

CYSE 609 – FUND LINUX SYST FOR CYBER

Module 3 | File System Management

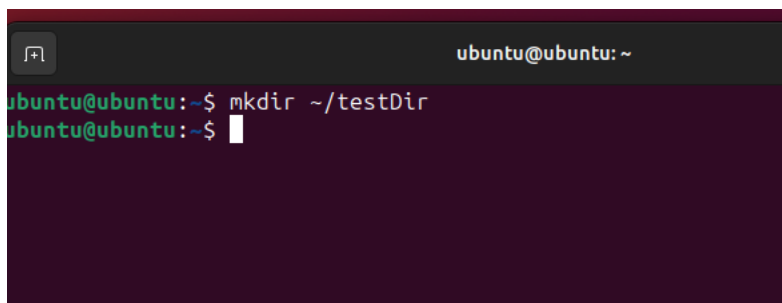
Total: 100 Points

Name: [Click or tap here to enter text.](#)

Directions: Practice the following tasks in Linux VM – Ubuntu using various Linux commands for file management. Insert screenshots where applicable. Upload completed document in Canvas.

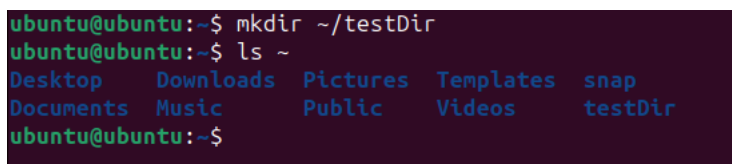
Task 1: Linux File System Management

- Create a directory named "**testDir**" in your home directory. Upload the screenshot for this step after executing the command.

A terminal window with a dark background. The prompt is 'ubuntu@ubuntu: ~'. The user enters 'mkdir ~/testDir' and the prompt returns. The terminal text is:

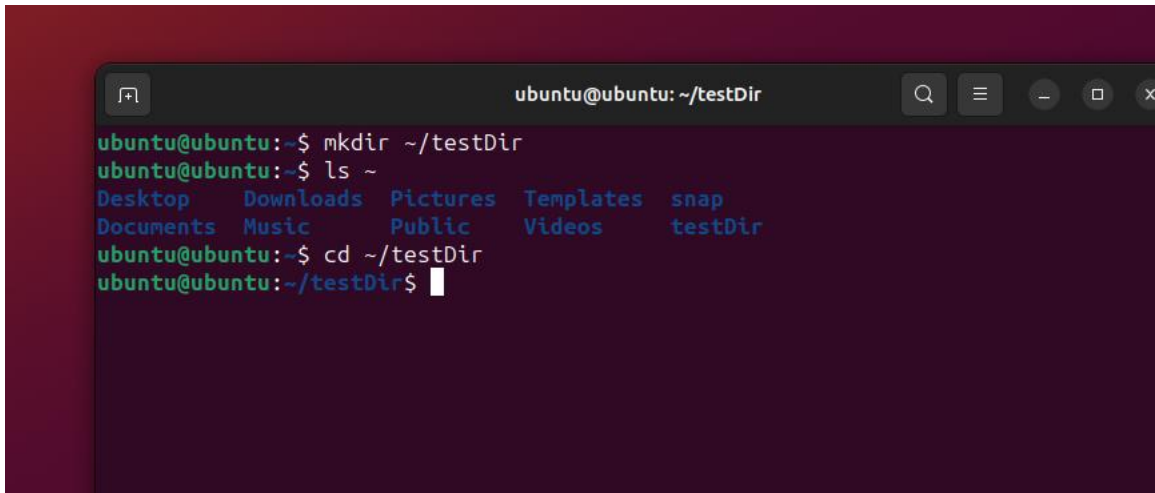
```
ubuntu@ubuntu:~$ mkdir ~/testDir
ubuntu@ubuntu:~$
```

- List the contents of your home directory to confirm the creation of the "**testDir**" directory. Upload the screenshot for this step after executing the command.

A terminal window with a dark background. The prompt is 'ubuntu@ubuntu:~'. The user enters 'mkdir ~/testDir' and 'ls ~'. The output of 'ls ~' is displayed. The terminal text is:

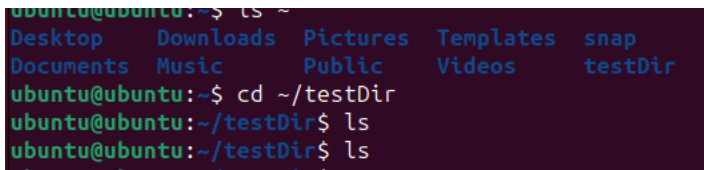
```
ubuntu@ubuntu:~$ mkdir ~/testDir
ubuntu@ubuntu:~$ ls ~
Desktop  Downloads  Pictures  Templates  snap
Documents Music      Public    Videos    testDir
ubuntu@ubuntu:~$
```

- Change your working directory to "**testDir**" using the cd command. Upload the screenshot for this step after executing the command.



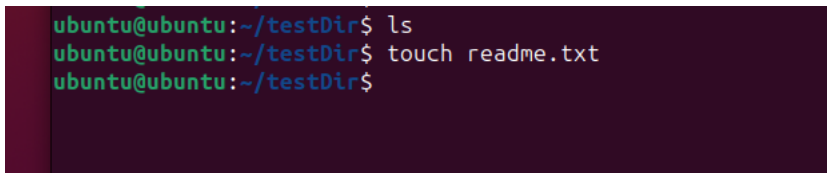
```
ubuntu@ubuntu: ~/testDir
ubuntu@ubuntu:~$ mkdir ~/testDir
ubuntu@ubuntu:~$ ls ~
Desktop  Downloads  Pictures  Templates  snap
Documents Music      Public    Videos     testDir
ubuntu@ubuntu:~$ cd ~/testDir
ubuntu@ubuntu:~/testDir$
```

- List the contents of "**testDir**". Upload the screenshot for this step after executing the command.
Upload the screenshot for this step after executing the command.



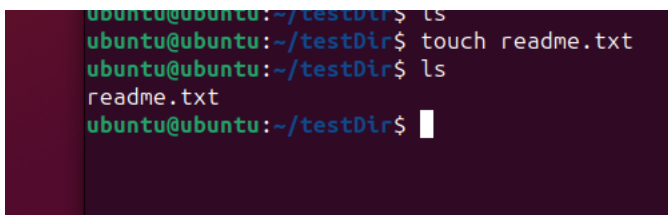
```
ubuntu@ubuntu:~$ ls ~
Desktop  Downloads  Pictures  Templates  snap
Documents Music      Public    Videos     testDir
ubuntu@ubuntu:~$ cd ~/testDir
ubuntu@ubuntu:~/testDir$ ls
ubuntu@ubuntu:~/testDir$
```

- Create an empty text file named "**readme.txt**" within the "**tesDir**" directory using the **touch** command. Upload the screenshot for this step after executing the command.



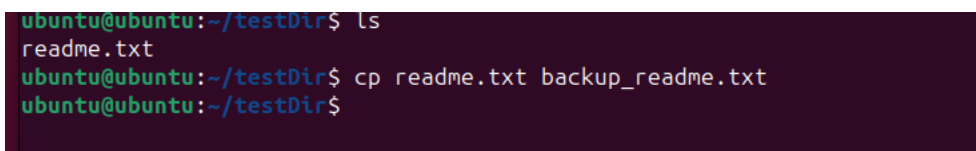
```
ubuntu@ubuntu:~/testDir$ ls
ubuntu@ubuntu:~/testDir$ touch readme.txt
ubuntu@ubuntu:~/testDir$
```

- Verify the creation of the "**readme.txt**" file. Upload the screenshot for this step after executing the command.



```
ubuntu@ubuntu:~/testDir$ ls
ubuntu@ubuntu:~/testDir$ touch readme.txt
ubuntu@ubuntu:~/testDir$ ls
readme.txt
ubuntu@ubuntu:~/testDir$
```

- Create a copy of the "**readme.txt**" file and name it "**backup_readme.txt**" using the **cp** command. Upload the screenshot for this step after executing the command.



```
ubuntu@ubuntu:~/testDir$ ls
readme.txt
ubuntu@ubuntu:~/testDir$ cp readme.txt backup_readme.txt
ubuntu@ubuntu:~/testDir$
```

- Confirm the existence of the copied file. Upload the screenshot for this step after executing the command.

```
ubuntu@ubuntu:~/testDir$ ls -l
total 0
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:37 backup_readme.txt
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:36 readme.txt
ubuntu@ubuntu:~/testDir$
```

- Rename the "**backup_readme.txt**" file to "**backup_readme_v2.txt**" using the **mv** command. Upload the screenshot for this step after executing the command.

```
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:37 backup_readme.txt
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:36 readme.txt
ubuntu@ubuntu:~/testDir$ mv backup_readme.txt backup_readme_v2.txt
ubuntu@ubuntu:~/testDir$
```

- Check that the file has been successfully renamed. Upload the screenshot for this step after executing the command.

```
ubuntu@ubuntu:~/testDir$ mv backup_readme.txt backup_readme_v2.txt
ubuntu@ubuntu:~/testDir$ ls -l
total 0
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:37 backup_readme_v2.txt
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:36 readme.txt
ubuntu@ubuntu:~/testDir$
```

- Remove the "**backup_readme_v2.txt**" file using the **rm** command. Upload the screenshot for this step after executing the command.

```
total 0
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:37 backup_readme_v2.txt
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:36 readme.txt
ubuntu@ubuntu:~/testDir$ rm backup_readme_v2.txt
ubuntu@ubuntu:~/testDir$
```

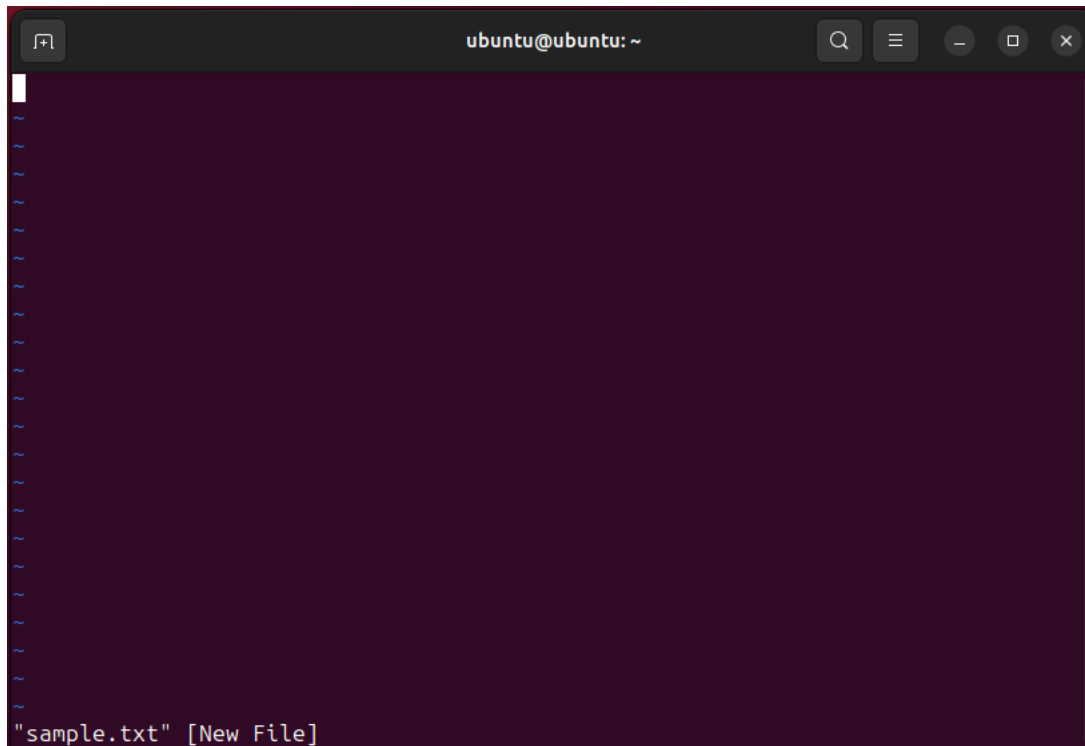
- Remove the "**testDir**" directory and its contents using the appropriate **rm** or **rmdir** command. Upload the screenshot for this step after executing the command.

```
ubuntu@ubuntu:~/testDir$ rm backup_readme_v2.txt
ubuntu@ubuntu:~/testDir$ cd
ubuntu@ubuntu:~$ rm -r testDir
ubuntu@ubuntu:~$
```

- Verify that both the file and directory have been deleted. Upload the screenshot for this step after executing the command.

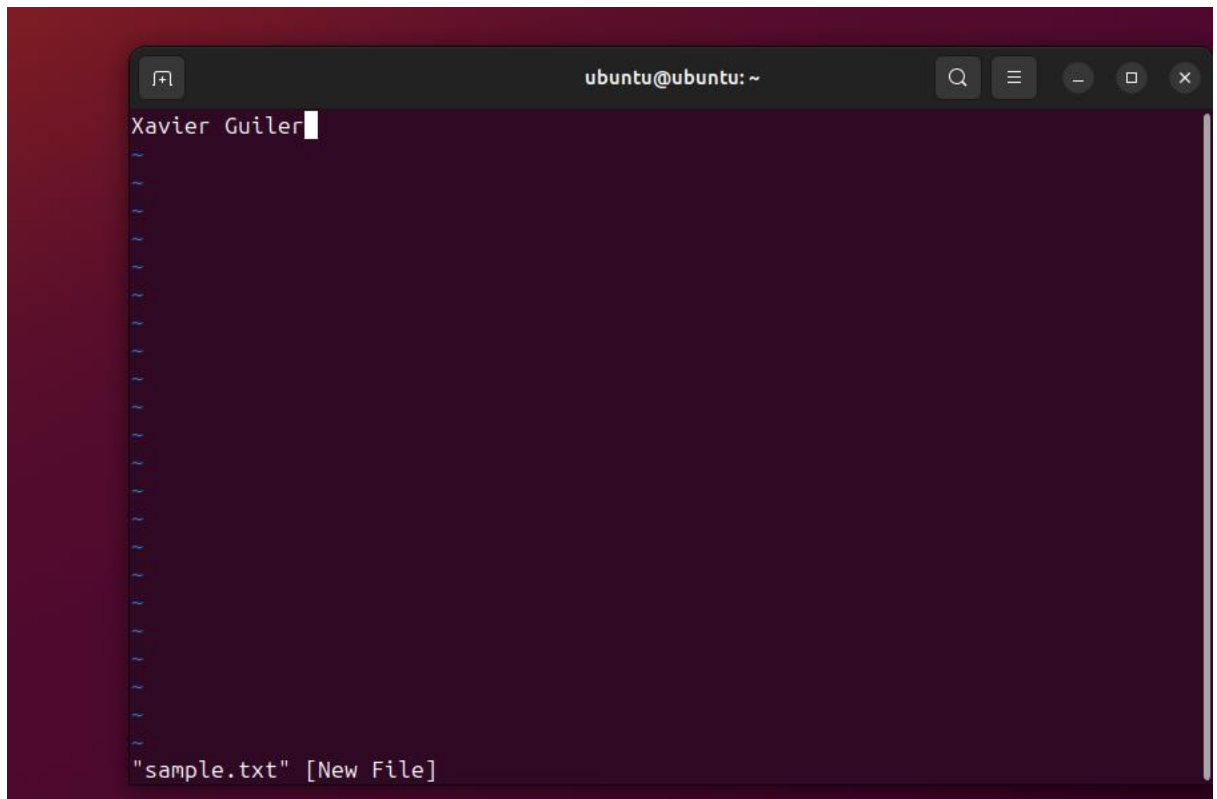
```
ubuntu@ubuntu:~$ ls ~
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos  snap
ubuntu@ubuntu:~$
```

- Create a new text file named “**sample.txt**” using the **vi/vim** editor. Upload the screenshot for this step after executing the command.



The screenshot shows a terminal window with the vi editor interface. The title bar at the top reads "ubuntu@ubuntu: ~". The editor area is mostly empty, with a cursor at the top left. At the bottom of the editor, the text "**sample.txt**" [New File] is displayed, indicating that a new file has been created.

- Add “your name” as the content to the file [Hit the command letter “**i**” to be in insert mode to insert/type any text. Upload the screenshot for this step after executing the command.



- Use Linux command for vi editor to save your changes and exit the vi editor. Upload the screenshot for this step after executing the command.

```
ubuntu@ubuntu: ~  
Documents Music Public Videos testDir  
ubuntu@ubuntu:~$ cd ~/testDir  
ubuntu@ubuntu:~/testDir$ ls  
ubuntu@ubuntu:~/testDir$ ls  
ubuntu@ubuntu:~/testDir$ touch readme.txt  
ubuntu@ubuntu:~/testDir$ ls  
readme.txt  
ubuntu@ubuntu:~/testDir$ cp readme.txt backup_readme.txt  
ubuntu@ubuntu:~/testDir$ ls -l  
total 0  
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:37 backup_readme.txt  
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:36 readme.txt  
ubuntu@ubuntu:~/testDir$ mv backup_readme.txt backup_readme_v2.txt  
ubuntu@ubuntu:~/testDir$ ls -l  
total 0  
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:37 backup_readme_v2.txt  
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 01:36 readme.txt  
ubuntu@ubuntu:~/testDir$ rm backup_readme_v2.txt  
ubuntu@ubuntu:~/testDir$ cd  
ubuntu@ubuntu:~$ rm -r testDir  
ubuntu@ubuntu:~$ ls ~  
Desktop Documents Downloads Music Pictures Public Templates Videos snap  
ubuntu@ubuntu:~$ vi sample.txt  
ubuntu@ubuntu:~$
```

- Use the **grep** command to search for your name within "**sample.txt**." Upload the screenshot for this step after executing the command.

```
ubuntu@ubuntu:~$ vi sample.txt  
ubuntu@ubuntu:~$ grep "Xavier Guiler" sample.txt  
Xavier Guiler  
ubuntu@ubuntu:~$
```

- Open the file "**sample.txt**" using vi editor and hit the command "**i**" to be in insert mode to type some text "**Cybersecurity**". Upload the screenshot for this step after executing the command.

```
Cybersecurity
```

- Save the file using "**:wq**". Upload the screenshot for this step after executing the command.
Upload the screenshot for this step after executing the command.

```
Xavier Guiler  
ubuntu@ubuntu:~$ vi sample.txt  
ubuntu@ubuntu:~$
```

- Verify the creation of the "**sample.txt**" file. Upload the screenshot for this step after executing the command.

```
ubuntu@ubuntu:~$ vi sample.txt
ubuntu@ubuntu:~$ ls -l sample.txt
-rw-rw-r-- 1 ubuntu ubuntu 41 Feb  9 02:37 sample.txt
ubuntu@ubuntu:~$
```

Grading Criteria

Task 1: Linux File System Management [20 x 5 Points = 100 Points]