Lab Assignment-01

ROLL: 2005535 | NAME: SAHIL SINGH | DATE: 04/01/22

Linux/Unix Commands

1. $ cal : To display calendar.

2. $ pwd : To print the path of current working directory.

3. $ cd : To navigate through the files and directories.

4. $ time : To display current time.

5. $ date : To display current date.

6. $ man : To open Manual for help.

7. $ whoami : To see current terminal user on which we are working.

9. $ cat 'filename' : To display content of the file.

10. $ cat > 'filename' : To create a new file.

11. $ ls : To list out all files or folders available in a directory. By default, It shows the files in the current working directory.

12. $ cat 'file1' >> 'file2' : To append file1 to file2.

13. $ history : To see the history of all commands that have been ran on the current working directory.

14. $ ps : To see all the processes that are currently running.

15. $ head : shows the first 10 lines of a file.

16. $ tail : shows the last 10 lines of a file.

17. $ mv 'file1' to 'file2' : renames the file1 to file2

18. $ wc 'file1' ~~file2~~ : counts the number of words, lines, bytes and shows filename.

19. $ mkdir 'directory name' : to create a directory.

20. $ tree : to create a tree of all files and folders contained in a directory.

21. $ echo 'string' : to print the string on the terminal

22. $ cd 'file1' : to open a directory

23. $ cp 'file1' to 'file2' : to copy contents of file1 to file2.

24. $ vi 'filename' : to create a file.

25. $ exit : to ~~create~~ exit the terminal

Lab Assignment-02

ROLL: 2005535 | NAME: SAHIL SINGH | DATE: 11/01/22

QUES 1: A) Create the file names under the directories as mentioned in the figure and write some relevant data into the files.
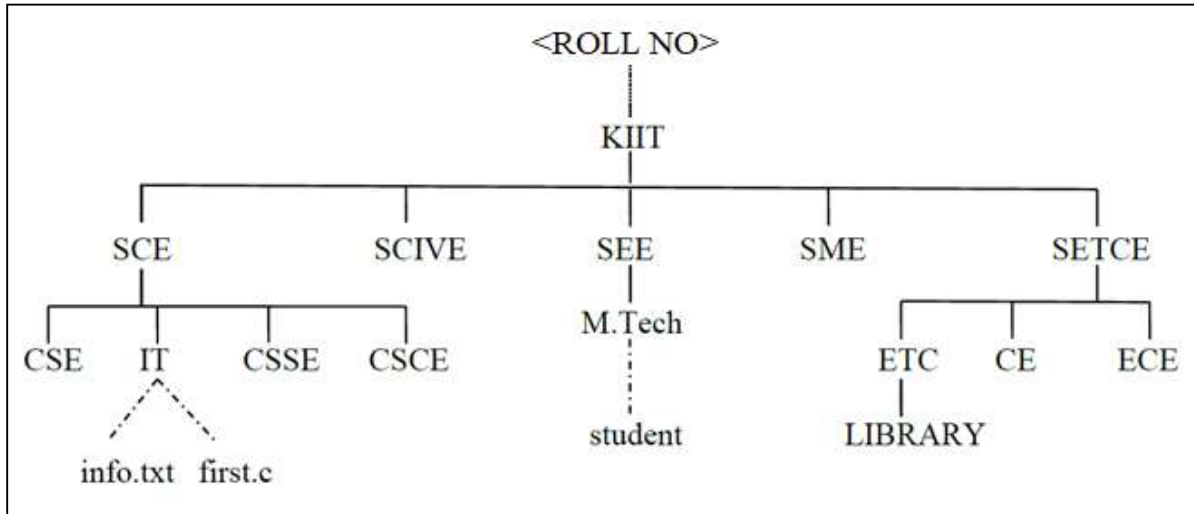
N.B. The names under solid lines are assumed as directories and dotted lines as file names.

SOLUTION:

$ mkdir 2005535

$ cd 2005535

/2005535$ mkdir KIIT

/2005535$ cd KIIT

/2005535/KIIT$ mkdir SCE SCIVE SEE SME SETCE

/2005535/KIIT$ cd SCE

/2005535/KIIT/SCE$ mkdir CSE IT CSSE CSCE

/2005535/KIIT/SCE$ cd IT

/2005535/KIIT/SCE/IT$ cat>info.txt

This is a test file for Assignment 1

File name is info.txt

^C

/2005535/KIIT/SCE/IT$ cat>first.c

#include <stdio.h>

void main()

{
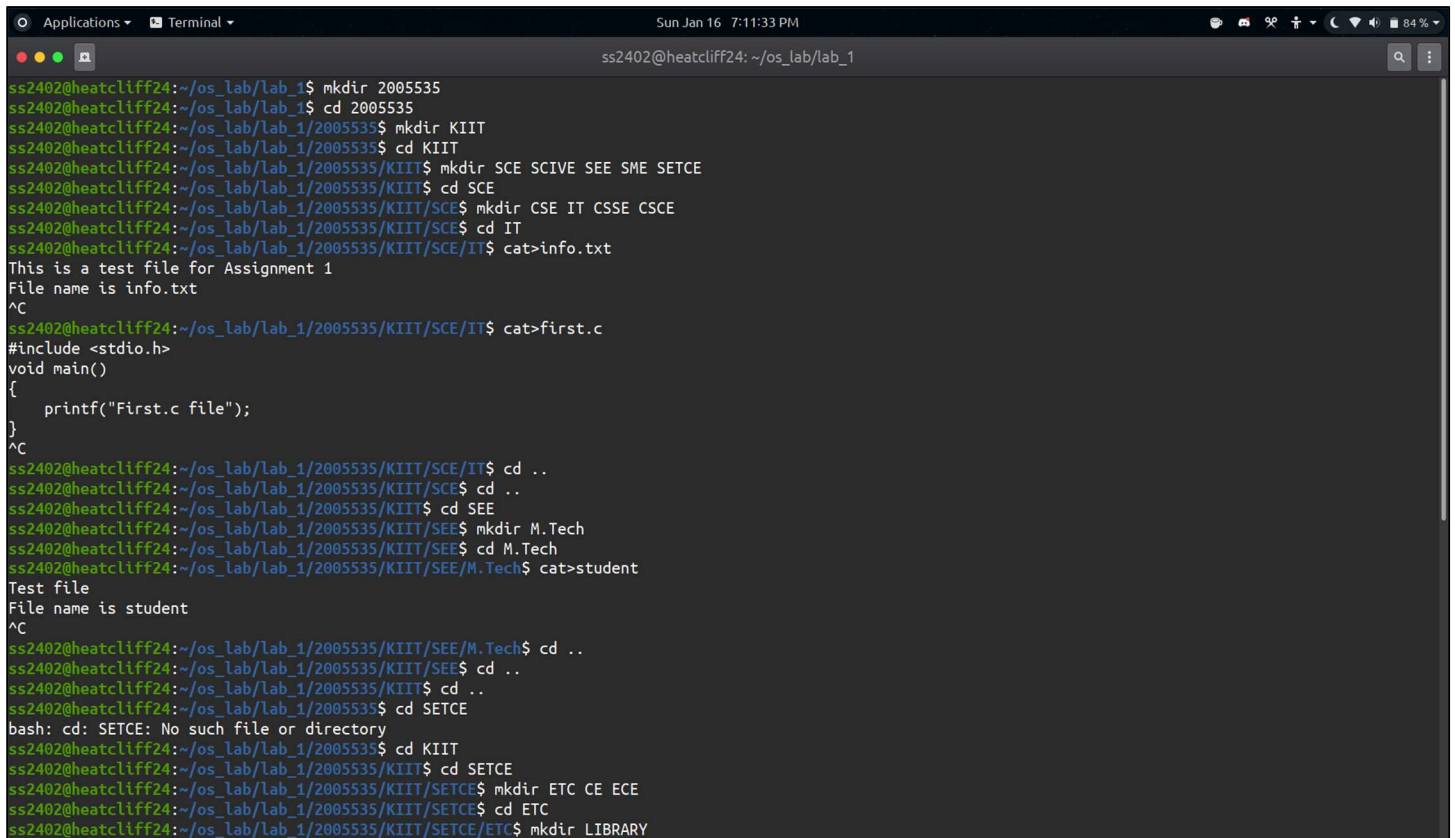
    printf("First.c file");

}

^C

/2005535/KIIT/SCE/IT$ cd ..

/2005535/KIIT/SCE$ cd ..

/2005535/KIIT$ cd SEE

/2005535/KIIT/SEE$ mkdir M.Tech

/2005535/KIIT/SEE$ cd M.Tech

/2005535/KIIT/SEE/M.Tech$ cat>student

Test file

File name is student

^C

/2005535/KIIT/SEE/M.Tech$ cd ..

/2005535/KIIT/SEE$ cd ..

/2005535/KIIT/SCE$ cd ..

/2005535/KIIT$ cd SETCE

/2005535/KIIT/SETCE$ mkdir ETC CE ECE

/2005535/KIIT/SETCE$ cd ETC

/2005535/KIIT/SETCE/ETC$ mkdir LIBRARY

B) Rename the file info.txt as itstudentsdata.txt.

SOLUTION:

/2005535/KIIT$ mv SCE/IT/info.txt SCE/IT/itsstudentdata.txt

/2005535/KIIT$ cat SCE/IT/itsstudentdata.txt

This is a test file for Assignment 1

File name is info.txt

C) Copy the file first.c into the directory CE with the same name.

SOLUTION:

/2005535/KIIT$ cp SCE/IT/first.c SETCE/CE/

/2005535/KIIT$ cat SETCE/CE/first.c

#include <stdio.h>

void main()

{

    printf("First.c file");

```
}
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ cp SCE/IT/first.c SETCE/CE/
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ cat SETCE/CE/first.c
#include <stdio.h>
void main()
{
    printf("First.c file");
}
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$
```

D) Copy the file first.c into the directory SME with a new name as hello.c.

SOLUTION:

/2005535/KIIT$ cp SCE/IT/first.c SME/hello.c

/2005535/KIIT$ cat SME/hello.c

#include <stdio.h>

void main()

{

    printf("First.c file");

}

```
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ cp SCE/IT/first.c SME/hello.c
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ cat SME/hello.c
#include <stdio.h>
void main()
{
    printf("First.c file");
}
```

E) Transfer the file student into the directory SCIVE and check whether transferred or not.

SOLUTION:

/2005535/KIIT$ mv SEE/M.Tech/student SCIVE/

/2005535/KIIT$ ls SCIVE

student

/2005535/KIIT$ cat SCIVE/student

Test file

File name is student

```
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ mv SEE/M.Tech/student SCIVE/
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ ls SCIVE
student
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ cat SCIVE/student
Test file
File name is student
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$
```

F) Rename CSSE to SYSTEM ENGG

SOLUTION:

/2005535/KIIT$ ls SCE

 CSCE   CSE   CSSE   IT

/2005535/KIIT$ mv SCE/CSSE SCE/'SYSTEM ENGG'

/2005535/KIIT$ ls SCE

 CSCE   CSE   IT 'SYSTEM ENGG'

G) Delete ECE directory.

SOLUTION:

/2005535/KIIT$ rmdir SETCE/ECE

/2005535/KIIT$ ls SETCE/ECE

ls: cannot access 'SETCE/ECE': No such file or directory

/2005535/KIIT$ ls SETCE

CE ETC

H) Delete SEE directory.

SOLUTION:

/2005535/KIIT$ ls

SCE   SCIVE   SEE   SETCE   SME

/2005535/KIIT$ rm -r SEE

/2005535/KIIT$ ls SEE

ls: cannot access 'SEE': No such file or directory

/2005535/KIIT$ ls

SCE   SCIVE   SETCE   SME

I) Copy IT directory to LIBRARY

SOLUTION:

/2005535/KIIT$ cp -r SCE/IT SETCE/ETC/LIBRARY

/2005535/KIIT$ ls SETCE/ETC/LIBRARY

IT

/2005535/KIIT$ tree SETCE

```
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ cp -r SCE/IT SETCE/ETC/LIBRARY
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ ls SETCE/ETC/LIBRARY
IT
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$ tree SETCE
SETCE
├── CE
│   └── first.c
└── ETC
    └── LIBRARY
        └── IT
            ├── first.c
            └── itsstudentdata.txt

4 directories, 3 files
ss2402@heatcliff24:~/os_lab/lab_1/2005535/KIIT$
```

Final Directory

```
ss2402@heatcliff24:~/os_lab/lab_1$ tree 2005535
2005535
└── KIIT
    ├── SCE
    │   ├── CSCE
    │   ├── CSE
    │   ├── IT
    │   │   ├── first.c
    │   │   └── itsstudentdata.txt
    │   └── SYSTEM ENGG
    ├── SCIVE
    │   └── student
    ├── SETCE
    │   ├── CE
    │   │   └── first.c
    │   └── ETC
    │       └── LIBRARY
    │           └── IT
    │               ├── first.c
    │               └── itsstudentdata.txt
    └── SME
        └── hello.c

13 directories, 7 files
ss2402@heatcliff24:~/os_lab/lab_1$
```