

Github Link: https://github.com/wallalwar-om/course_assignments

1. Creating and Renaming Files/Directories

- Create a directory named test_dir using mkdir.

-> Command: mkdir test_dir

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

- 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

- 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>
```

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2. Viewing File Contents

- 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

- 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:root:/root:/bin/bash
ubuntu@ip-172-31-29-65:/$ █
```

4. Zipping and Unzipping

- 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

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-> -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

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