1. Question 1

mayur5643@DESKTOP-RF6JN77:~$ mkdir test\_dir //this is create new directory

mayur5643@DESKTOP-RF6JN77:~$ cd test\_dir/ //we get into directory

mayur5643@DESKTOP-RF6JN77:~/test\_dir$ touch example.txt //creates a new file

mayur5643@DESKTOP-RF6JN77:~/test\_dir$ mv example.txt renamed\_example.txt //renamed

mayur5643@DESKTOP-RF6JN77:~/test\_dir$ ls

renamed\_example.txt

mayur5643@DESKTOP-RF6JN77:~/test\_dir$

2. Viewing File Contents

mayur5643@DESKTOP-RF6JN77:~$ cat /etc/passwd //showing contents from the folder

root:x:0:0:root:/root:/bin/bash

daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin

bin:x:2:2:bin:/bin:/usr/sbin/nologin

sys:x:3:3:sys:/dev:/usr/sbin/nologin

sync:x:4:65534:sync:/bin:/bin/sync

games:x:5:60:games:/usr/games:/usr/sbin/nologin

man:x:6:12:man:/var/cache/man:/usr/sbin/nologin

lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin

mail:x:8:8:mail:/var/mail:/usr/sbin/nologin

news:x:9:9:news:/var/spool/news:/usr/sbin/nologin

uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin

proxy:x:13:13:proxy:/bin:/usr/sbin/nologin

www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin

backup:x:34:34:backup:/var/backups:/usr/sbin/nologin

list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin

irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin

\_apt:x:42:65534::/nonexistent:/usr/sbin/nologin

nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin

systemd-network:x:998:998:systemd Network Management:/:/usr/sbin/nologin

systemd-timesync:x:996:996:systemd Time Synchronization:/:/usr/sbin/nologin

dhcpcd:x:100:65534:DHCP Client Daemon,,,:/usr/lib/dhcpcd:/bin/false

messagebus:x:101:101::/nonexistent:/usr/sbin/nologin

syslog:x:102:102::/nonexistent:/usr/sbin/nologin

systemd-resolve:x:991:991:systemd Resolver:/:/usr/sbin/nologin

uuidd:x:103:103::/run/uuidd:/usr/sbin/nologin

landscape:x:104:105::/var/lib/landscape:/usr/sbin/nologin

polkitd:x:990:990:User for polkitd:/:/usr/sbin/nologin

mayur5643:x:1000:1000:,,,:/home/mayur5643:/bin/bash

mayur5643@DESKTOP-RF6JN77:~$ head -5 /etc/passwd //display first 5 line

root:x:0:0:root:/root:/bin/bash

daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin

bin:x:2:2:bin:/bin:/usr/sbin/nologin

sys:x:3:3:sys:/dev:/usr/sbin/nologin

sync:x:4:65534:sync:/bin:/bin/sync

mayur5643@DESKTOP-RF6JN77:~$ tail -5 /etc/passwd //display last 5 lines

systemd-resolve:x:991:991:systemd Resolver:/:/usr/sbin/nologin

uuidd:x:103:103::/run/uuidd:/usr/sbin/nologin

landscape:x:104:105::/var/lib/landscape:/usr/sbin/nologin

polkitd:x:990:990:User for polkitd:/:/usr/sbin/nologin

mayur5643:x:1000:1000:,,,:/home/mayur5643:/bin/bash

3.Searching for Patterns

mayur5643@DESKTOP-RF6JN77:~$ grep root /etc/passwd //searches ‘root’ using grep

root:x:0:0:root:/root:/bin/bash

4. Zipping and Unzipping

mayur5643@DESKTOP-RF6JN77:~$ zip -r test\_dir.zip test\_dir //zipped new directory

adding: test\_dir/ (stored 0%)

adding: test\_dir/renamed\_example.txt (stored 0%)

mayur5643@DESKTOP-RF6JN77:~$ unzip test\_dir.zip //unzipped directory and renamed it

Archive: test\_dir.zip

replace test\_dir/renamed\_example.txt? [y]es, [n]o, [A]ll, [N]one, [r]ename: r

new name: unzipped\_dir

extracting: unzipped\_dir

5. Downloading Files

mayur5643@DESKTOP-RF6JN77:~$ wget https://example.com/sample.txt

--2025-07-27 09:40:59-- https://example.com/sample.txt

Resolving example.com (example.com)... 2600:1406:3a00:21::173e:2e65, 2600:1406:3a00:21::173e:2e66, 2600:1406:bc00:53::b81e:94c8, ...

Connecting to example.com (example.com)|2600:1406:3a00:21::173e:2e65|:443... connected.

HTTP request sent, awaiting response... 404 Not Found

2025-07-27 09:41:01 ERROR 404: Not Found.

6. Changing Permissions–read permission only

mayur5643@DESKTOP-RF6JN77:~$ touch secure.txt

mayur5643@DESKTOP-RF6JN77:~$ ls

BasicSH Linux\_Basic\_Commands a.txt app.py compressed-folder.tar folder secure.txt test\_dir test\_dir.zip unknown unzipped\_dir

mayur5643@DESKTOP-RF6JN77:~$ chmod 444 secure.txt

mayur5643@DESKTOP-RF6JN77:~$ ls -l secure.txt

-r--r--r-- 1 mayur5643 mayur5643 0 Jul 27 09:56 secure.txt

7. Working with Environment Variables

mayur5643@DESKTOP-RF6JN77:~$ export MY\_VAR="Hello,Linux!" //creates new env var

mayur5643@DESKTOP-RF6JN77:~$ echo $MY\_VAR

Hello,Linux!

mayur5643@DESKTOP-RF6JN77:~$