

## 1. Creating and Renaming Files/Directories

- a. Create a directory named test\_dir using mkdir.

-> Command: mkdir test\_dir

-> Make directory command to create a new empty directory.

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

-> Command: touch test\_dir/example.txt or

Navigate to folder test\_dir: cd test\_dir

Create file: touch example.txt

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

-> mv example.txt renamed\_example.txt

-> mv command can be used to move file or rename file

```
C:\Users\HP>cd desktop
C:\Users\HP\Desktop>mkdir test_dir
C:\Users\HP\Desktop>touch test_dir/example.txt
C:\Users\HP\Desktop>cd Desktop
The system cannot find the path specified.
C:\Users\HP\Desktop>cd test_dir
C:\Users\HP\Desktop\test_dir>ls
example.txt
C:\Users\HP\Desktop\test_dir>mv example.txt renamed_example.txt
C:\Users\HP\Desktop\test_dir>ls
renamed_example.txt
C:\Users\HP\Desktop\test_dir>_
```

## 2. Viewing File Contents

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

-> Navigate to root then

-> Command: cat etc/passwd

-> Concatenate and display files command primarily used to view file content.

## 3. Searching for Patterns

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

-> Command: grep "root" /etc/passwd

-> grep: the command used for searching plain-text data sets for lines matching regular expression.

-> "root": The pattern you are searching for.

-> /etc/passwd: the file you are searching within

```
ubuntu@ip-172-31-29-65:/$ grep "root" /etc/passwd
root:x:0:0:root:/root:/bin/bash
ubuntu@ip-172-31-29-65:/$
```

## 4. Zipping and Unzipping

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

-> Command: zip -r test\_dir.zip test\_dir

-> Zip command to zip, was not available so installed it using

sudo apt-get install zip

Github Link: [https://github.com/wallalwar-om/course\\_assignments](https://github.com/wallalwar-om/course_assignments)

-> -r: recursive, so to recursively iterate through the folder so to select each and every file in the folder.

```
ubuntu@ip-172-31-29-65:~$ zip -r test_dir.zip test_dir
  adding: test_dir/ (stored 0%)
  adding: test_dir/example.txt (stored 0%)
ubuntu@ip-172-31-29-65:~$ ls
test_dir  test_dir.zip
ubuntu@ip-172-31-29-65:~$ zcat test_dir.zip
gzip: test_dir.zip has more than one entry--rest ignored
ubuntu@ip-172-31-29-65:~$
```

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

-> Command: unzip test\_dir.zip

```
ubuntu@ip-172-31-29-65:~$ unzip test_dir.zip
Archive:  test_dir.zip
replace test_dir/example.txt? [y]es, [n]o, [A]ll, [N]one, [r]ename: r
new name: unzipped_test_dir
  extracting: unzipped_test_dir
ubuntu@ip-172-31-29-65:~$ ls
test_dir  test_dir.zip  unzipped_test_dir
ubuntu@ip-172-31-29-65:~$
```

## 5. Downloading Files

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

-> Command: wget <https://example.com/sample.txt>

## 6. Changing Permissions

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

-> touch secure.txt

-> chmod 400 secure.txt

Github Link: [https://github.com/wallalwar-om/course\\_assignments](https://github.com/wallalwar-om/course_assignments)

```
ubuntu@ip-172-31-29-65:~$ touch secure.txt
ubuntu@ip-172-31-29-65:~$ chmod 400 secure.txt
ubuntu@ip-172-31-29-65:~$ ls -l
total 8
-r----- 1 ubuntu ubuntu 0 Jan 20 07:09 secure.txt
drwxrwxr-x 2 ubuntu ubuntu 4096 Jan 20 06:57 test_dir
-rw-rw-r-- 1 ubuntu ubuntu 336 Jan 20 06:59 test_dir.zip
-rw-rw-r-- 1 ubuntu ubuntu 0 Jan 20 06:57 unzipped_test_dir
ubuntu@ip-172-31-29-65:~$
```

## 7. Working with Environment Variables

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

-> export MY\_VAR="Hello, Linux!"

```
ubuntu@ip-172-31-29-65:~$ export MY_VAR="Hello, Linux!"
```

```
ubuntu@ip-172-31-29-65:~$ echo $MY_VAR
Hello, Linux!
ubuntu@ip-172-31-29-65:~$
```