DTL – ASSIGNMENT LINUX COMMANDS

Name: Dhananjay Kokate

MIS: 112103073

Division: 1

Batch: S5

1.pwd

2. mkdir

```
dhananjay@Profile:~/112103073$ mkdir dir1
dhananjay@Profile:~/112103073$ ls
dir1
dhananjay@Profile:~/112103073$ mkdir dir2 dir3
dhananjay@Profile:~/112103073$ ls
dir1 dir2 dir3
dhananjay@Profile:~/112103073$ cd dir1
dhananjay@Profile:~/112103073/dir1$ ls
dhananjay@Profile:~/112103073/dir1$ cd ..
dhananjay@Profile:~/112103073$ ls
dir1 dir2 dir3
dhananjay@Profile:~/112103073$
```

4.rmdir

```
dhananjay@Profile: ~/112103073 X
dhananjay@Profile:~/112103073$ mkdir dir1
dhananjay@Profile:~/112103073$ ls
dhananjay@Profile:~/112103073$ mkdir dir2 dir3
dhananjay@Profile:~/112103073$ ls
dhananjay@Profile:~/112103073$ cd dir1
dhananjay@Profile:~/112103073/dir1$ ls
dhananjay@Profile:~/112103073/dir1$ cd ...
dhananjay@Profile:~/112103073$ ls
dhananjay@Profile:~/112103073$ rmdir dir3
dhananjay@Profile:~/112103073$ ls
dhananjay@Profile:~/112103073$ cd dir2
dhananjay@Profile:~/112103073/dir2$ mkdir newdir
dhananjay@Profile:~/112103073/dir2$ cd ...
dhananjay@Profile:~/112103073$ rmdir dir2
rmdir: failed to remove 'dir2': Directory not empty
dhananjay@Profile:~/112103073$ rm -rf dir2
dhananjay@Profile:~/112103073$ ls
dhananjay@Profile:~/112103073$
```

```
dhananjay@Profile: ~/112103073 × + v

dhananjay@Profile: ~/112103073/dir1/subdir$
```

6.touch

```
dhananjay@Profile:~/112103073$ ls
dir1
dhananjay@Profile:~/112103073$ touch file1.txt
dhananjay@Profile:~/112103073$ ls
dir1 file1.txt
dhananjay@Profile:~/112103073$ touch /home/dhananjay/112103073/dir1/newfile.txt
dhananjay@Profile:~/112103073$ cd dtr1
-bash: cd: dtr1: No such file or directory
dhananjay@Profile:~/112103073$ cd dir1
dhananjay@Profile:~/112103073/dir1$ ls
newfile.txt subdir
dhananjay@Profile:~/112103073/dir1$
```

7. rm

```
dhananjay@Profile:~/112103073 \times + \fractrick

dhananjay@Profile:~/112103073$ touch file1.txt

dhananjay@Profile:~/112103073$ touch file1.txt

dhananjay@Profile:~/112103073$ touch /home/dhananjay/112103073/dir1/newfile.txt

dhananjay@Profile:~/112103073$ cd dtr1

-bash: cd: dtr1: No such file or directory

dhananjay@Profile:~/112103073$ cd dir1

dhananjay@Profile:~/112103073/dir1$ ls

newfile.txt subdir

dhananjay@Profile:~/112103073/dir1$ rm newfile.txt

dhananjay@Profile:~/112103073/dir1$ rm subdir

dhananjay@Profile:~/112103073/dir1$ rmdir subdir

dhananjay@Profile:~/112103073/dir1$ ls

subdir

dhananjay@Profile:~/112103073/dir1$ ls

dhananjay@Profile:~/112103073/dir1$ ls

dhananjay@Profile:~/112103073/dir1$ ls

dhananjay@Profile:~/112103073/dir1$ ls

dhananjay@Profile:~/112103073/dir1$ ls
```

8. echo

```
dhananjay@Profile:~/112103073 × + \rightarrow

dhananjay@Profile:~/112103073/dtl/div1$ echo DHANANJAY

DHANANJAY

dhananjay@Profile:~/112103073/dtl/div1$ echo " DTL Assignment "

DTL Assignment

dhananjay@Profile:~/112103073/dtl/div1$ echo " COEP Tech"

COEP Tech

dhananjay@Profile:~/112103073/dtl/div1$ echo -e "COEP \is \my college"

COEP \is \my college

dhananjay@Profile:~/112103073/dtl/div1$ echo -e "COEP \is \my \college"

COEP \is \my dhananjay@Profile:~/112103073/dtl/div1$ echo -e "COEP \bis \bmy \bcollege"

COEP \is \my dhananjay@Profile:~/112103073/dtl/div1$ echo -e "COEP \bis \bmy \bcollege"

COEPismycollege

dhananjay@Profile:~/112103073/dtl/div1$
```

9.cat

```
dhananjay@Profile: ~/112103073 ×
                       + ~
dhananjay@Profile:~/112103073/dtl/div1$ ls
dhananjay@Profile:~/112103073/dtl/div1$ cat > file1.txt
^C
dhananjay@Profile:~/112103073/dtl/div1$ ls
file1.txt
dhananjay@Profile:~/112103073/dtl/div1$ cat > file1.txt
Hello I'm Dhananjay
dhananjay@Profile:~/112103073/dtl/div1$ cat >> file1.txt
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$ cat file1.txt
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$
dhananjay@Profile:~/112103073/dtl/div1$ cat >> file2.txt
This line is in file2.
^C
dhananjay@Profile:~/112103073/dtl/div1$ cat file1.txt >> file2.txt
dhananjay@Profile:~/112103073/dtl/div1$ cat file2.txt
This line is in file2.
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$ cat > file3.txt
I study in COEP.
^C
dhananjay@Profile:~/112103073/dtl/div1$ cat file1.txt
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$ cat file2.txt
This line is in file2.
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$ cat file3.txt
I study in COEP.
```

```
dhananjay@Profile:~/112103073/dtl/div1$ cat > file3.txt
I study in COEP.
^C
dhananjay@Profile:~/112103073/dtl/div1$ cat file1.txt
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$ cat file2.txt
This line is in file2.
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$ cat file3.txt
I study in COEP.
dhananjay@Profile:~/112103073/dtl/div1$ cat file1.txt file3.txt > mergedfile.txt
dhananjay@Profile:~/112103073/dtl/div1$ cat mergedfile.txt
Hello I'm Dhananjay
This line will get appended to the content of file1.
I study in COEP.
dhananjay@Profile:~/112103073/dtl/div1$
```

10. cp

```
dhananjay@Profile: ~/112103073 ×
dhananjay@Profile:~/112103073/dtl/div1$ cd ...
dhananjay@Profile:~/112103073/dtl$ ls
dhananjay@Profile:~/112103073/dtl$ mkdir dir2 dir2
mkdir: cannot create directory 'dir2': File exists
dhananjay@Profile:~/112103073/dtl$ mkdir dir3
dhananjay@Profile:~/112103073/dtl$ ls
dhananjay@Profile:~/112103073/dtl$ touch file1.txt
dhananjay@Profile:~/112103073/dtl$ ls
dir2 dir3 div1 file1.txt
dhananjay@Profile:~/112103073/dtl$ cp file1.txt /home/dhananjay/112103073/dtl/dir2
dhananjay@Profile:~/112103073/dtl$ ls
dir2 dir3 div1 file1.txt
dhananjay@Profile:~/112103073/dtl$ cd dir2
dhananjay@Profile:~/112103073/dtl/dir2$ ls
file1.txt
dhananjay@Profile:~/112103073/dtl/dir2$
```

11. mv

```
dhananjay@Profile:~/dtl$ mkdir dir1 dir2 dir3
dhananjay@Profile:~/dtl$ touch file1.txt
dhananjay@Profile:~/dtl$ ls
dir1 dir2 dir3 file1.txt
dhananjay@Profile:~/dtl$ mv file1.txt /home/dhananjay/dtl/dir3
dhananjay@Profile:~/dtl$ l
dir1/ dir2/ dir3/
dhananjay@Profile:~/dtl$ ls
dir1 dir2 dir3
dhananjay@Profile:~/dtl$ cd dir3
dhananjay@Profile:~/dtl$ cs dir3
dhananjay@Profile:~/dtl/dir3$ ls
file1.txt
dhananjay@Profile:~/dtl/dir3$
```

```
dhananjay@Profile: ~/112103073 ×
dhananjay@Profile:~/112103073$ ls
dir1 dtl file1.txt
dhananjay@Profile:~/112103073$ cd dir1
dhananjay@Profile:~/112103073/dir1$ ls
dhananjay@Profile:~/112103073/dir1$ cd dtl
-bash: cd: dtl: No such file or directory
dhananjay@Profile:~/112103073/dir1$ cd ...
dhananjay@Profile:~/112103073$ cd dtl
dhananjay@Profile:~/112103073/dtl$ ls
dir2 dir3 div1 file1.txt
dhananjay@Profile:~/112103073/dtl$ cd div1
dhananjay@Profile:~/112103073/dtl/div1$ ls
file1.txt file2.txt file3.txt mergedfile.txt
dhananjay@Profile:~/112103073/dtl/div1$ ls -a
       file1.txt file2.txt file3.txt mergedfile.txt
dhananjay@Profile:~/112103073/dtl/div1$ ls *[0-9]*
file1.txt file2.txt file3.txt
dhananjay@Profile:~/112103073/dtl/div1$ ls -f
mergedfile.txt file1.txt file2.txt file3.txt
dhananjay@Profile:~/112103073/dtl/div1$ ls -F
file1.txt file2.txt file3.txt mergedfile.txt
dhananjay@Profile:~/112103073/dtl/div1$ ls -l
total 16
-rw-r--r-- 1 dhananjay dhananjay 74 Feb 7 20:20 file1.txt
-rw-r--r-- 1 dhananjay dhananjay 97 Feb 7 20:21 file2.txt
-rw-r--r-- 1 dhananjay dhananjay 17 Feb 7 20:22 file3.txt
-rw-r--r-- 1 dhananjay dhananjay 91 Feb 7 20:23 mergedfile.txt
dhananjay@Profile:~/112103073/dtl/div1$ chmod u+x file1.txt
dhananjay@Profile:~/112103073/dtl/div1$ ls -l
total 16
-rwxr--r-- 1 dhananjay dhananjay 74 Feb 7 20:20 file1.txt
-rw-r--r-- 1 dhananjay dhananjay 97 Feb 7 20:21 file2.txt
-rw-r--r-- 1 dhananjay dhananjay 17 Feb 7 20:22 file3.txt
-rw-r--r-- 1 dhananjay dhananjay 91 Feb 7 20:23 mergedfile.txt
dhananjay@Profile:~/112103073/dtl/div1$
```

13. less

dhananjay@Profile: ~/112103073 × + ~ - n ×

dhananjay@Profile:~/112163073/dtl/div1\$ cat > pollution.txt
Pollution is the introduction of harmful materials into the environment. These harmful materials are called pollutants. Pollutants can be natura l, such as volcanic ash. They can also be created by human activity, such as trash or runoff produced by factories. Pollutants damage the qualit y of air, water, and land.

Many things that are useful to people produce pollution. Cars spew pollutants from their exhaust pipes. Burning coal to create electricity pollutes the air. Industries and homes generate garbage and sewage that can pollute the land and water. Pesticides-chemical poisons used to kill weed s and insects-seep into waterways and harm wildlife.

All living things-from one-celled microbes to blue whales-depend on Earth's supply of air and water. When these resources are polluted, all form s of life are threatened.

Pollution is a global problem. Although urban areas are usually more polluted than the countryside, pollution can spread to remote places where no people live. For example, pesticides and other chemicals have been found in the Antarctic ice sheet. In the middle of the northern Pacific Oc ean, a huge collection of microscopic plastic particles forms what is known as the Great Pacific Garbage Patch.

Air and water currents carry pollution. Ocean currents and migrating fish carry marine pollutants far and wide. Winds can pick up radioactive ma terial accidentally released from a nuclear reactor and scatter it around the world. Smoke from a factory in one country drifts into another cou ntry.

In the past, visitors to Big Bend National Park in the U.S. state of Texas could see 290 kilometers (180 miles) across the vast landscape. Now, coal-burning power plants in Texas and the neighboring state of Chihuahua, Mexico have spewed so much pollution into the air that visitors to Big Bend can sometimes see only 50 kilometers (30 miles).

The three major types of pollution are air pollution, water pollution, and land pollution.

103073/dtl/div1**\$ ls** file1.txt file2.txt file3.txt mergedfile.txt pollution.txt dhananjay@Profile:~/112103073/dtl/div1\$ less pollution.txt dhananjay@Profile:~/112103073/dtl/div1\$

dhananjay@Profile: ~/112103073 × + ~

Pollution is the introduction of harmful materials into the environment. These harmful materials are called pollutants. Pollutants can be natura l, such as volcanic ash. They can also be created by human activity, such as trash or runoff produced by factories. Pollutants damage the qualit y of air, water, and land.

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The three major types of pollution are air pollution, water pollution, and land pollution. pollution.txt (END)

14. head

```
dhananjay@Profile:~/112103073/dtl/diri$ ls
file1.txt file2.txt file3.txt pollution.txt
dhananjay@Profile:~/112103073/dtl/diri$ head pollution.txt
Pollution is the introduction of harmful materials into the environment. These harmful materials are called pollutants. Pollutants can be natura
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y of air, water, and land.

Many things that are useful to people produce pollution. Cars spew pollutants from their exhaust pipes. Burning coal to create electricity pollu
tes the air. Industries and homes generate garbage and sewage that can pollute the land and water. Pesticides-chemical poisons used to kill weed
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All living things—from one-celled microbes to blue whales-depend on Earth's supply of air and water. When these resources are polluted, all form
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Pollution is a global problem. Although urban areas are usually more polluted than the countryside, pollution can spread to remote places where
no people live. For example, pesticides and other chemicals have been found in the Antarctic ice sheet. In the middle of the northern Pacific Oc
ean, a huge collection of microscopic plastic particles forms what is known as the Great Pacific Garbage Patch.

Air and water currents carry pollution. Ocean currents and migrating fish carry marine pollutants far and wide. Winds can pick up radioactive ma
terial accidentally released from a nuclear reactor and scatter it around the world. Smoke from a factory in one country drifts into another cou
ntry.

dhananjay@Profile:~/112103073/dtl/diri$
```

15. tail

```
dhamanjay@Profile:-/112103073/dtl/diri$ ls
filel.txt file2.txt file3.txt pollution.txt
dhamanjay@Profile:-/112103073/dtl/diri$ tail pollution.txt

All living things-from one-celled microbes to blue whales-depend on Earth's supply of air and water. When these resources are polluted, all form
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Pollution is a global problem. Although urban areas are usually more polluted than the countryside, pollution can spread to remote places where
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ean, a huge collection of microscopic plastic particles forms what is known as the Great Pacific Garbage Patch.

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coal-burning power plants in Texas and the neighboring state of Chihuahua, Mexico have spewed so much pollution into the air that visitors to Bi
g Bend can sometimes see only 50 kilometers (30 miles).

The three major types of pollution are air pollution, water pollution, and land pollution.
dhananjay@Profile:-/112103073/dtl/diri$
```

17. find

18. df

```
dhananjay@Profile: ~/dtl/dir1
dhananjay@Profile:~$ cd dtl
dhananjay@Profile:~/dtl$ ls
dhananjay@Profile:~/dtl$ cd dir1
dhananjay@Profile:~/dtl/dir1$ df
                               Used Available Use% Mounted on
Filesystem
               1K-blocks
                                                1% /
/dev/sdb
               263174212
                           1531640 248204416
                                                1% /mnt/wsl
                                  4
none
                 1970428
                                      1970424
tools
               475474244 225655224 249819020
                                               48% /init
                 1970428
                                  Θ
                                      1970428
                                                0% /run
none
                                                0% /run/lock
none
                 1970428
                                      1970428
                                                0% /run/shm
none
                 1970428
                                  Θ
                                      1970428
                                                0% /run/user
none
                 1970428
                                  0
                                      1970428
tmpfs
                                               0% /sys/fs/cgroup
                 1970428
                                  Θ
                                      1970428
                                               48% /usr/lib/wsl/drivers
drivers
               475474244 225655224 249819020
lib
               475474244 225655224 249819020
                                               48% /usr/lib/wsl/lib
drvfs
               475474244 225655224 249819020
                                               48% /mnt/c
dhananjay@Profile:~/dtl/dir1$
```

```
dhananjay@Profile: ~/dtl/dir1
dhananjav@Profile:~/dtl/dir1$ df -h
Filesystem
                 Size
                        Used Avail Use% Mounted on
/dev/sdb
                 251G
                        1.5G
                              237G
                                      1% /
                                      1% /mnt/wsl
                 1.9G
                              1.9G
none
                        4.0K
                 454G
                        216G
                              239G
                                     48% /init
tools
                 1.9G
                           0
                              1.9G
                                      0% /run
none
                 1.9G
                              1.9G
                                      0% /run/lock
none
                           0
                 1.9G
                           0
                             1.9G
                                      0% /run/shm
none
                 1.9G
                           0
                              1.9G
                                      0% /run/user
none
                 1.9G
                           0
                              1.9G
                                      0% /sys/fs/cgroup
tmpfs
                                     48% /usr/lib/wsl/drivers
drivers
                 454G
                        216G
                              239G
                                     48% /usr/lib/wsl/lib
lib
                 454G
                        216G
                              239G
drvfs
                        216G
                              239G
                                     48% /mnt/c
                 454G
dhananjay@Profile:~/dtl/dir1$
```

19. du

```
dhananjay@Profile: ~/dtl/dir1
dhananjay@Profile:~/dtl/dir1$ du /home/dhananjay/dtl/
        /home/dhananjay/dtl/dir3
4
        /home/dhananjay/dtl/dir2
8
        /home/dhananjay/dtl/dir1
20
        /home/dhananjay/dtl/
dhananjay@Profile:~/dtl/dir1$ du -s /home/dhananjay/dtl/
20
        /home/dhananjay/dtl/
dhananjay@Profile:~/dtl/dir1$ du -m /home/dhananjay/dtl/
        /home/dhananjay/dtl/dir3
1
1
        /home/dhananjay/dtl/dir2
1
        /home/dhananjay/dtl/dir1
1
        /home/dhananjay/dtl/
dhananjay@Profile:~/dtl/dir1$ du -k /home/dhananjay/dtl/
4
        /home/dhananjay/dtl/dir3
4
        /home/dhananjay/dtl/dir2
8
        /home/dhananjay/dtl/dir1
20
        /home/dhananjay/dtl/
dhananjay@Profile:~/dtl/dir1$ du -h /home/dhananjay/dtl/
4.0K
        /home/dhananjay/dtl/dir3
4.0K
        /home/dhananjay/dtl/dir2
8.0K
        /home/dhananjay/dtl/dir1
20K
        /home/dhananjay/dtl/
dhananjay@Profile:~/dtl/dir1$
```

```
dhananjay@Profile: ~/112103073 ×
dhananjay@Profile:~/112103073/dtl/div1$ ls
dhananjay@Profile:~/112103073/dtl/div1$ cat > file1.txt
^C
dhananjay@Profile:~/112103073/dtl/div1$ ls
file1.txt
dhananjay@Profile:~/112103073/dtl/div1$ cat > file1.txt
Hello I'm Dhananjay
dhananjay@Profile:~/112103073/dtl/div1$ cat >> file1.txt
This line will get appended to the content of file1.
^C
dhananjay@Profile:~/112103073/dtl/div1$ cat file1.txt
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$
dhananjay@Profile:~/112103073/dtl/div1$ cat >> file2.txt
This line is in file2.
dhananjay@Profile:~/112103073/dtl/div1$ cat file1.txt >> file2.txt
dhananjay@Profile:~/112103073/dtl/div1$ cat file2.txt
This line is in file2.
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$ cat > file3.txt
I study in COEP.
^C
dhananjay@Profile:~/112103073/dtl/div1$ cat file1.txt
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$ cat file2.txt
This line is in file2.
Hello I'm Dhananjay
This line will get appended to the content of file1.
dhananjay@Profile:~/112103073/dtl/div1$ cat file3.txt
I study in COEP.
```

21. tar

22. zip unzip

23. sudo

```
dhananjay@Profile:~/dtl$ sudo apt install zip
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
zip is already the newest version (3.0-12build2).
0 upgraded, 0 newly installed, 0 to remove and 40 not upgraded.
dhananjay@Profile:~/dtl$
```

24. chmod

```
dhananiay@Profile: ~/112103073 ×
                       + ~
dhananjay@Profile:~/112103073/dtl/dir1$ ls
file1.txt file2.txt file3.txt pollution.txt
dhananjay@Profile:~/112103073/dtl/dir1$ ls -l
total 4
-rw-r--r-- 1 dhananjay dhananjay
                                   0 Feb
                                          7 21:48 file1.txt
-rw-r--r-- 1 dhananjay dhananjay
                                   0 Feb
                                          7 21:48 file2.txt
                                   0 Feb
-rw-r--r-- 1 dhananjay dhananjay
                                          7 21:48 file3.txt
-rw-r--r-- 1 dhananjay dhananjay 1971 Feb 7 21:44 pollution.txt
dhananjay@Profile:~/112103073/dtl/dir1$ chmod +x file2.txt
dhananjay@Profile:~/112103073/dtl/dir1$ ls
file1.txt file2.txt file3.txt pollution.txt
dhananjay@Profile:~/112103073/dtl/dir1$ ls -l
total 4
-rw-r--r-- 1 dhananjay dhananjay
                                   0 Feb 7 21:48 file1.txt
-rwxr-xr-x 1 dhananjay dhananjay
                                   0 Feb 7 21:48 file2.txt
-rw-r--r-- 1 dhananjay dhananjay 0 Feb 7 21:48 file3.txt
-rw-r--r-- 1 dhananjay dhananjay 1971 Feb 7 21:44 pollution.txt
dhananjay@Profile:~/112103073/dtl/dir1$ chmod +777 file1.txt
dhananjay@Profile:~/112103073/dtl/dir1$ ls -l
total 4
-rwxrwxrwx 1 dhananjay dhananjay
                                   0 Feb 7 21:48 file1.txt
-rwxr-xr-x 1 dhananjay dhananjay
                                   0 Feb 7 21:48 file2.txt
                                 0 Feb 7 21:48 file3.txt
-rw-r--r-- 1 dhananjay dhananjay
-rw-r--r-- 1 dhananjay dhananjay 1971 Feb 7 21:44 pollution.txt
dhananjay@Profile:~/112103073/dtl/dir1$ chmod -311 file2.txt
dhananjay@Profile:~/112103073/dtl/dir1$ ls -l
total 4
-rwxrwxrwx 1 dhananjay dhananjay
                                   0 Feb 7 21:48 file1.txt
-r--r-- 1 dhananjay dhananjay
                                   0 Feb 7 21:48 file2.txt
                                 0 Feb 7 21:48 file3.txt
-rw-r--r-- 1 dhananjay dhananjay
-rw-r--r-- 1 dhananjay dhananjay 1971 Feb
                                          7 21:44 pollution.txt
dhananjay@Profile:~/112103073/dtl/dir1$
```

25. hostname

```
dhananjay@Profile:~/112103073 × + ∨

dhananjay@Profile:~/112103073/dtl/dir1$ hostname

Profile

dhananjay@Profile:~/112103073/dtl/dir1$
```

```
dhananjay@Profile: ~/112103073 ×
dhananjay@Profile:~/112103073/dtl$ whatis ifconfig
ifconfig (8) - configure a network interface
dhananjay@Profile:~/112103073/dtl$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
inet 172.20.217.241 netmask 255.255.240.0 broadcast 172.20.223.255
         inet6 fe80::215:5dff:fec0:5f2b prefixlen 64 scopeid 0x20<link>
         ether 00:15:5d:c0:5f:2b txqueuelen 1000 (Ethernet)
         RX packets 5636 bytes 1161466 (1.1 MB)
         RX errors 0 dropped 0 overruns 0 frame 0
         TX packets 413 bytes 34724 (34.7 KB)
         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 0x10<host>
         loop txqueuelen 1000 (Local Loopback)
         RX packets 0 bytes 0 (0.0 B)
         RX errors 0 dropped 0 overruns 0 frame 0 TX packets 0 bytes 0 (0.0 B)
         TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
dhananjay@Profile:~/112103073/dtl$ ifconfig -v
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
         inet 172.20.217.241 netmask 255.255.240.0 broadcast 172.20.223.255
inet6 fe80::215:5dff:fec0:5f2b prefixlen 64 scopeid 0x20<link>
         ether 00:15:5d:c0:5f:2b txqueuelen 1000 (Ethernet)
         RX packets 5636 bytes 1161466 (1.1 MB)
         RX errors 0 dropped 0 overruns 0 frame 0
         TX packets 413 bytes 34724 (34.7 KB)
         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 0x10<host>
         loop txqueuelen 1000 (Local Loopback)
         RX packets 0 bytes 0 (0.0 B)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 0 bytes 0 (0.0 B)
         TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
dhananjay@Profile:~/112103073/dtl$ ifconfig -s
            MTU
                                                      TX-OK TX-ERR TX-DRP TX-OVR Flg
                    RX-OK RX-ERR RX-DRP RX-OVR
Iface
                     5636
                                0
                                        0 0
                                                                          0
                                                                                  0 BMRU
eth0
           1500
                                                        413
                                                                  0
                                                                                  0 LRU
lo
          65536
                        0
                                0
                                        0 0
                                                          0
                                                                  0
                                                                          Θ
dhananjay@Profile:~/112103073/dtl$
```

```
dhananjay@Profile: ~/112103073 ×
dhananjay@Profile:~/112103073/dtl$ free
                                          free
                                                     shared
                                                             buff/cache
               total
                             used
                                                                           available
                                                                 185000
             3940860
                            86592
                                       3669268
                                                         72
                                                                             3645724
Mem:
             1048576
                                Θ
                                       1048576
Swap:
dhananjay@Profile:~/112103073/dtl$ free -m
                                                             buff/cache
                                                                           available
               total
                             used
                                          free
                                                    shared
Mem:
                3848
                               84
                                          3583
                                                         0
                                                                    180
                                                                                3560
                                          1024
Swap:
                1024
                                0
dhananjay@Profile:~/112103073/dtl$ free -k
               total
                                          free
                                                    shared
                                                             buff/cache
                                                                           available
                             used
Mem:
             3940860
                            86396
                                       3669464
                                                         72
                                                                 185000
                                                                             3645920
             1048576
Swap:
                                       1048576
dhananjay@Profile:~/112103073/dtl$ free -b
               total
                                                             buff/cache
                                                                           available
                             used
                                          free
                                                     shared
                                                              189440000
Mem:
          4035440640
                         88604672
                                   3757395968
                                                     73728
                                                                         3733286912
          1073741824
                                0 1073741824
Swap:
dhananjay@Profile:~/112103073/dtl$
```

28. watch

```
dhananjay@Profile: ~/112103073 ×
Every 2.0s: free -m
                                                                            buff/cache
                                                                                             available
                   total
                                    used
                                                    free
                                                                 shared
                                                    358<mark>2</mark>
1024
Mem:
                     3848
                                       84
                                                                        0
                                                                                     181
                                                                                                   3559
                     1024
                                        0
Swap:
```

```
dhananjay@Profile: ~/112103073 ×
dhananjay@Profile:~/112103073/dtl$ cal
   February 2023
Su Mo Tu We Th Fr Sa
           1
              2
                  3
                     4
       7
          8
             9 10 11
 5
    6
12 13 14 15 16 17 18
  20
      21 22 23 24 25
26 27 28
dhananjay@Profile:~/112103073/dtl$ ncal
    February 2023
       5 12 19 26
Su
Мо
       6
         13 20 27
       7
         14 21 28
Tu
       8 15 22
We
    1
Th
    2
       9 16 23
\operatorname{Fr}
    3 10 17 24
    4 11 18 25
Sa
dhananjay@Profile:~/112103073/dtl$
```

```
dhananjay@Profile: ~/112103073 × + ~
 dhananjay@Profile:~/112103073/dtl$ cal 2023
                                                     2023
February
Su Mo Tu We Th Fr Sa
1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28
                                                                                                                                March
                                                                                                             Su Mo Tu We Th Fr Sa
1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31
Su Mo Tu We Th Fr Sa
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
               31
        30
                                                       Su Mo Tu We
1 2 3
7 8 9 10
                                                                                            Fr Sa
5 6
                                                                                                              Su Mo Tu We Th Fr
1 2
4 5 6 7 8 9
 Su Mo Tu We Th Fr Sa
                                                                                     Th
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
                                                       1 2
7 8 9
14 15 16
21 22 23
28 29 30
                                                                            10 11 12 13
17 18 19 20
24 25 26 27
31
                                                                                                           4 5 6 7 8
11 12 13 14 15
18 19 20 21 22
25 26 27 28 29
                                                                                                                                                   16 17
23 24
July
Su Mo Tu We Th Fr Sa
1
6 7 8
                                                      August
Su Mo Tu We Th
1 2 3
6 7 8 9 10
                                                                                                                           September
                                                                                                              Su Mo Tu We Th Fr Sa
1 2
3 4 5 6 7 8 9
                                                                                            Fr Sa
4 5
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31
                                                                                                             3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
                                                     6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31
               October
                                                                       November
                                                                                                                             December
                                                      Su Mo Tu We Th Fr Sa
1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
Su Mo Tu We Th Fr Sa
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
        30
               31
 dhananjay@Profile:~/112103073/dtl$
```

30. useradd

31. userdel

```
dhananjay@Profile:~/112103073 × + \

dhananjay@Profile:~/112103073/dtl$ ls /home/
dhananjay vampire
dhananjay@Profile:~/112103073/dtl$ sudo userdel -r vampire
userdel: vampire mail spool (/var/mail/vampire) not found
dhananjay@Profile:~/112103073/dtl$ ls /home/
dhananjay
dhananjay@Profile:~/112103073/dtl$
```

32. top

```
dhananiav@Profile: ~
top - 22:39:22 up 1:00, 0 users, load average: 0.00, 0.00, 0.00
Tasks: 6 total, 1 running, 4 sleeping, 1 stopped, 0 zomb
Tasks: 6 total, 1 running, 4 sleeping, %Cpu(s): 0.0 us, 0.0 sy, 0.0 ni,100.0 id, MiB Mem : 3848.5 total, 3579.3 free,
           6 total,
                                                                             0 zombie
                                                          0.0 wa, 0.0 hi, 0.0 si, 0.0 st
                                                         85.8 used,
                                                                          183.4 buff/cache
               1024.0 total,
                                    1024.0 free,
MiB Swap:
                                                           0.0 used.
                                                                           3557.7 avail Mem
  PID USER
                    PR
                         NI
                                 VIRT
                                           RES
                                                    SHR S
                                                              %CPU %MEM
                                                                                 TIME+ COMMAND
                                                                               0:00.04 init
     1 root
                           0
                                  1816
                                           1184
                                                    1108 S
                                                               0.0
                                                                       0.0
     8 root
                    20
                           0
                                 2164
                                            376
                                                       0
                                                               0.0
                                                                       0.0
                                                                               0:00.00 init
                                                                              0:00.60 init
     9 root
                    20
                           0
                                 2172
                                            376
                                                       0 S
                                                               0.0
                                                                       0.0
    10 dhananj+
                    20
                           0
                                 6332
                                          5356
                                                   3504 S
                                                               0.0
                                                                       0.1
                                                                              0:00.83 bash
                    20
                                 4032
                                           3036
                                                   2344
                                                               0.0
                                                                               0:00.03 watch
   377 dhananj+
                           0
                                                                       0.1
  555 dhananj+
                    20
                           0
                                 7796
                                          3644
                                                   3044 R
                                                                       0.1
                                                                              0:00.00 top
                                                               0.0
```

33 ping

```
dhananjay@Profile: $ ping www.instagram.com
PING z-p42-instagram.c10r.instagram.com (157.240.237.174) 56(84) bytes of data.
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=1 ttl=49 time=70.4 ms 64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=2 ttl=49 time=132 ms 64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=3 ttl=49 time=91.3 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=4 ttl=49 time=80.7 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=5 ttl=49 time=80.7 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=5 ttl=49 time=69.2 ms
                                                                                    (157.240.237.174): icmp_seq=7 ttl=49 time=49.5 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=8 ttl=49 time=56.5 ms
                                                                                                                   icmp_seq=9 ttl=49 time=89.2 ms
                                                                                    (157.240.237.174):
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=10 ttl=49 time=84.1 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=11 ttl=49 time=94.6 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=12 ttl=49 time=115 ms 64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=13 ttl=49 time=98.3 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=14 ttl=49 time=55.6 ms
                                                                                                                   icmp_seq=15 ttl=49 time=104 ms
icmp_seq=16 ttl=49 time=83.2 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): 64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174):
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=17 ttl=49 time=120 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=18 ttl=49 time=94.4 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=18 ttl=49 time=68.3 ms
                                                                                                                   icmp_seq=20 ttl=49 time=103 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174):
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=21 ttl=49 time=81.5 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net
                                                                                    (157.240.237.174):
                                                                                                                   icmp_seq=22 ttl=49 time=79.6 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net
                                                                                    (157.240.237.174): icmp_seq=23 ttl=49 time=81.9 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=24 ttl=49 time=100 ms 64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=25 ttl=49 time=74.3 ms 64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=26 ttl=49 time=92.9 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=27 ttl=49 time=80.6 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=28 ttl=49 time=93.4 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=28 ttl=49 time=68.1 ms
64 bytes from instagram-p42-shv-02-pnq1.fbcdn.net (157.240.237.174): icmp_seq=30 ttl=49 time=78.4 ms
```

34. uname

35. wget

36. man



```
SUDO(8)

BSD System Manager's Manual

SUDO(8)

NAME

sudo, sudoedit — execute a command as another user

SYNOPSIS

sudo — h | -k | -k | -V

sudo — (—ARMARS) [—g group] [—h host] [—p prompt] [—u user]

sudo — l [—ARMARS] [—g group] [—h host] [—p prompt] [—u user] [—u user] [—u user] [—g prompt] [—g command]

sudo — [—ARMARS] [—g group] [—h host] [—p prompt] [—u user] [—g prompt] [—g directory] [—r role] [—t type]

[—T timeout] [—u user] [VAR—value] [—i] — s] [command]

sudoedit [—ARMARS] [—g directory] [—g group] [—h host] [—p prompt] [—g directory] [—r role] [—t type]

[—T timeout] [—u user] file ——

DESCRIPTION

sudo allows a permitted user to execute a command as the superuser or another user, as specified by the security policy. The invoking user's real (not effective) user—ID is used to determine the user name with which to query the security policy.

sudo supports a plupin architecture for security policies, auditing, and input/output logging. Third parties can develop and distribute their own plupins to work semalessly with the sudo front—end. The default security policy is sudders, which is configured via the file /etc/sudders, or via LDAP. See the Plugins section for more information.

The security policy determines what privileges, if any, a user has to run sudo. The policy may require that users authenticate themselves with a password or another authentication mechanism. If authentication is required, sudo will exit if the user's password or so the rered within a configurable time limit. This limit is policy—specific; the default password prompt timeout for the sudoers security policy is 0 minutes.

Security policies may support credential caching to allow the user to run sudo again for a period of time without requiring authentication in 8y default, the sudoers policy caches credentials on a per-terminal basis for 15 minutes. See the timestamp type and timestamp timeout options in sudoers(5) for none information. By running sudo with the —v option, a user can update the cached credentials without run
```

37. History

40 vi abc.c

```
dhananjay@Profile: ~ × + v
  443 clear
 444 cal
  445 sudo apt install ncal
  446 clear
  447 cal
  448 ncal
  449 cal 2023
  450 clear
 451 cal
 452 ncal
  453 clear
  454 cal 2023
 455 clear
456 ls /home/
457 sudo useradd vampire -m
 458 sudo passwd vampire
 459 clear
  460 ls/home/
  461 sudo userdel -r vampire
  462 ls /home/
 463 clear
 464 cd ..
 465 clear
 466 top
 467 clear
 468 top
  469 clear
 470 ping www.instagram.com
  471
      clear
 472 uname
 473 uname -a
 474 uname -s
 475 uname -n
 476 clear
 477 man sudo
 478 clear
 479 history
dhananjay@Profile:~$ history -c
dhananjay@Profile:~$ history
1 history
dhananjay@Profile:~$
```

38 netstat

```
dhananjay@Profile: ~
                                                 - Print network connections, routing tables, interface statistics, masquerade connections, and multicast memberships
netstat (8)
  dhananjay@Profile:~$ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address
Active UNIX domain sockets (w/o servers)
                                                                                                     Foreign Address
                                                                                                                                                             State
Proto RefCnt Flags Type State I-No
dhananjay@Profile:-$ netstat -a
Active Internet connections (servers and established)
                                                                                                                    I-Node Path
Proto Recv-Q Send-Q Local Address
raw 0 0 0.0.0.0:icmp
raw6 0 0 [::]:ipv6-icmp
                                                                                                      Foreign Address 0.0.0.0:*
                                                                                                                                                             State
raw6 0 0 [::]:ipv6-icmp [::]:*
Active UNIX domain sockets (servers and established)
Proto RefCnt Flags Type State I-N
unix 2 [ACC] SEQPACKET LISTENING 109
unix 2 [ACC] SEQPACKET LISTENING 194
dhananjay@Profile:-$ netstat -l
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address Foreign A
raw 0 00.0.0.0:icmp 0.0.0.0:*
raw6 0 0 [::]:ipv6-icmp [::]:*
Active UNIX domain sockets (only servers)
                                                                                                                    I-Node
                                                                                                                                      Path
                                                                                                                                        /run/WSL/1_interop
/run/WSL/9_interop
                                                                                                                    19482
                                                                                                     Foreign Address
                                                                                                                                                             State
                                                                                                      0.0.0.0:*
[::]:*
rawo 6 [::]:1pvo-1cmp [:
Active UNIX domain sockets (only servers)
Proto RefCnt Flags Type State
unix 2 [ ACC ] SEQPACKET LISTENING
unix 2 [ ACC ] SEQPACKET LISTENING
dhananjay@Profile: $
                                                                                                                    I-Node
                                                                                                                                      Path
                                                                                                                                        /run/WSL/1_interop
/run/WSL/9_interop
                                                                                                                    1096
19482
```

39 whoami

40 exit