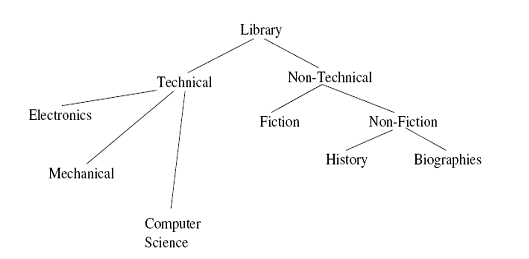
**Cycle –I (Basic linux commands)**

1)A library needs to organize its collection of its electronic books on hard drive. The books are to be categorized as shown below



Create a Directory Structure to help the library organize its books better.

mcalab01028@mcalab01028PC:~$ mkdir library

mcalab01028@mcalab01028PC:~$ cd library

mcalab01028@mcalab01028PC:~/library$ mkdir technical

mcalab01028@mcalab01028PC:~/library$ cd technical

mcalab01028@mcalab01028PC:~/library/technical$ mkdir electronics

mcalab01028@mcalab01028PC:~/library/technical$ mkdir mechanical

mcalab01028@mcalab01028PC:~/library/technical$ mkdir computerscience

mcalab01028@mcalab01028PC:~/library/technical$ cd ~/library/

mcalab01028@mcalab01028PC:~/library$ mkdir non-technical

mcalab01028@mcalab01028PC:~/library$ cd non-technical

mcalab01028@mcalab01028PC:~/library/non-technical$ mkdir fiction

mcalab01028@mcalab01028PC:~/library/non-technical$ mkdir non-fiction

mcalab01028@mcalab01028PC:~/library/non-technical$ cd non-fiction

mcalab01028@mcalab01028PC:~/library/non-technical/non-fiction$ mkdir history

mcalab01028@mcalab01028PC:~/library/non-technical/non-fiction$ mkdir biographies

**Do the following operations in the above directory structure**.

1. You want to read *BenjaminFranklin.txt* one page at a time. How?

mcalab01028@mcalab01028PC:~/Anjana/library/non-technical/non-fiction/history$ less BenjaminFranklin.txt

more is a filter for paging through text one screenful at a time. This version is especially primitive. Users should realize that 81:Franklin became a successful newspaper editor and printer in Philadelphia, the leading city in the colonies, publishing the Pennsylvania Gazette at the age of He became wealthy publishing this and Poor Richard's Almanack, which he authored under the pseudonym "Richard Saunders". After 1767, he was associated with the Pennsylvania Chronicle, a BenjaminFranklin.txt (END)

1. Display all the lines which contain the word *“time”.*

*mcalab01028@mcalab01028PC:~/Anjana/library/non-technical/non-fiction/history$ grep -n time BenjaminFranklin.txt*

*1:more is a filter for paging through text one screenful at a time. This version is especially primitive. Users should realize that*

3. Get a count of the number of such lines.

mcalab01028@mcalab01028PC:~/ *Anjana* /library/non-technical/non-fiction/history$ grep -c time BenjaminFranklin.txt

1

4.Save all the lines having the word *“time”* in another file called “TimeFile.txt”

mcalab01028@mcalab01028PC:~/ *Anjana* /library/non-technical/non-fiction/history$ grep -n time BenjaminFranklin.txt >timefile

more is a filter for paging through text one screenful at a time. This version is especially primitive. Users should realize that 81:Franklin became a successful newspaper editor and printer in Philadelphia, the leading city in the colonies, publishing the Pennsylvania Gazette at the age of He became wealthy publishing this and Poor Richard's Almanack, which he authored under the pseudonym "Richard Saunders". After 1767, he was associated with the Pennsylvania Chronicle, a BenjaminFranklin.txt (END)

5.create a file named labrules and copy the same to directories electronics and mechanical.

mcalab01028@mcalab01028PC:~/ *Anjana* $ cp labrules.txt library/technical/electronics

mcalab01028@mcalab01028PC:~/Anjana$ cp labrules.txt library/technical/mechanical

6.copy all c files into another directory called lab in computer science mcalab01028@mcalab01028PC:~/Anjana/library$ cp \*.c /home/mcalab01028/Anjana/library/technical/computer/lab

mcalab01028@mcalab01028PC:~/Anjana/library/technical/computer$ ls lab

a.c b.c

**2. Do the following operations in Linux**

1. Display the calendar for

(i) Jan 2000

mcalab01028@mcalab01028PC:~$ cal jan 2000

January 2000

Su Mo Tu We Th Fr Sa

1

2 3 4 5 6 7 8

9 10 11 12 13 14 15

16 17 18 19 20 21 22

23 24 25 26 27 28 29

30 31

(ii) Feb 1999

mcalab01028@mcalab01028PC:~$ cal feb 1999

February 1999

Su Mo Tu We Th Fr Sa

1 2 3 4 5 6

7 8 9 10 11 12 13

14 15 16 17 18 19 20

21 22 23 24 25 26 27

28

(iii) For the current month

mcalab01028@mcalab01028PC:~$ cal

February 2019

Su Mo Tu We Th Fr Sa

1 2

3 4 5 6 7 8 9

10 11 12 13 14 15 16

17 18 19 20 21 22 23

24 25 26 27 28

2. Display the time in 12-Hour and 24 Hour Notations.

mcalab01028@mcalab01028PC:~$ date +%r

04:09:51 PM IST

mcalab01028@mcalab01028PC:~$ date +%R

16:09

3. Display the Current Date and Current Time.

mcalab01028@mcalab01028PC:~/Anjana$ date

Mon Feb 11 16:31:31 IST 2019

4. Display the time as HH:MM:SS(AM/PM)

mcalab01028@mcalab01028PC:~/Anjana$ date +%r

04:52:53 PM IST

5.Display the current day in abbreviated form

mcalab01028@mcalab01028PC:~/Anjana$ date +%a

Mon

**Directory Handling Commands**

1. Display all files including hidden files

mcalab01028@mcalab01028PC:~/Anjana$ ls -a

. a.c BenjaminFranklin labrules non-technical timefile

.. b.c electronics mechanical technical timefilee

1. Create a directory SAMPLE under your home directory.

mcalab01028@mcalab01028PC:~/Anjana$ mkdir sample

1. Create a sub-directory by name TRIAL under SAMPLE.

calab01028@mcalab01028PC:~/Anjana$ cd sample

mcalab01028@mcalab01028PC:~/Anjana/sample$ mkdir trial

1. Change to SAMPLE.

mcalab01028@mcalab01028PC:~/Anjana/sample$ cd/home/mcalab01028/Anjana/

mcalab01028@mcalab01028PC:~/ Anjana $ cd sample

mcalab01028@mcalab01028PC:~/ Anjana /sample$

1. Change to your home directory.

mcalab01028@mcalab01028PC:~$

1. Remove directory TRIAL.

mcalab01028@mcalab01028PC:~/ Anjana $ cd sample

mcalab01028@mcalab01028PC:~/ Anjana /sample$ rmdir trial

7. Create files myfile and yourfile under Present Working Directory.

mcalab01028@mcalab01028PC:~/ Anjana /sample$ cat >myfile

mcalab01028@mcalab01028PC:~/ Anjana /sample$ cat>yourfile

8. Display the files myfile and yourfile.

mcalab01028@mcalab01028PC:~/ Anjana /sample$ cat myfile yourfile

myfile yourfile

9. Append more lines in the myfile and yourfile files.

mcalab01028@mcalab01028PC:~/ Anjana /sample$ cat >>myfile

picture

music

docu

mcalab01028@mcalab01028PC:~/ Anjana /sample$ cat myfile yourfile

docu

videos

whallpaper

10. Display the number of words , lines and characters in myfile

mcalab01028@mcalab01028PC:~/ Anjana /sample$ wc -l myfile

3 myfile

mcalab01028@mcalab01028PC:~/ Anjana /sample$ wc -m myfile

19 myfile

mcalab01028@mcalab01028PC:~/ Anjana /sample$ wc -w myfile

1. Myfile

11. Rename TRIAL as DATA.

mcalab01028@mcalab01028PC:~/ Anjana $ mv sample data

Construct a pipe:

1. Output of ‘ls ‘should be displayed on the screen and count the number of lines containing the word “mca” and store the count in file f1.

mcalab01028@mcalab01028PC:~$ ls -l |grep -c mca >f1

mcalab01028@mcalab01028PC:~$ cat f1

mca

2. Contents of file f1 and f2 should be displayed on the screen and append this output on to the file f3.

mcalab01028@mcalab01028PC:~$ cat f1 f2|cat >>f43

1

mca