

## LAB 1 EXERCISE 1 :

1.write a shell cmmmands for the follwoing.

(i).To create a directory in your home directory having two subdirectorie.

**Answer:**

```
$ mkdir lab1
$ cd lab1
$ mkdir sub_1 sub_2
$ ls
sub_1  sub_2
```

(2).In the second subdirectory create three files with different content each of them.

**Answer:**

```
$ cat>file1.txt
This is the first file.
$ cat>file2.txt
This is the second file
$ cat>file3.txt
This is the third file
$ ls
file1.txt  file2.txt  file3.txt
```

(iii).Copy the first file from the first directory to the second directory.

**Answer:**

```
$ cp file1.txt /home/student/lab1/sub_2
$ cd /home/student/lab1/sub_2
$ ls
file1.txt
```

(iv).Create one more file in the second subdirectory,which has the output of number of user and number of files.

**Answer:**

```
$ cat>file3.sh
echo "The number of user logged in is = `who | wc -l`"
echo "The number of files in the current directory is = `ls -l | grep "^-" | wc -l`"$
chmod +x file3.sh
$ ./file3.sh
The number of user logged in is = 1
The number of files in the current directory is = 4
$ ls
file1.txt  file3.sh  file4.sh  new_file.txt
```

(v)To list all the file which start with a or A.

**Answer:**

```
$ ls -a
.  a.txt  file2.txt  nfile1.txt  sub_2  sub_4.sh
.. A.txt  merge     sub_1      sub_3.sh
$ ls [aA]*
```

a.txt A.txt

(vi).Display the output if the compliation of a program succeeds.

**Answer:**

```
$ cat>cprogram.c
$ ls
a.txt  A.txt  cprogram.c  file2.txt  merge  nfile1.txt  sub_1  sub_2
sub_3.sh  sub_4.sh
$ vim cprogram.c
$ chmod +x cprogram.c
$ gcc cprogram.c -o test.o
$ ./test.o
Hello world !
Program is been succeeded
```

(vii). Count the number of files in an input file.

**Answer:**

```
$ wc -l cprogram.c
5 cprogram.c
```

## LAB 2 EXERCISE 1 :

1. Try the following shell command

```
$ echo $HOME,$PATH
$ echo $MAIL
$ echo $USER,$SHELL,$TERM
```

**answer:**

```
$ echo $HOME,$PATH
/home/student,/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/
games:/usr/local/games:/snap/bin
$ echo $MAIL

$ echo $USER,$SHELL,$TERM
student,/bin/sh,xterm-256color
```

2. Try the following snippet, which illustrates the difference between a variable and an environment variable.

```
$ firstname=rakesh
$ lastname=sharma
$ echo $firstname $lastname
rakesh sharma
$ export lastname="lastname"
$ sh
control+D
$ echo $firstname $lastname
```

**Answer:**

```
$ firstname=mohammad
$ lastname=tofik
$ echo $firstname $lastname
mohammad tofik
$ export lastname="lastname"
$ sh
control+D
$ echo $firstname $lastname
mohammad tofik
```