



COMSATS UNIVERSITY ISLAMABAD
ATTOCK CAMPUS

Lab Report 2 :

Operating System

Submitted to : Sir Fayyaz Ali

Group Members	Muaaz Shoaib FA20-BCS-074 Shahzeb Shaheen FA20-BCS-040
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Rubrics Assessment Sheet for Operating System

Lab #:	Lab no 2
Lab Title:	Introduction to Linux File System and Basic Concepts of files and directories.
Submitted by:	
Names Muaaz Shoaib Shahzeb Shaheen	Registration FA20-BCS-074 FA20-BCS-040

Rubrics name & number		Marks	
		In-Lab	Post lab
Engineering Knowledge	<i>R2: Use of Engineering Knowledge and follow Experiment Procedures: Ability to follow experimental procedure, control variables, and record Procedural steps on lab report.</i>		
Problem Analysis	<i>R6: Experimental Data Analysis : Ability to interpret findings, compare them to values in the literature, identify weaknesses and limitations</i>		
Design	<i>RS: Best Coding Standards: Ability to follow the coding standards and programming practices</i>		
Modern Tools Usage	<i>R9: Understood Tools: Ability to describe and explain the principles behind applicability of engineering tools.</i>		
Individual and Teamwork	<i>R9: Management of Team Work: Ability to appreciate, understand and work multidisciplinary team members</i>		

Rubrics #	R2	R6	RS	R9	R13
In -Lab					
Post- Lab					

Description :

Files and Directories :

A directory is collection of files and other directories.

Absolute Path :

It's the start at the root of the directory.

Current Directory :

The directory in which you are currently working is called the Current Directory

Q1 :

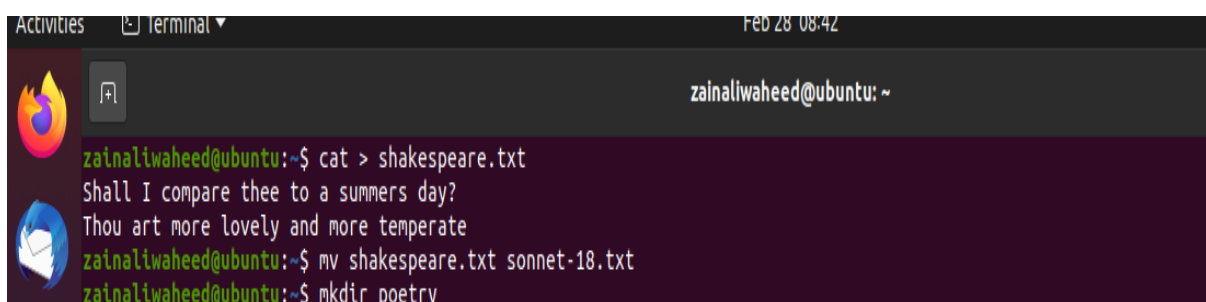
- Use the `pwd` command to find out what directory you are in.
- If you are not in your home directory (`/home/USERNAME`) then use `cd` without any arguments to go there, and do `pwd` again.
- Use `cd` to visit the root directory, and list the files there. You should see `home` among the list.
- Change into the directory called `home` and again list the files present. There should be one directory for each user, including the user you are logged in as (you can use `whoami` to check that).
- Change into your home directory to confirm that you have gotten back to where you started.



```
zainaliwaheed@ubuntu: ~  
zainaliwaheed@ubuntu:~$ pwd  
/home/zainaliwaheed  
zainaliwaheed@ubuntu:~$ cd ..  
zainaliwaheed@ubuntu:/home$ pwd  
/home  
zainaliwaheed@ubuntu:/home$ cd ..  
zainaliwaheed@ubuntu:/$ ls  
bin    dev    lib    libx32  mnt    root   snap   sys    var  
boot   etc    lib32  lost+found  opt    run    srv    tmp  
cdrom  home  lib64  media    proc   sbin   swapfile  usr
```

Q2 :

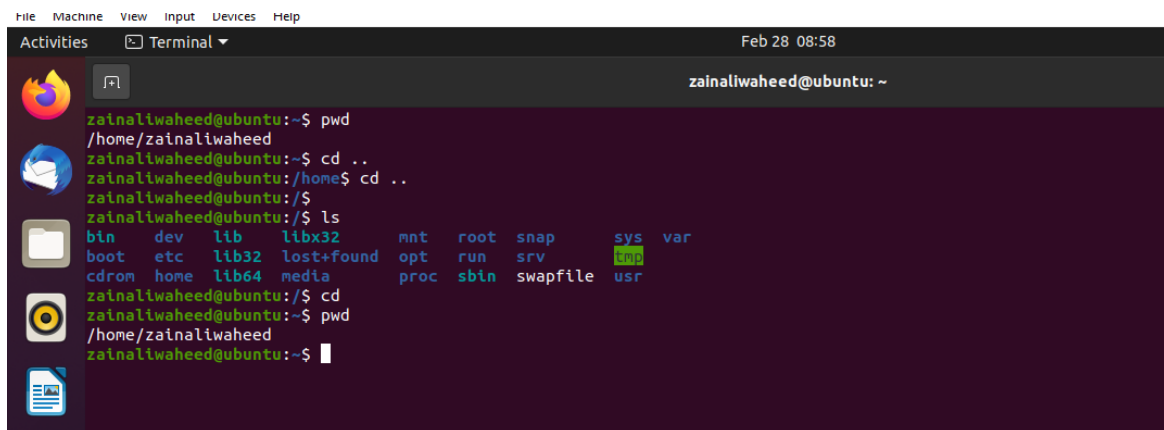
- Create a text file in your home directory called `shakespeare`, containing the following text: Shall I compare thee to a summer's day? Thou art more lovely and more temperate
- Rename it to `sonnet-18.txt`.
- Make a new directory in your home directory, called `poetry`.
- Move the poem file into the new directory.
- Try to find a graphical directory-browsing program, and find your home directory with it. You should also be able to use it to explore some of the system directories.
- Find a text editor program and use it to display and edit the sonnet



```
Activities Terminal Feb 28 08:42  
zainaliwaheed@ubuntu: ~  
zainaliwaheed@ubuntu:~$ cat > shakespeare.txt  
Shall I compare thee to a summers day?  
Thou art more lovely and more temperate  
zainaliwaheed@ubuntu:~$ mv shakespeare.txt sonnet-18.txt  
zainaliwaheed@ubuntu:~$ mkdir poetry
```

Q3 :

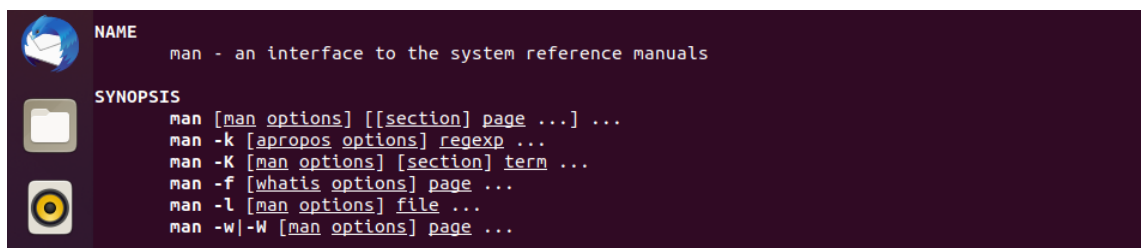
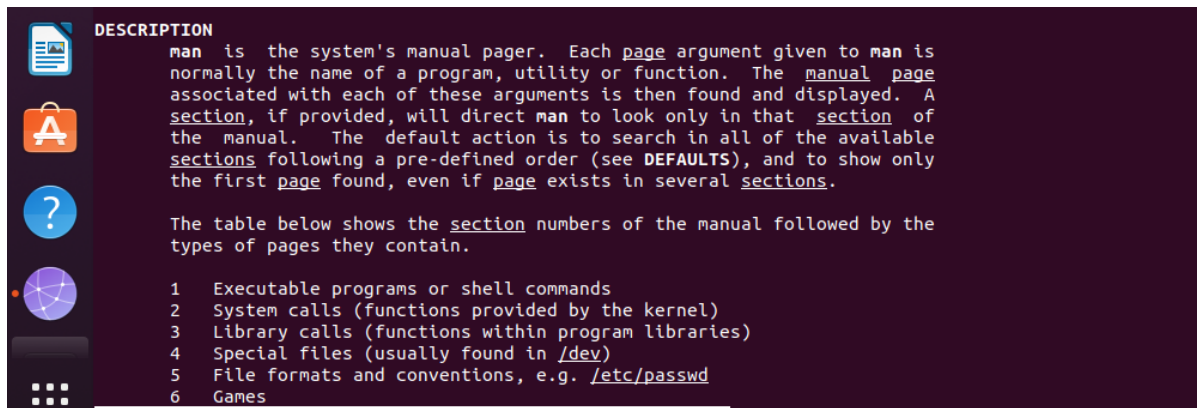
- From your home directory, list the files in the directory `/usr/share`.
- Change to that directory, and use `pwd` to check that you are in the right place. List the files in the current directory again, and then list the files in the directory called `doc`.
- Next list the files in the parent directory, and the directory above that.
- Try the following command, and make sure you understand the result: `$ echo ~`
- Use `cat` to display the contents of a text file which resides in your home directory (create one if you haven't already), using the `~/` syntax to refer to it. It shouldn't matter what your current directory is when you run the command.



```
File Machine View Input Devices Help
Activities Terminal Feb 28 08:58
zainaliwaheed@ubuntu: ~
zainaliwaheed@ubuntu:~$ pwd
/home/zainaliwaheed
zainaliwaheed@ubuntu:~$ cd ..
zainaliwaheed@ubuntu:/home$ cd ..
zainaliwaheed@ubuntu:/$
zainaliwaheed@ubuntu:/$ ls
bin    dev    lib    libx32  mnt    root  snap  sys  var
boot  etc    lib32  lost+found  opt    run   srv   usr
cdrom  home  lib64  media    proc   sbin  swapfile
zainaliwaheed@ubuntu:/$ cd
zainaliwaheed@ubuntu:~$ pwd
/home/zainaliwaheed
zainaliwaheed@ubuntu:~$
```

Q4 :

- Use the `hostname` command, with no options, to print the hostname of the machine you are using.
- Use `man` to display some documentation on the `hostname` command. Find out how to make it print the IP address of the machine instead of the hostname. You will need to scroll down the manpage to the 'Options' section.
- Use the `locate` command to find files whose name contains the text 'hostname'. Which of the filenames printed contain the actual hostname program itself? Try running it by entering the program's absolute path to check that you really have found it



Q5 :

- The `*` wildcard on its own is expanded by the shell to a list of all the files in the current directory. Use the `echo` command to see the result (but make sure you are in a directory with a few files or directories first)
- Use quoting to make `echo` print out an actual `*` symbol.
- Augment the poetry directory you created earlier with another file, `sonnet29.txt`: When in disgrace with Fortune and men's eyes, I all alone beweeep my outcast state,
- Use the `cat` command to display both of the poems, using a wildcard.
- Finally, use the `rm` command to delete the poetry directory and the poems in it.

