Linux - Assignment 1(Devops)

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Course:Devops

1.Creating and Renaming Files/Directories

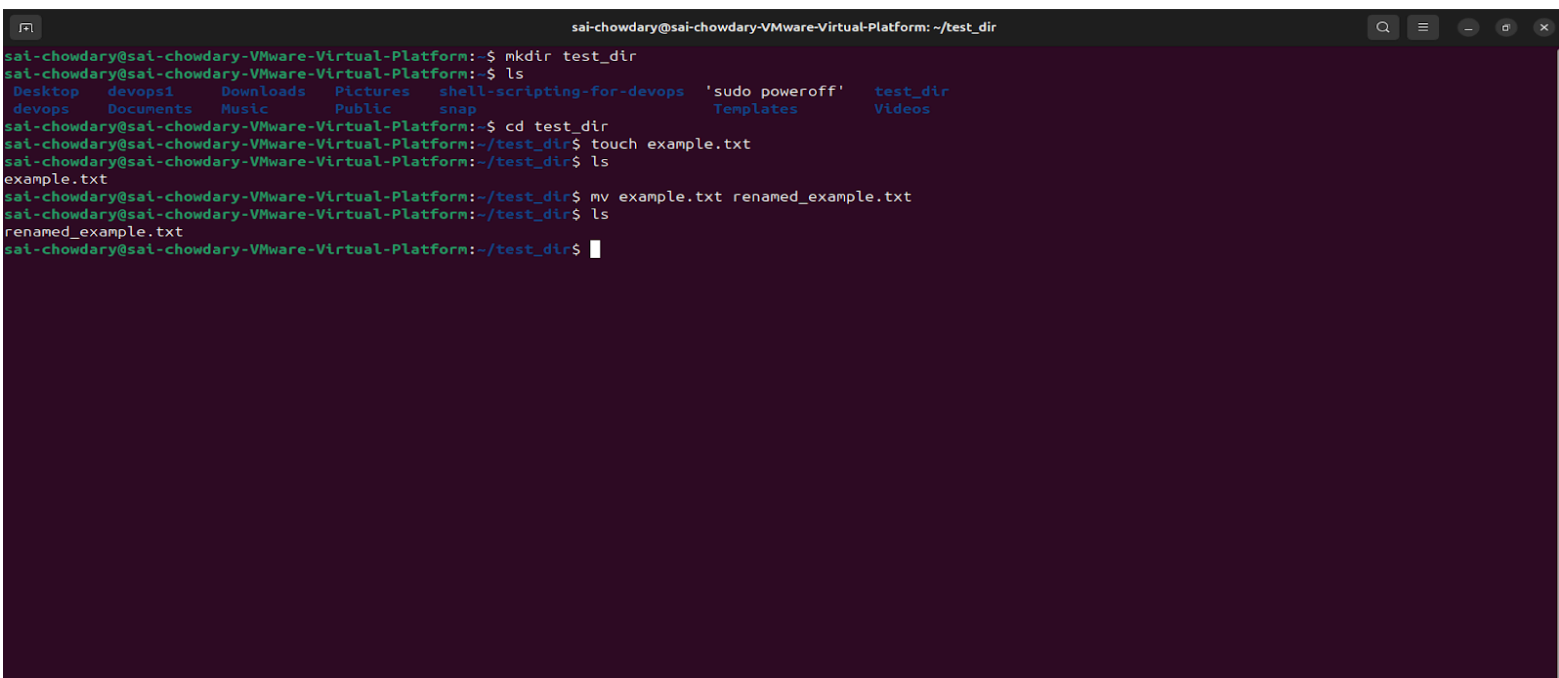#command
mkdir test_dir
cd test_dir
touch example.txt
mv example.txt renamed_example.txt

Output:

Explanation:

In this task, a directory named test_dir was created. Inside it, an empty file was created and then renamed using the mv command.

2. Viewing File Contents
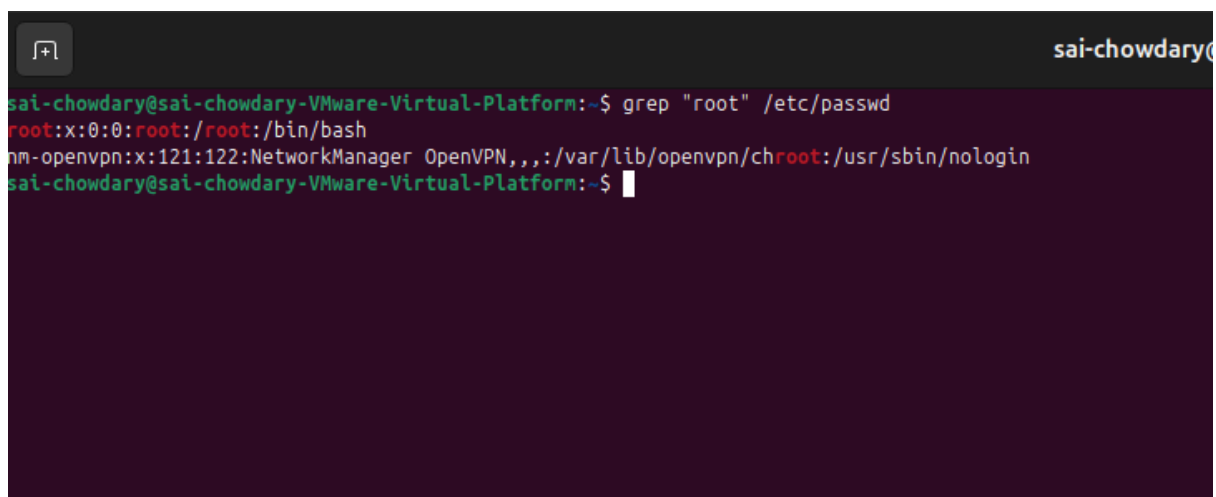
cat /etc/passwd

head –n 5 /etc/passwd

Tail -n 5 /etc/passwd

Explanation:

In this we used cat,head and tail commands to view file contents

3.Searching for Patterns

grep "root" /etc/passwd

Output:

Explanation:
The grep command is used to search for lines containing the word "root" in the file.

4. Zipping and Unzipping

zip test_dir.zip test_dir
unzip test_dir.zip -d unzipped_dir

Output:

```
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ zip test_dir.zip test_dir
  adding: test_dir/ (stored 0%)
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ ls
Desktop      Downloads    shell-scripting-for-devops    test_dir
devops       Music        snap                          test_dir.zip
devops1      Pictures     'sudo poweroff'               Videos
Documents    Public       Templates
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ unzip test_dir.zip unzipped_dir
Archive:  test_dir.zip
caution: filename not matched:  unzipped_dir
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ unzip test_dir.zip -d unzipped_dir
Archive:  test_dir.zip
   creating: unzipped_dir/test_dir/
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ ls
Desktop      Downloads    shell-scripting-for-devops    test_dir
devops       Music        snap                          test_dir.zip
devops1      Pictures     'sudo poweroff'               unzipped_dir
Documents    Public       Templates                     Videos
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$
```

Explanation:
By using zip and unzip commands we are going to compress and decompress files

5. Downloading Files

wget http://speedtest.tele2.net.1MB.zip

Output:

```
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ wget http://speedtest.tele2.net/1MB.zip
--2026-01-15 16:40:45--  http://speedtest.tele2.net/1MB.zip
Resolving speedtest.tele2.net (speedtest.tele2.net)... 90.130.70.73, 2a00:800:1010::1
Connecting to speedtest.tele2.net (speedtest.tele2.net)|90.130.70.73|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1048576 (1.0M) [application/zip]
Saving to: '1MB.zip'

1MB.zip                    100%[===================================================================>]   1.00M  19.7KB/s    in 31s

2026-01-15 16:41:17 (32.6 KB/s) - '1MB.zip' saved [1048576/1048576]

sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ ls
1MB.zip    devops    Documents   Music     Public                       snap           Templates   test_dir.zip   Videos
Desktop    devops1   Downloads   Pictures  shell-scripting-for-devops  'sudo poweroff' test_dir    unzipped_dir
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$
```

Explanation:

By using wget command we can able to download files from the internet

6. Changing Permissions:

touch secure.txt

chmod 444 secure.txt

ls -l secure.txt

Output:

```
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ touch secure.txt
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ ls -l secure.txt
-rw-rw-r-- 1 sai-chowdary sai-chowdary 0 Jan 15 16:49 secure.txt
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ chmod 444 secure.txt
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ ls -l secure.txt
-r--r--r-- 1 sai-chowdary sai-chowdary 0 Jan 15 16:49 secure.txt
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$
```

Explanation:

By using chmod command we can ableto change the permissions of a particular file,directory

7. Working with Environment Variables

export MY_VAR="Hello, Linux!"

echo $MY_VAR

Output:

```
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ export MY_VAR="Hello, Linux!"
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$ echo $MY_VAR
Hello, Linux!
sai-chowdary@sai-chowdary-VMware-Virtual-Platform:~$
```

Explanation:

An Environment variable is created using export and verified using echo command