1. Creating and Renaming Files/Directories

Create a directory named test\_dir using mkdir.

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

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

**$ mkdir test\_dir**

**$ cd test\_dir/**

**$ touch example.txt**

**$ mv example.txt rename.txt**

**$ ls**

**rename.txt**

**Explanation:**

***Mkdir:*** *to create a directory*

***Cd:*** *change the directory*

***Touch:*** *to create empty file*

***Mv:*** *for changing the name.*

2. Viewing File Contents

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

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

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

**$cat /etc/passwd**

**$cat /etc/passwd |head -5**

**$cat /etc/passwd |tail -5**

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

**$ grep 'root' /etc/passwd**

**Explanation:**

* *grep: Command-line utility to search for patterns.*
* *'root': The pattern you are searching for*
* *./etc/passwd: The file to search in.*

4. Zipping and Unzipping

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

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

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

**Explanation:**

* *zip: Command to create a zip archive.*
* *-r: Recursively include files and directories.*
* *test\_dir.zip: Output zip file.*
* *test\_dir: The directory to compress.*

**$ mkdir unzipped\_dir**

**$ unzip test\_dir.zip -d unzipped\_dir**

**Explanation:**

* *mkdir unzipped\_dir: Creates a directory to extract into.*
* *unzip: Command to extract files from a .zip.*
* *-d unzipped\_dir: Specifies the destination directory for extraction.*

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**](https://example.com/sample.txt)

* **Explanation**:

*wget: A command-line tool for downloading files from the internet.*

*https://example.com/sample.txt: The URL of the file to download.*

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

**$ touch secure.txt**

**$ chmod a=r secure.txt**

**Explanation:**

touch: create a file.

chmod: to change the permission of file.

r=read only

a : stand for all (group, other, user)

7. Working with Environment Variables Use export to set a new environment variable

called MY\_VAR with the value "Hello, Linux!".

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

**$ echo $MY\_VAR**

**Submission Guidelines -:** Attach Screenshots or command along with explanation and submit in doc(google doc or microsoft doc) format also attach github repo link