**1. Creating and Renaming Files/Directories**

Create a directory named test\_dir using mkdir

$ sudo mkdir test\_dir

Explanation: mkdir used to create directory.

Inside test\_dir, create an empty file called example.txt.

$ cd test\_dir

$ sudo touch example.txt

Explanation: touch use to create an empty file and cd used for change directory.

Rename example.txt to renamed\_example.txt using mv

$ mv example.txt renamed\_example.txt

Explanation: mv use to rename/move any file or directories

**2.  Viewing File Contents**

Use cat to display the contents of /etc/passwd.

$ sudo cat /etc/passwd.

Explanation: List whole lines from /etc/password

Display only the first 5 lines of /etc/passwd using head.

$ sudo head –n 5 /etc/passwd

Explanation: List first 5 lines from /etc/password

Display only the last 5 lines of /etc/passwd using tail.

$ sudo tail –n 5 /etc/passwd

Explanation: List last 5 lines from /etc/password

3.Searching for Patterns

Use grep to find all lines containing the word "root" in /etc/passwd.

$ sudo grep root /etc/passwd

Explanation: It’ll grepp root word inside /etc/password and display an output.

4. Zipping and Unzipping

Compress the test\_dir directory into a file named test\_dir.zip using zip.

Explanation: This will unzip the directory and save and extract inside test\_dir location.

$ sudo zip -r test\_dir.zip test\_dir

Unzip test\_dir.zip into a new directory named unzipped\_dir.

$ sudo unzip test\_dir.zip –d unzipped\_dir

Explanation: This creates (if needed) a folder called unzipped\_dir and unzips everything there.

5. Downloading Files

Use wget to download a file from a URL (e.g., <https://example.com/sample.txt>).

$ wget <https://example.com/sample.txt>

Explanation: This will download sample.txt file and save it to the system

6. Changing Permissions

Create a file named secure.txt and change its permissions to read-only for everyone using chmod.

$ sudo touch secure.txt

$ ls -l secure.txt

-rw-r--r-- 1 root root 0 Oct 29 05:54 secure.txt

Explanation: Default permission is read-only for new files by default.

7. Working with Environment Variables

Use export to set a new environment variable called MY\_VAR with the value "Hello, Linux!".

$ sudo export MY\_VAR="Hello, Linux!"

Explanation: Export command makes the variable available to all child process of the shell.

MY\_VAR is the name of environment variable and Hello, Linux! is the value associated with the variable.

Verify by echo command as below

$ sudo echo $MY\_VAR

Hello, Linux!