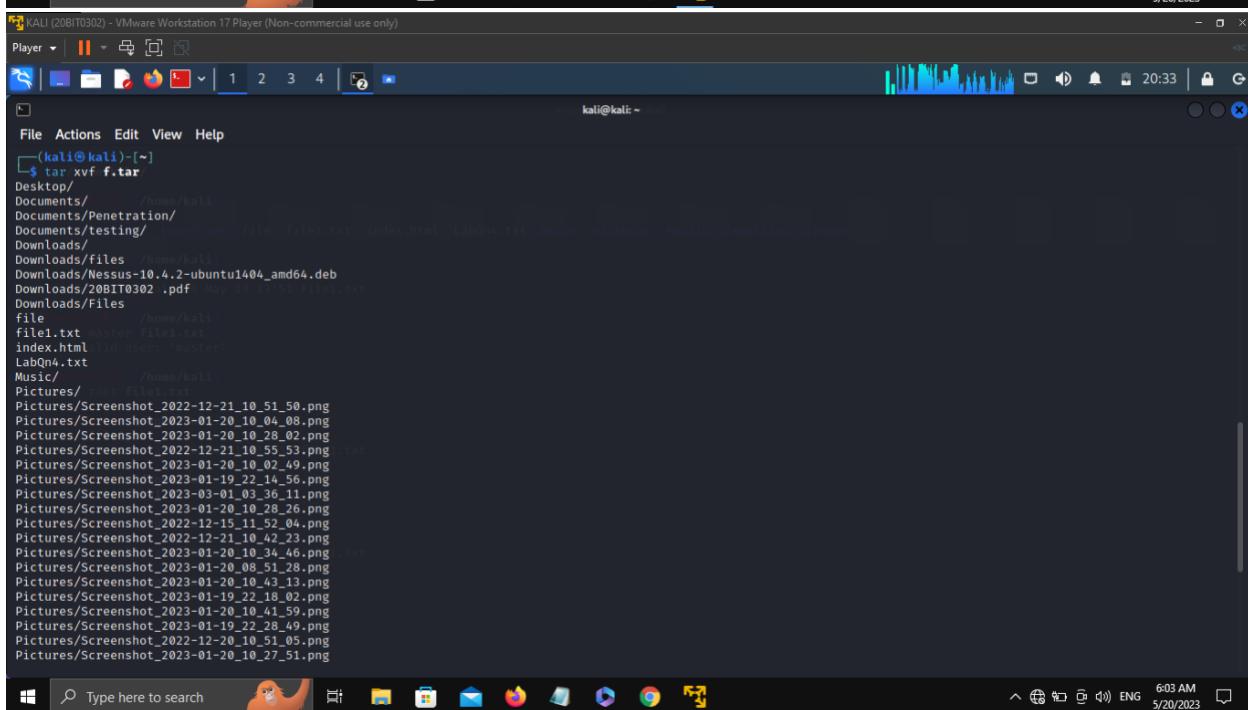
Commands:

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



KALI (208IT0302) - VMware Workstation 17 Player (Non-commercial use only)

```
(kali㉿kali)-[~]
$ tar cvf f.tar *
Desktop/
Documents/
Documents/Penetration/
Documents/testing/
Downloads/
Downloads/files
Downloads/Nessus-10.4.2-ubuntu1404_amd64.deb
Downloads/208IT0302.pdf
Downloads/Files
file
file1.txt
file1.txt: archive user: 'master'
tar: f.tar: file is the archive; not dumped
index.html
LabQn4.txt
LabQn4.txt.out
Music/
Pictures/
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
```



KALI (208IT0302) - VMware Workstation 17 Player (Non-commercial use only)

```
(kali㉿kali)-[~]
$ tar xvf f.tar
Desktop/
Documents/
Documents/Penetration/
Documents/testing/
Downloads/
Downloads/files
file
file1.txt master file1.txt
index.html
LabQn4.txt
LabQn4.txt.out
Music/
Pictures/
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
```

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

```
Player | || | 1 2 3 4 | 🔍
```

kali@kali:~

```
(kali㉿kali)-[~]
└─$ tar tvf f.tar
drwxr-xr-x kali/kali    0 2022-05-12 12:19 Desktop/
drwxr-xr-x kali/kali    0 2023-05-19 13:32 Documents/
drwxr-xr-x kali/kali    0 2023-05-19 13:32 Documents/Penetration/
drwxr-xr-x kali/kali    0 2023-05-19 13:32 Documents/testing/
drwxr-xr-x kali/kali    0 2023-05-19 13:57 Downloads/
-rw-r--r-- kali/kali 4079120 2023-05-19 13:39 Downloads/files
-rwxr-xr-x kali/kali 58913086 2023-02-18 11:52 Downloads/Nessus-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 1112 2023-05-19 14:11 file1.txt
-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 120 126538 2023-01-20 10:28 Pictures/Screenshot_2023-01-20_10_28_02.png
-rw-r--r-- kali/kali 203809 2022-12-20 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
```

Type here to search ENG 6:06 AM 5/20/2023

gzip: Compress files

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

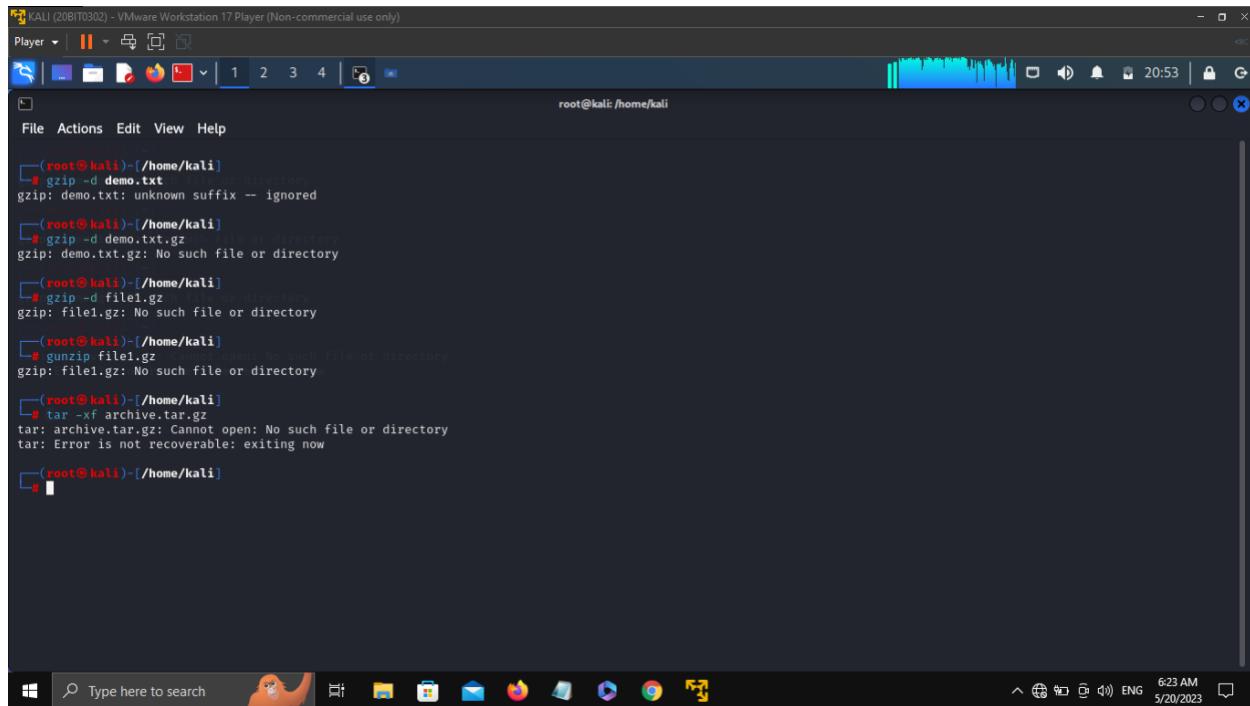
```
Player | || | 1 2 3 4 | 🔍
```

kali@kali:~

```
(kali㉿kali)-[~]
└─$ gzip file1.txt
/home/kali
(kali㉿kali)-[~]
└─$ gzip -f myfile1.txt
/home/kali/Desktop/file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
gzip: myfile1.txt: No such file or directory
/home/kali
(kali㉿kali)-[~]
└─$ gzip -f file1.txt
/home/kali/Desktop/file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
gzip: file1.txt: No such file or directory
/home/kali
(kali㉿kali)-[~]
└─$ gzip -f file1.gz 'master'
/home/kali/Desktop/file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
gzip: file1.gz: No such file or directory
/home/kali
(kali㉿kali)-[~]
└─$ gzip -k file1.txt
/home/kali/Desktop/file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
gzip: file1.txt: No such file or directory
/home/kali
(kali㉿kali)-[~]
└─$ ls -l file1.txt
ls: cannot access 'file1.txt': No such file or directory
/home/kali/Desktop/file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
(kali㉿kali)-[~]
└─$ gzip -f LabQn4.txt
/home/kali/Desktop/file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
(kali㉿kali)-[~]
└─$ gzip -k file1.txt
/home/kali/Desktop/file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
gzip: file1.txt: already has .gz suffix -- unchanged
/home/kali/Desktop/file1.txt index.html LabQn4.txt Music Pictures Public Templates Videos
```

Type here to search ENG 6:13 AM 5/20/2023

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

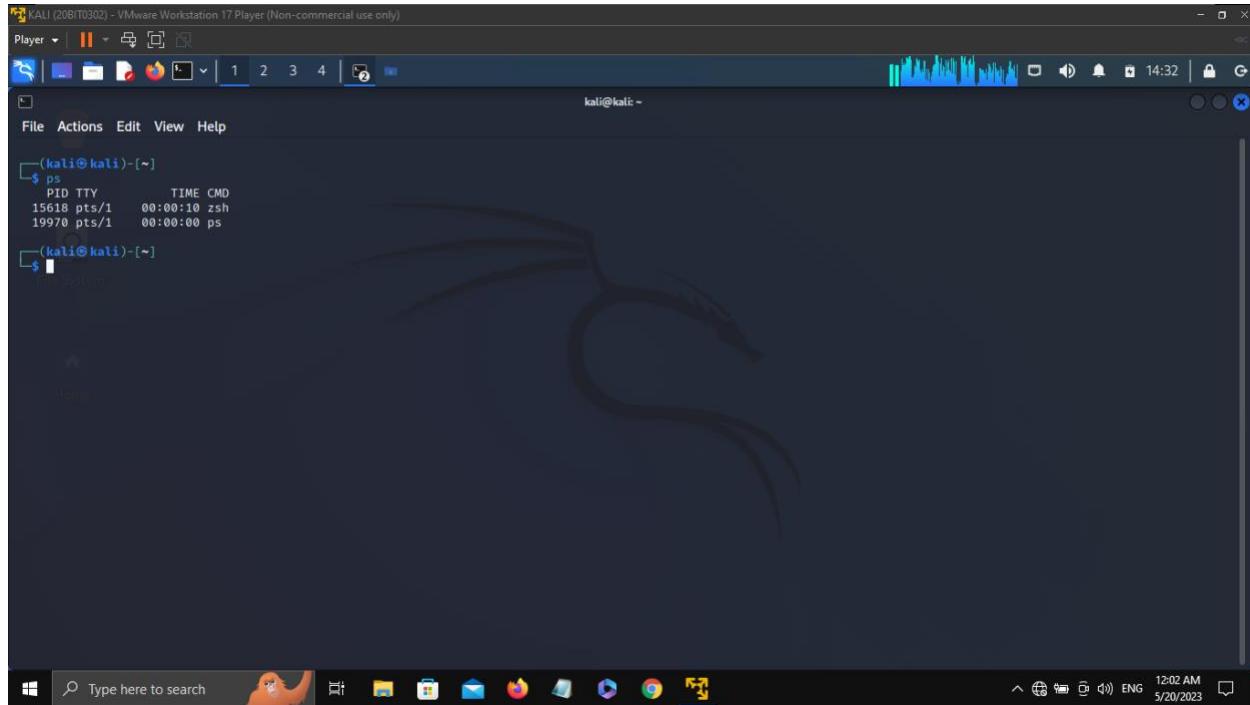
(root@kali)-[~/home/kali]
# gunzip file1.gz
gunzip: file1.gz: cannot open: No such file or directory
gzip: file1.gz: No such file or directory

(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:

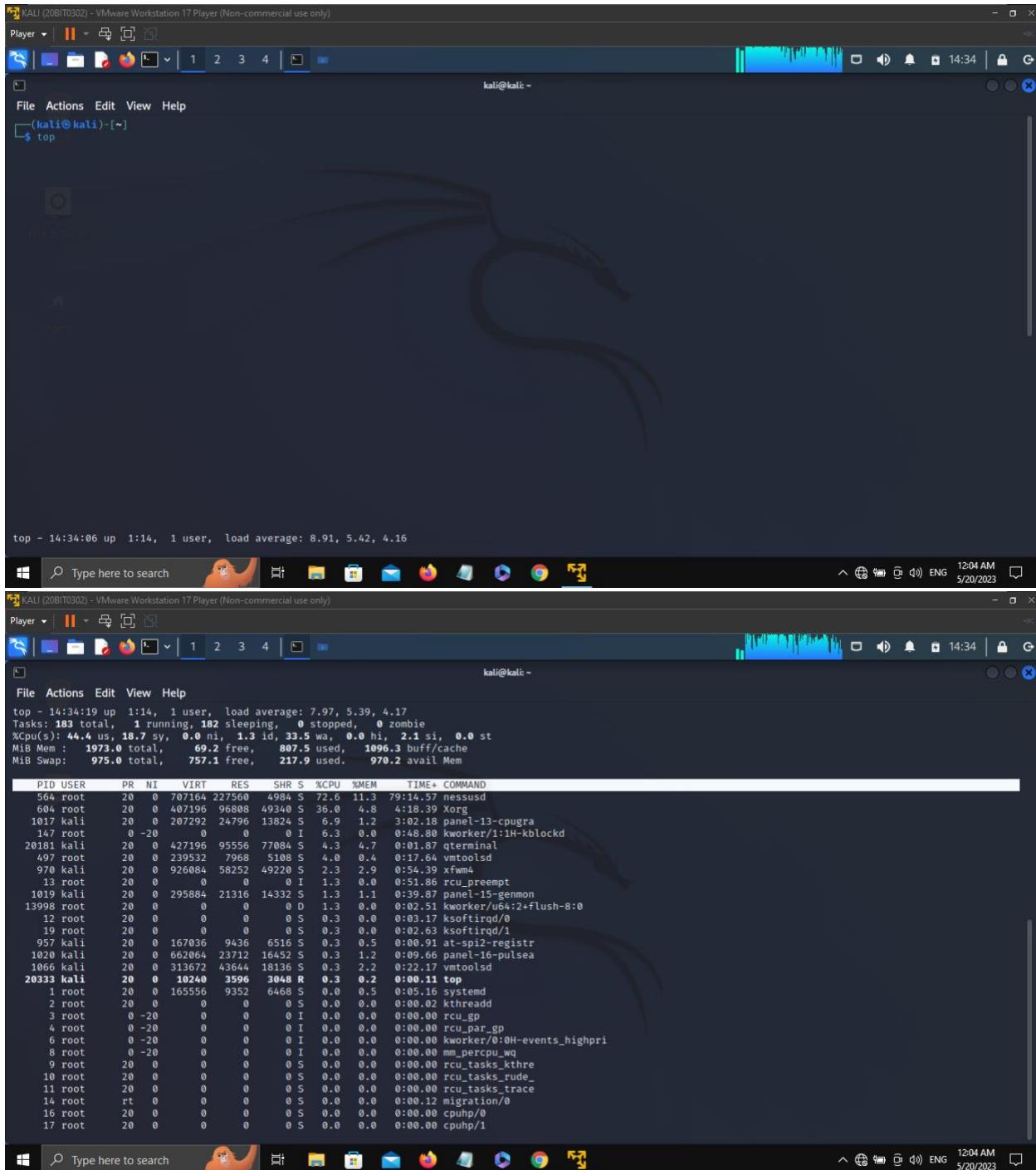
ps: List running processes



```
(kali㉿kali)-[~]
$ ps
  PID TTY      TIME CMD
15618 pts/1    00:00:10 zsh
19970 pts/1    00:00:00 ps

(kali㉿kali)-[~]
$
```

top: Display real-time system information and processes



The screenshot shows a Kali Linux desktop environment with the terminal window titled "Player" open. The terminal displays the output of the "top" command. The output includes system statistics like CPU usage and memory usage, followed by a detailed process list with columns for PID, USER, PR, NI, VIRT, RES, SHR, %CPU, %MEM, TIME+, and COMMAND. The terminal window has a dark background with a Kali Linux logo watermark.

```
top - 14:34:06 up 1:14, 1 user, load average: 8.91, 5.42, 4.16
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, 33.5 wa, 0.0 hi, 2.1 si, 0.0 st
Mem: 1973.0 total, 69.2 free, 887.5 used, 1096.3 buff/cache
Swap: 975.0 total, 757.1 free, 217.9 used. 970.2 avail Mem

PID USER PR NI VIRT RES SHR %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 0 -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-genmon
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 0:00.98 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 S 0.0 0.0 0:00.00 rcu_tasks_kthre
10 root 20 0 0 0 S 0.0 0.0 0:00.00 rcu_tasks_rude_
11 root 20 0 0 0 S 0.0 0.0 0:00.00 rcu_tasks_trace
14 root rt 0 0 0 S 0.0 0.0 0:00.12 migration/0
16 root 20 0 0 0 S 0.0 0.0 0:00.00 cpuhp/0
17 root 20 0 0 0 S 0.0 0.0 0:00.00 cpuhp/1
```

kill: Terminate processes

```
kali (20810302) - VMware Workstation 17 Player (Non-commercial use only)
Player | II | ☰ | 1 2 3 4 | 🎧 | 20:17 | 🔒 | G

File Actions Edit View Help
(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

```
root (20810302) - VMware Workstation 17 Player (Non-commercial use only)
Player | II | ☰ | 1 2 3 4 | 🎧 | 14:40 | 🔒 | G

File Actions Edit View Help
(root㉿kali)-[~]
# bg --help
bg: job not found: --help

(root㉿kali)-[~]
# jobs
[root@kali] ~

(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

```
root: 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
#
```

System Information:

uname: Print system information

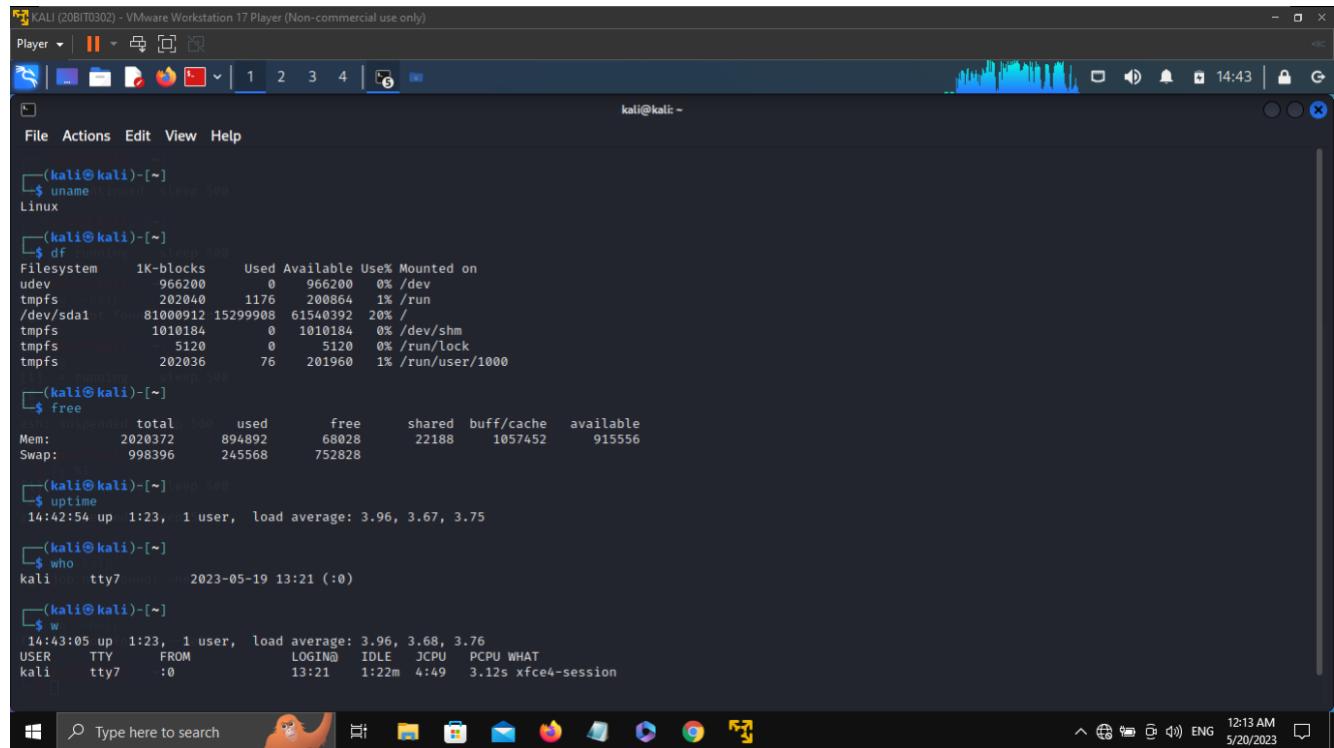
df: Display disk space usage

free: Display memory usage

uptime: Show system uptime

who: Display logged-in users

w: Display logged-in users and their activities



Kali (2021t0302) - VMware Workstation 17 Player (Non-commercial use only)

```
(kali㉿kali)-[~]
$ uname -n | sleep 500
Linux

(kali㉿kali)-[~]
$ df -h | sleep 500
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       894892   68028   22188   1057452      915556
Swap: 998396 245568 752828

(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
```

The screenshot shows a terminal window running on Kali Linux. The terminal displays several system status commands: uname, df, free, uptime, who, and w. The terminal is titled "Kali (2021t0302) - VMware Workstation 17 Player (Non-commercial use only)". The desktop environment includes a taskbar with icons for file explorer, browser, and other applications. The system tray shows battery level, signal strength, and system status.

Networking:

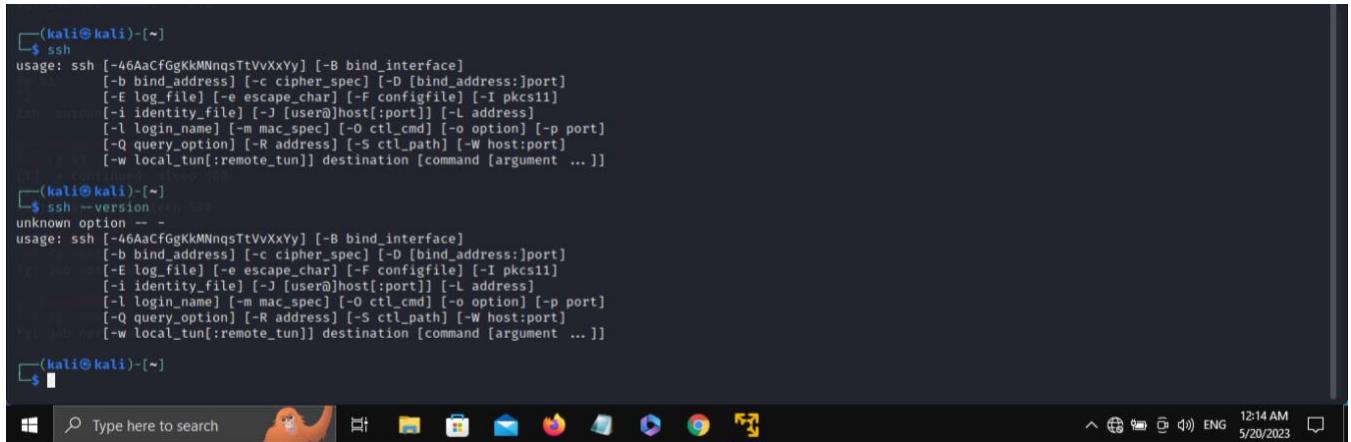
ifconfig: Configure network interfaces

ping: Send ICMP echo requests to a network host

```
kali㉿kali: ~
```

```
File Actions Edit View Help
[~] $ 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=0.591 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

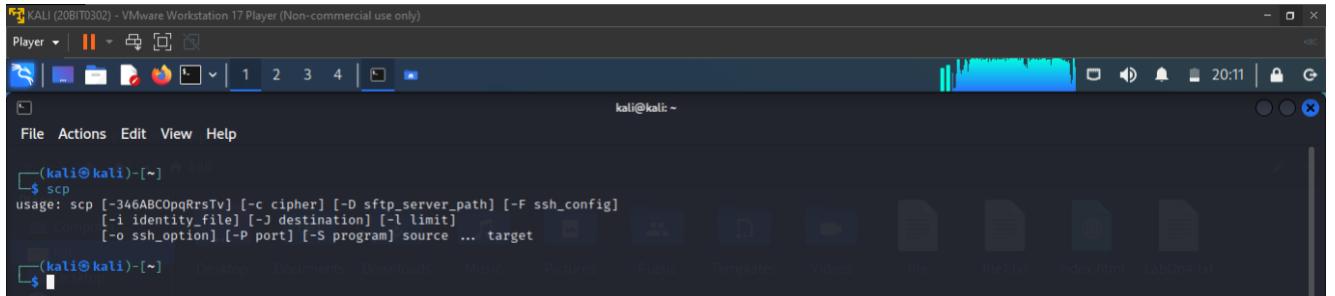


```
(kali㉿kali)-[~]
$ ssh
usage: ssh [-46AaCfGgKkMNnqsTtVvXxYy] [-B bind_interface]
           [-b bind_address] [-c cipher_spec] [-D [bind_address:]port]
           [-E log_file] [-e escape_char] [-F configFile] [-I pkcs11]
           [-i identity_file] [-J [user@]host[:port]] [-L address]
           [-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
unknown option --
usage: ssh [-46AaCfGgKkMNnqsTtVvXxYy] [-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

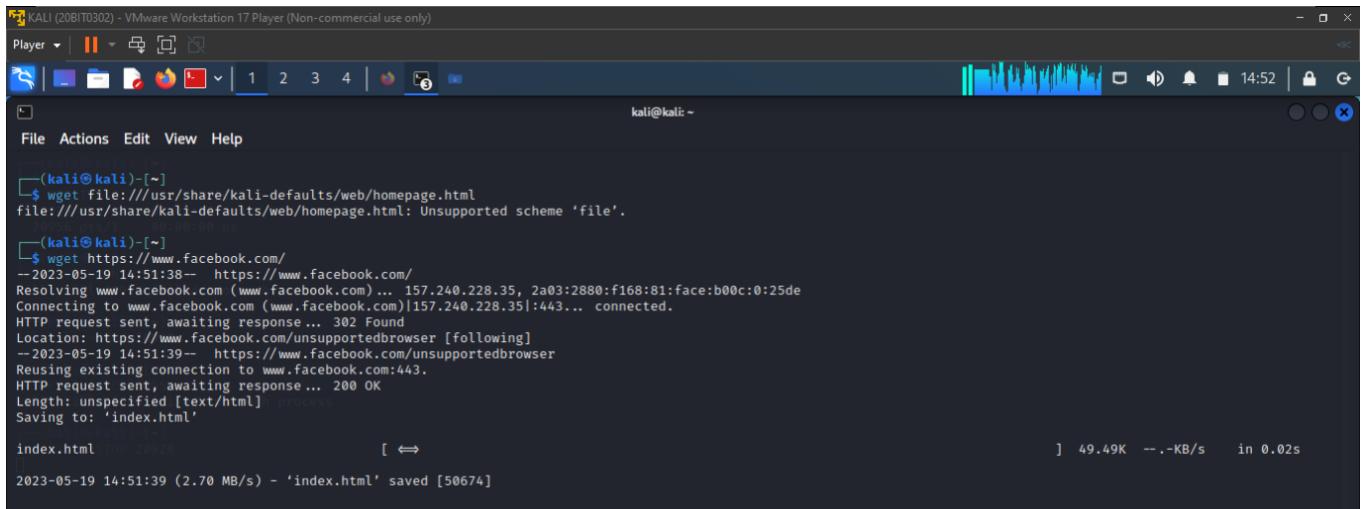


```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | ||| | ↻
File Actions Edit View Help
kali㉿kali: ~

(kali㉿kali)-[~]
$ scp
usage: scp [-346ABCOpqRrsTv] [-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



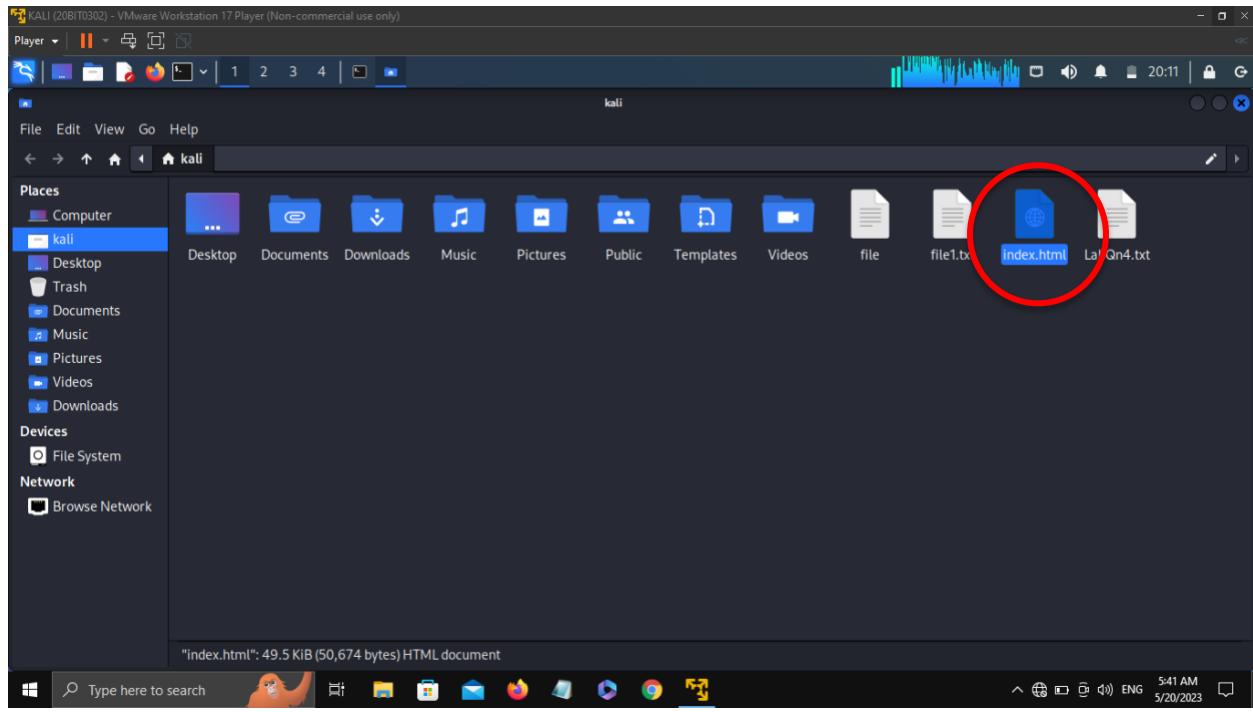
```
KALI (20BIT0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | ||| | ↻
File Actions Edit View Help
kali㉿kali: ~

(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:

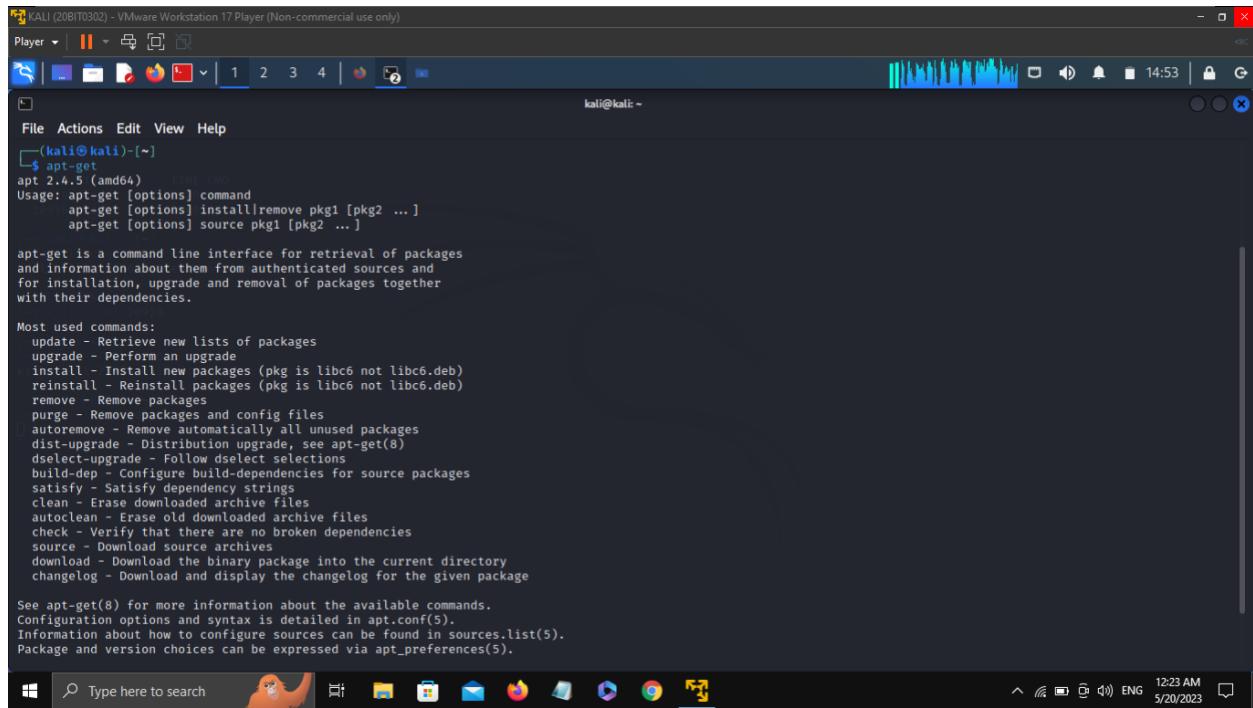


System Administration:

sudo: Execute commands with superuser privileges

```
(kali㉿kali)-[~]
$ sudo
usage: sudo -h | -K | -k | -
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)-[~]
$
```

apt-get: Package management for Debian-based distributions



```
kali (20bit0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | II | ⌂ | ↻ | 1 2 3 4 | 🍕 | k
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 ...]

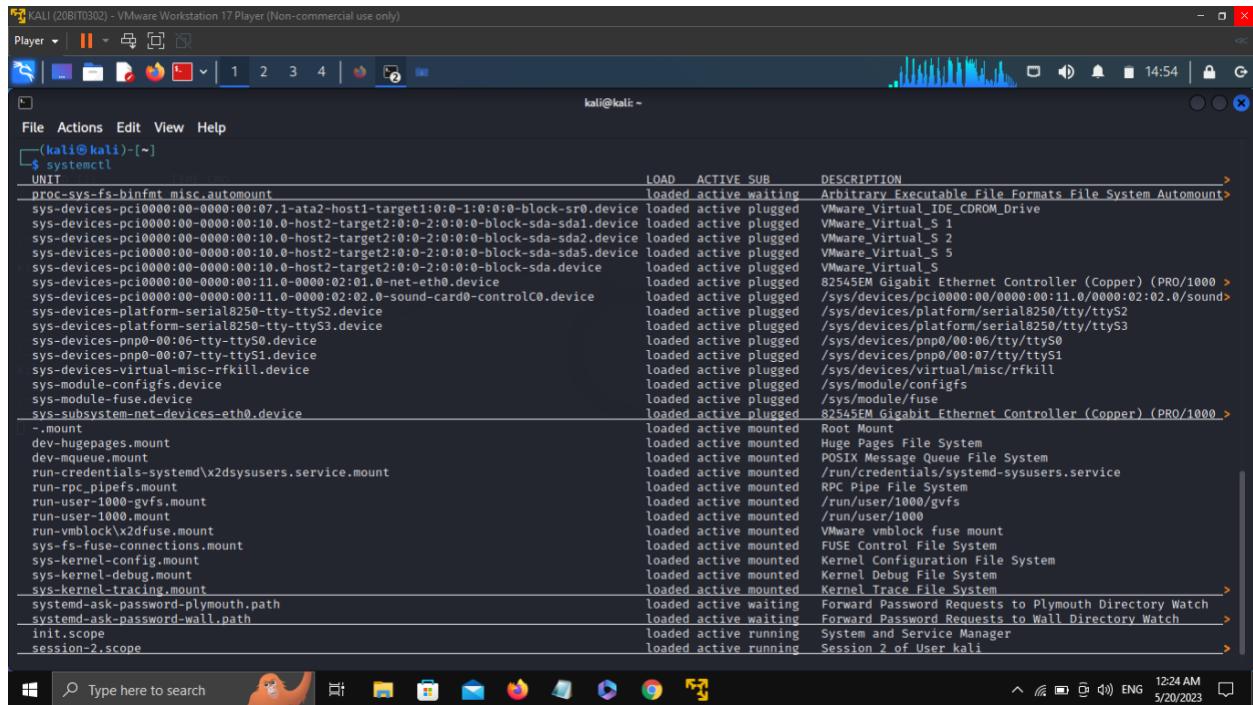
apt-get is a command line interface for retrieval of packages
and information about them from authenticated sources and
for installation, upgrade and removal of packages together
with their dependencies.

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: Type here to search 12:23 AM ENG 5/20/2023
```

systemctl: Manage system services



```
kali (20bit0302) - VMware Workstation 17 Player (Non-commercial use only)
Player | II | ⌂ | ↻ | 1 2 3 4 | 🍕 | k
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-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-block-sda-sd2.device    loaded active plugged   VMware_Virtual_S_2
sys-devices-pci0000:00-0000:00:10.0-host2-target2:0:0-2:0:0-block-sda-sd4.device    loaded active plugged   VMware_Virtual_S_5
sys-devices-pci0000:00-0000:00:11.0-net-eth0.device      loaded active plugged   82545EM Gigabit Ethernet Controller (Copper) (PRO/1000 >
sys-devices-pci0000:00-0000:00:11.0-0000:02:01.0-net-eth0.device      loaded active plugged   /sys/devices/pci0000:00/0000:00:11.0/0000:02:01.0/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_pipesfs.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: Type here to search 12:24 AM ENG 5/20/2023
```

crontab: Schedule recurring tasks

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

Player | [] 1 2 3 4 | []

kali@kali: ~

File Actions Edit View Help

```
(kali㉿kali)-[~] cd /tmp  
$ 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)-[~] nano /tmp/crontab  
$ nano: /tmp/crontab: Cannot open: No such file or directory.  
error is not recoverable: exiting now.  
  
$ ls  
crontab.ko 1 2 3 4  
$ yum install Firefox  
Command 'yum' not found, did you mean:  
command 'num' from deb quickal  
command 'num' from deb corandis  
command 'num' from deb freewm-iserver  
command 'zum' from deb perforate  
Try: apt install <deb name>  
  
$ sudo yum install Firefox  
sudo: yum: Command not found  
  
$ sudo yum -y install Firefox  
$ Invalid operation yum  
  
$ ls  
crontab.ko 1 2 3 4  
$
```

Type here to search  ENG 6:38 AM 5/20/2023

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

Player | [] 1 2 3 4 | []

kali@kali: ~

File Actions Edit View Help

```
GNU nano 6.2 /tmp/crontab.wQLROu/crontab  
# Edit this file to introduce tasks to be run by cron.  
#  
# Each task to run has to be defined through a single line  
# indicating with different fields when the task will be run  
# and what command to run for the task  
#  
# To define the time you can provide concrete values for  
# minute (m), hour (h), day of month (dom), month (mon),  
# and day of week (dow) or use '*' in these fields (for 'any').  
#  
# Notice that tasks will be started based on the cron's system  
# daemon's notion of time and timezones.  
#  
# Output of the crontab jobs (including errors) is sent through  
# email to the user the crontab file belongs to (unless redirected).  
#  
# For example, you can run a backup of all your user accounts  
# at 5 a.m. every week with:  
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/  
# command 'tar' from deb corandis  
# For more information see the manual pages of crontab(5) and cron(8)  
# command 'zum' from deb perforate  
# m h dom mon dow command  
  
$ ls  
crontab.ko 1 2 3 4  
$ sudo yum -y install Firefox  
sudo: yum: Command not found  
  
$ ls  
crontab.ko 1 2 3 4  
$ sudo yum -y install Firefox  
$ Invalid operation yum  
  
$ ls  
crontab.ko 1 2 3 4  
$
```

File Edit View Help

Help Exit Write Out Read File Where Is Replace Cut Paste Execute Justify Location Go To Line Undo Set Mark To Bracket Where Was Previous Next

Type here to search  ENG 6:38 AM 5/20/2023

useradd: Add a new user

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

Player | II | 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

passwd: Change user password

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