Section 1: File and Directory Management

1. **Display the current working directory?**

```
[_]                              kali@kali: ~/Desktop

File  Actions  Edit  View  Help

┌──(kali㉿kali)-[~]
└─$ pwd
/home/kali
```

2. **List all the contents of your current directory, including hidden files?**

```
┌──(kali㉿kali)-[~]
└─$ ls -la
total 116
drwx──────  15 kali kali  4096 Sep 22 09:52 .
drwxr-xr-x   3 root root  4096 May 28 02:01 ..
-rw-r--r--   1 kali kali   220 May 28 02:01 .bash_logout
-rw-r--r--   1 kali kali  5551 May 28 02:01 .bashrc
-rw-r--r--   1 kali kali  3526 May 28 02:01 .bashrc.original
drwxrwxr-x   6 kali kali  4096 Sep 22 09:52 .cache
drwxr-xr-x  12 kali kali  4096 Sep 22 09:52 .config
drwxr-xr-x   2 kali kali  4096 Sep 22 09:52 Desktop
-rw-r--r--   1 kali kali    35 Sep 22 09:52 .dmrc
drwxr-xr-x   2 kali kali  4096 Sep 22 09:52 Documents
drwxr-xr-x   2 kali kali  4096 Sep 22 09:52 Downloads
-rw-r--r--   1 kali kali 11759 May 28 02:01 .face
lrwxrwxrwx   1 kali kali     5 May 28 02:01 .face.icon → .face
drwx──────   3 kali kali  4096 Sep 22 09:52 .gnupg
-rw──────    1 kali kali     0 Sep 22 09:52 .ICEauthority
drwxr-xr-x   3 kali kali  4096 May 28 02:01 .java
drwxr-xr-x   4 kali kali  4096 Sep 22 09:52 .local
drwxr-xr-x   2 kali kali  4096 Sep 22 09:52 Music
drwxr-xr-x   2 kali kali  4096 Sep 22 09:52 Pictures
-rw-r--r--   1 kali kali   807 May 28 02:01 .profile
drwxr-xr-x   2 kali kali  4096 Sep 22 09:52 Public
drwxr-xr-x   2 kali kali  4096 Sep 22 09:52 Templates
drwxr-xr-x   2 kali kali  4096 Sep 22 09:52 Videos
-rw──────    1 kali kali    49 Sep 22 09:52 .Xauthority
-rw──────    1 kali kali  4009 Sep 22 11:39 .xsession-errors
-rw-r--r--   1 kali kali 10868 May 28 02:01 .zshrc
```

3. **Change your directory to the `Desktop`?**

```
┌──(kali㉿kali)-[~]
└─$ cd ~/Desktop
```

4. **Create two directories named `dir1` and `dir2` on the Desktop?**

```
┌──(kali㉿kali)-[~/Desktop]
└─$ mkdir dir1 dir2
```

5. Inside `dir1`, create a file named `file1.txt`?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ touch dir1/file1.txt
```

6. Inside `dir2`, create a file named `file2.txt`?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ touch dir2/file2.txt
```

7. Using nano or vim Write the numbers 1 to 9 into `file1.txt`?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ nano dir1/file1.txt
```

8. From the home directory Copy the contents of `file1.txt` into `file2.txt`?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ cp dir1/file1.txt dir2/file2.txt
```

9. From the home directory, delete `file1.txt` inside `dir1`?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ rm dir1/file1.txt
```

10. Remove the directory `dir1` from the Desktop?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ rmdir dir1
```

11. Redirect the output of the network configuration command to a file named `network_info.txt` on the Desktop?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ ifconfig > ~/Desktop/network_info.txt
```

12. Open the Desktop folder and show all files with detailed information?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ ls -la ~/Desktop
total 16
drwxr-xr-x   3 kali kali 4096 Sep 22 16:20 .
drwx──────  15 kali kali 4096 Sep 22 09:52 ..
drwxrwxr-x   2 kali kali 4096 Sep 22 15:50 dir2
-rw-rw-r--   1 kali kali  877 Sep 22 16:20 network_info.txt
```

13. Create a new user with your name?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ sudo adduser aya
[sudo] password for kali:
info: Adding user `aya' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `aya' (1001) ...
info: Adding new user `aya' (1001) with group `aya (1001)' ...
info: Creating home directory `/home/aya' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
Sorry, passwords do not match.
passwd: Authentication token manipulation error
passwd: password unchanged
Try again? [y/N] n
Changing the user information for aya
Enter the new value, or press ENTER for the default
        Full Name []: aya
        Room Number []: a
        Work Phone []: a
        Home Phone []: a
        Other []: a
Is the information correct? [Y/n] Y
info: Adding new user `aya' to supplemental / extra groups `users' ...
info: Adding user `aya' to group `users' ...
```

14. Set a password for your user?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ passwd aya
passwd: You may not view or modify password information for aya.
```

15. Open the file that contains user information and verify that your user has been added?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ cat /ect/passwd | grep aya
cat: /ect/passwd: No such file or directory
```

16. Add your user to the file that gives administrative privileges?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ sudo usermod -aG sudo aya
```

17. Switch to your user and confirm the user identity?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ su -Aya
su: invalid option -- 'A'
Try 'su --help' for more information.

┌──(kali㊙kali)-[~/Desktop]
└─$ whoami
kali
```

18. Create a new group named `testgroup`?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo groupadd testgroup
```

19. Add your user to `testgroup`?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo usermod -aG testgroup aya
```

20. Add the group `testgroup` to the file that gives administrative privileges?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo usermod -aG sudo testgroup
usermod: user 'testgroup' does not exist
```

21. Remove your user from the file that gives administrative privileges?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo deluser aya sudo
info: Removing user `aya' from group `sudo' ...
```

22. Check if your user still have administrative privileges.

```
┌──(kali㉿kali)-[~/Desktop]
└─$ groups aya
aya : aya users testgroup
```

23. Check which groups your user belongs to?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ groups
kali adm dialout cdrom floppy sudo audio dip video plugdev users netdev bluet
ooth scanner wireshark kaboxer
```

Section 3: Permissions and Ownership

24. Set the permissions of `file2.txt` on the Desktop to allow the owner to read, write, and execute; the group to read and execute; and others to read?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ chmod 751 ~/Desktop/dir2/file2.txt
```

25. Check the permissions of `file2.txt` to verify the change?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ ls -l ~/Desktop/dir2/file2.txt
-rwxr-x--x 1 kali kali 19 Sep 22 15:53 /home/kali/Desktop/dir2/file2.txt
```

26. Change the ownership of `file2.txt` to your user?

```
┌──(kali㊌kali)-[~/Desktop]
└─$ sudo chown aya ~/Desktop/dir2/file2.txt
```

27. verify the ownership of `file2.txt`?

```
┌──(kali㊌kali)-[~/Desktop]
└─$ ls -l ~/Desktop/dir2/file2.txt
-rwxr-x--x 1 aya kali 19 Sep 22 15:53 /home/kali/Desktop/dir2/file2.txt
```

28. Change back the ownership of a file `file2.txt` ?

```
┌──(kali㊌kali)-[~/Desktop]
└─$ sudo chown root ~/Desktop/dir2/file2.txt
```

29. Grant write permission to everyone for `file2.txt`?

```
┌──(kali㊌kali)-[~/Desktop]
└─$ chmod a+w ~/Desktop/dir2/file2.txt
chmod: changing permissions of '/home/kali/Desktop/dir2/file2.txt': Operation
 not permitted
```

30. Remove the write permission for the group and others for `file2.txt`?

```
┌──(kali㊌kali)-[~/Desktop]
└─$ chmod go-w ~/Desktop/dir2/file2.txt
chmod: changing permissions of '/home/kali/Desktop/dir2/file2.txt': Operation
 not permitted
```

31. Delete `file2.txt` after making the necessary ownership and permission changes?

```
┌──(kali㊌kali)-[~/Desktop]
└─$ rm ~/Desktop/dir2/file2.txt
rm: remove write-protected regular file '/home/kali/Desktop/dir2/file2.txt'?
```

32. What command would you use to recursively change the permissions of all files and directories inside a folder named `project` to '755'?

```
┌──(kali㊌kali)-[~/Desktop]
└─$ chmod -R 755 project
chmod: cannot access 'project': No such file or directory
```

33. Install a system monitor tool that provides an interactive process viewer(htop)?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo apt install htop
Error: Unable to locate package htop
```

34. Display all running processes?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ ps aux
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.0  0.3  22788 13172 ?        Ss   14:35   0:02 /sbin/in
root           2  0.0  0.0      0     0 ?        S    14:35   0:00 [kthread
root           3  0.0  0.0      0     0 ?        S    14:35   0:00 [pool_wo
root           4  0.0  0.0      0     0 ?        I<   14:35   0:00 [kworker
root           5  0.0  0.0      0     0 ?        I<   14:35   0:00 [kworker
root           6  0.0  0.0      0     0 ?        I<   14:35   0:00 [kworker
root           7  0.0  0.0      0     0 ?        I<   14:35   0:00 [kworker
root          11  0.0  0.0      0     0 ?        I    14:35   0:00 [kworker
root          12  0.0  0.0      0     0 ?        I<   14:35   0:00 [kworker
root          13  0.0  0.0      0     0 ?        I    14:35   0:00 [rcu_tas
root          14  0.0  0.0      0     0 ?        I    14:35   0:00 [rcu_tas
root          15  0.0  0.0      0     0 ?        I    14:35   0:00 [rcu_tas
root          16  0.0  0.0      0     0 ?        S    14:35   0:00 [ksoftir
root          17  0.0  0.0      0     0 ?        I    14:35   0:04 [rcu_pre
root          18  0.0  0.0      0     0 ?        S    14:35   0:00 [migrati
root          19  0.0  0.0      0     0 ?        S    14:35   0:00 [idle_in
root          20  0.0  0.0      0     0 ?        S    14:35   0:00 [cpuhp/0
root          21  0.0  0.0      0     0 ?        S    14:35   0:00 [cpuhp/1
root          22  0.0  0.0      0     0 ?        S    14:35   0:00 [idle_in
root          23  0.0  0.0      0     0 ?        S    14:35   0:00 [migrati
root          24  0.0  0.0      0     0 ?        S    14:35   0:00 [ksoftir
root          26  0.0  0.0      0     0 ?        I<   14:35   0:00 [kworker
root          27  0.0  0.0      0     0 ?        S    14:35   0:00 [cpuhp/2
root          28  0.0  0.0      0     0 ?        S    14:35   0:00 [idle_in
root          29  0.0  0.0      0     0 ?        S    14:35   0:00 [migrati
root          30  0.0  0.0      0     0 ?        S    14:35   0:00 [ksoftir
root          32  0.0  0.0      0     0 ?        I<   14:35   0:00 [kworker
root          33  0.0  0.0      0     0 ?        S    14:35   0:00 [cpuhp/3
root          34  0.0  0.0      0     0 ?        S    14:35   0:00 [idle_in
root          25  0.0  0.0      0     0 ?        S    14:35   0:00 [migrati
```

35. Display a tree of all running processes?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ pstree
systemd─┬─ModemManager───3*[{ModemManager}]
        ├─NetworkManager───3*[{NetworkManager}]
        ├─accounts-daemon───3*[{accounts-daemon}]
        ├─agetty
        ├─colord───3*[{colord}]
        ├─cron
        ├─dbus-daemon
        ├─haveged
        ├─lightdm─┬─Xorg───{Xorg}
```

36. Open the interactive process viewer and identify a process by its PID?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ htop
Command 'htop' not found, but can be installed with:
sudo apt install htop
Do you want to install it? (N/y)N
```

37. Kill a process with a specific PID?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ kill 1118
```

38. Start an application and stop it using a command that kills processes by name(exeyes)?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ xeyes &
[3] 87279

┌──(kali㉿kali)-[~/Desktop]
└─$ kill 87279

[3]    terminated  xeyes
```

39. Restart the application, then stop it using the interactive process viewer?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ xeyes &
[3] 88548

┌──(kali㉿kali)-[~/Desktop]
└─$ kill 88548

[3]    terminated  xeyes
┌──(kali㉿kali)-[~/Desktop]
└─$ fg
[2]  - continued  xeyes
^Z
```

40. Run a command in the background, then bring it to the foreground(exeyes)?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ xclock
^Z
zsh: suspended  xclock

┌──(kali㉿kali)-[~/Desktop]
└─$ fg
[3]    continued  xclock
^Z
zsh: suspended  xclock
```

41. Check how long the system has been running?

```
┌──(kali㊀kali)-[~/Desktop]
└─$ uptime
 17:38:46 up  3:03,  1 user,  load average: 0.15, 0.11, 0.09
```

42. List all jobs running in the background?

```
┌──(kali㊀kali)-[~/Desktop]
└─$ jobs
[1]    suspended  xeyes
[2]  - suspended  xeyes
[3]  + suspended  xclock
```

Section 5: Networking Commands
43. Display the network configuration?

```
┌──(kali㊀kali)-[~/Desktop]
└─$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.60.128  netmask 255.255.255.0  broadcast 192.168.60.255
        inet6 fe80::38f0:adde:eaa9:2133  prefixlen 64  scopeid 0×20<link>
        ether 00:0c:29:09:60:7a  txqueuelen 1000  (Ethernet)
        RX packets 384  bytes 39942 (39.0 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 156  bytes 18514 (18.0 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0×10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 8  bytes 480 (480.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 8  bytes 480 (480.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

44. Check the IP address of your machine?

```
┌──(kali㊀kali)-[~/Desktop]
└─$ hostname -I
192.168.60.128

┌──(kali㊀kali)-[~/Desktop]
└─$ ip addr show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group def
ault qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
```

45. Test connectivity to an external server?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ ping -c 4 google.com

ping: google.com: Temporary failure in name resolution
```

46. Display the routing table?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ route -n
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
0.0.0.0         192.168.60.2    0.0.0.0         UG    100    0        0 eth0
192.168.60.0    0.0.0.0         255.255.255.0   U     100    0        0 eth0
```

47. Check the open ports and active connections?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ netstat -tuln
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
```

48. Show the IP address of the host machine and the VM, and verify if they are on the same network. 49. Trace the route to an external server?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.60.128  netmask 255.255.255.0  broadcast 192.168.60.255
        inet6 fe80::38f0:adde:eaa9:2133  prefixlen 64  scopeid 0×20<link>
        ether 00:0c:29:09:60:7a  txqueuelen 1000  (Ethernet)
        RX packets 385  bytes 40002 (39.0 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 165  bytes 19182 (18.7 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0×10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 8  bytes 480 (480.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 8  bytes 480 (480.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

4

49. Trace the route to an external server?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ traceroute google.com
google.com: Temporary failure in name resolution
Cannot handle "host" cmdline arg `google.com' on position 1 (argc 1)
```

50. Find out the default gateway?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ ip route | grep default
default via 192.168.60.2 dev eth0 proto dhcp src 192.168.60.128 metric 100
```

51. Check the MAC address of your network interface?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ ip link show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN mode DEFA
ULT group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP m
ode DEFAULT group default qlen 1000
    link/ether 00:0c:29:09:60:7a brd ff:ff:ff:ff:ff:ff
```

52. Ensure that the VM can access external networks?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ ping
ping: usage error: Destination address required

┌──(kali㊉kali)-[~/Desktop]
└─$ ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
From 192.168.60.2 icmp_seq=1 Destination Host Unreachable
From 192.168.60.2 icmp_seq=2 Destination Host Unreachable
From 192.168.60.2 icmp_seq=3 Destination Host Unreachable
From 192.168.60.2 icmp_seq=4 Destination Host Unreachable
From 192.168.60.2 icmp_seq=5 Destination Host Unreachable
```

Section 6: UFW Firewall

53. Enable the firewall?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ sudo ufw enable
[sudo] password for kali:
sudo: ufw: command not found
```

54. Allow SSH connections through the firewall?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ sudo ufw allow ssh
sudo: ufw: command not found
```

55. Deny all incoming traffic by default?

```
┌──(kali㊉kali)-[~/Desktop]
└─$ sudo ufw default deny incoming
sudo: ufw: command not found
```

56. Allow HTTP and HTTPS traffic?

```
┌──(kali㊎kali)-[~/Desktop]
└─$ sudo ufw allow http
sudo: ufw: command not found

┌──(kali㊎kali)-[~/Desktop]
└─$ sudo ufw allow https
sudo: ufw: command not found
```

57. Allow port 20?

```
┌──(kali㊎kali)-[~/Desktop]
└─$ sudo ufw allow 20
sudo: ufw: command not found
```

58. Reset the firewall settings?

```
┌──(kali㊎kali)-[~/Desktop]
└─$ sudo ufw reset
sudo: ufw: command not found
```

59. Delete a rule from the firewall.

```
┌──(kali㊎kali)-[~/Desktop]
└─$ sudo ufw delete allow ssh
sudo: ufw: command not found
```

60. Disable the firewall?

```
┌──(kali㊎kali)-[~/Desktop]
└─$ sudo ufw disable
sudo: ufw: command not found
```

61. View the stasudo ufw disabletus of the firewall?

```
┌──(kali㊎kali)-[~/Desktop]
└─$ sudo ufw status
sudo: ufw: command not found
```

62. Log firewall activity and view it?

```
┌──(kali㊎kali)-[~/Desktop]
└─$ sudo ufw logging on
sudo: ufw: command not found

┌──(kali㊎kali)-[~/Desktop]
└─$ cat /var/log/ufw.log
cat: /var/log/ufw.log: No such file or directory
```

Section 7: Searching and System Information

63. Delete the command history?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ history -c
fc: event not found: -c
```

64. Search for a kali in the `/etc/passwd` file?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ grep kali /ect/passwd
grep: /ect/passwd: No such file or directory
```

65. Search for a kali in the `/etc/group` file?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ grep kali /ect/group
grep: /ect/group: No such file or directory
```

66. Locate the `passwd` file?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ locate passwd
/var/lib/plocate/plocate.db: No such file or directory

┌──(kali㉿kali)-[~/Desktop]
└─$ which passwd
/usr/bin/passwd
```

67. Locate the shadow file and open it?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo cat /ect/shadow
cat: /ect/shadow: No such file or directory
```

68. Search for all configuration files in the `/etc` directory?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ find /ect -type f -name "*.conf"
find: '/ect': No such file or directory
```

69. Search recursively for a specific word in the `/var/log` directory?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ grep -r "var" /var/log
grep: /var/log/lightdm: Permission denied
/var/log/fontconfig.log:/var/cache/fontconfig: cleaning cache directory
grep: /var/log/vmware-vmtoolsd-kali.log: Permission denied
grep: /var/log/vmware-vmusr-kali.log: Permission denied
/var/log/dpkg.log:2024-05-28 02:23:09 install libefivar1t64:amd64 <none> 38
.1
/var/log/dpkg.log:2024-05-28 02:23:09 status half-installed libefivar1t64:a
```

70. View the system's kernel version?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ uname -r
6.6.15-amd64
```

71. Display the system's memory usage?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ free -h
               total        used        free      shared  buff/cache   availa
ble
Mem:           4.1Gi       901Mi       2.8Gi       4.1Mi       670Mi         3.
2Gi
Swap:          1.0Gi          0B       1.0Gi
```

72. Show the system's disk usage?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            2.1G     0  2.1G   0% /dev
tmpfs           421M  1.3M  419M   1% /run
/dev/sda1        79G   14G   61G  19% /
```

73. Check the system's uptime and load average?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ uptime
 00:09:03 up  4:24,  1 user,  load average: 0.22, 0.17, 0.11
```

74. Display the current logged-in users?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ who
kali     tty7         2024-09-22 09:52 (:0)
```

75. Check the identity of the current user?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ whoami
kali
```

76. View the `/var/log/auth.log` file?

```
┌──(kali㊙kali)-[~/Desktop]
└─$ cat /var/log/auth.log
cat: /var/log/auth.log: No such file or directory

┌──(kali㊙kali)-[~/Desktop]
└─$ sudo less /var/log/auth.log
/var/log/auth.log: No such file or directory
```

77. Shred the `auth.log` file securely?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo shred -u /var/log/auth.log
shred: /var/log/auth.log: failed to open for writing: No such file or directo
ry
```

78. How do you lock a user account to prevent them from logging in?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo passwd -l username
passwd: user 'username' does not exist
```

79. What command would you use to change a user's default shell?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo chsh -s /bin/bash kali
```

80. Display the system's boot messages?

```
┌──(kali㉿kali)-[~/Desktop]
└─$ dmesg
[    0.000000] Linux version 6.6.15-amd64 (devel@kali.org) (gcc-13 (Debian
.2.0-24) 13.2.0, GNU ld (GNU Binutils for Debian) 2.42) #1 SMP PREEMPT_DYNA
C Kali 6.6.15-2kali1 (2024-05-17)
[    0.000000] Command line: BOOT_IMAGE=/boot/vmlinuz-6.6.15-amd64 root=UUI
aebd40ed-7f3c-4477-8f32-c46ce438777a ro quiet splash
[    0.000000] Disabled fast string operations
[    0.000000] BIOS-provided physical RAM map:
[    0.000000] BIOS-e820: [mem 0×0000000000000000-0×000000000009f3ff] usabl
[    0.000000] BIOS-e820: [mem 0×000000000009f400-0×000000000009ffff] reser
d
[    0.000000] BIOS-e820: [mem 0×00000000000dc000-0×00000000000fffff] reser
d
[    0.000000] BIOS-e820: [mem 0×0000000000100000-0×00000000bfedffff] usabl
[    0.000000] BIOS-e820: [mem 0×00000000bfee0000-0×00000000bfefefff] ACPI
ta
[    0.000000] BIOS-e820: [mem 0×00000000bfeff000-0×00000000bfefffff] ACPI
S
[    0.000000] BIOS-e820: [mem 0×00000000bff00000-0×00000000bfffffff] usabl
[    0.000000] BIOS-e820: [mem 0×00000000f0000000-0×00000000f7ffffff] reser
```

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