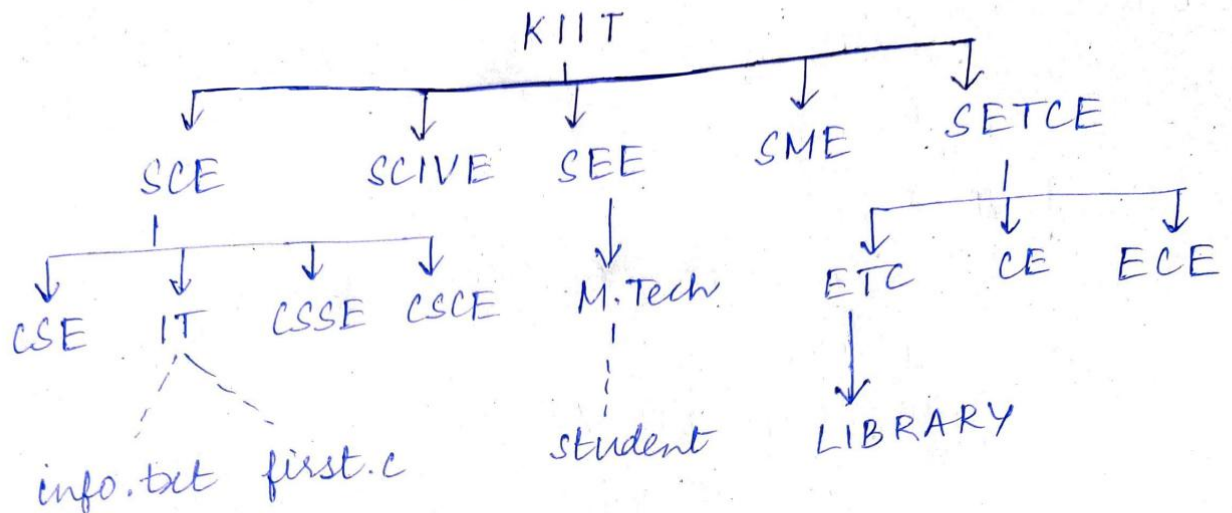


ANIRBAN HAZRA
2005643

Anirban Hazra

OS LABORATORY 1

Q. Create a directory 'Roll Number', under that



a) Create files and directories according to the above structure:

```
$ mkdir 2005643
```

```
$ cd 2005643
```

```
$ mkdir KIIT
```

```
$ cd KIIT
```

```
$ mkdir SCE SCIVE SEE SME SETCE
```

```
$ cd SCE
```

```
$ mkdir CSE IT CSSE CSCE
```

```
$ cd IT
```

```
$ cat > info.txt
```

The name of this file is info.txt.

```
$ cat > first.c
```

The name of this file is first.c

```
$ cd ..
```

```
$ cd ..
```

```
$ cd SEE
```

```
$ mkdir M.Tech
```

```
$ cd M.Tech
```

```
$ cat > student
```

The name of this file is student.

```
$ cd ..
```

```
$ cd ..
```

```
$ cd SETCE
```

```
$ mkdir ETC CE ECE
```

```
$ cd ETC
```

```
$ mkdir LIBRARY
```

```
$ cd ..
```

```
$ cd ..
```

SCREENSHOT:

```
kiit@kiit-VirtualBox:~$ mkdir 2005643
kiit@kiit-VirtualBox:~$ cd 2005643
kiit@kiit-VirtualBox:~/2005643$ mkdir KIIT
kiit@kiit-VirtualBox:~/2005643$ cd KIIT
kiit@kiit-VirtualBox:~/2005643/KIIT$ mkdir SCE SCIVE SEE SME SETCE
kiit@kiit-VirtualBox:~/2005643/KIIT$ cd SCE
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE$ mkdir CSE IT CSSE CSCE
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE$ cd IT
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE/IT$ cat > info.txt
The name of this file is info.txt
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE/IT$ cat > first.c
The name of this file is first.c
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE/IT$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT$ cd SEE
kiit@kiit-VirtualBox:~/2005643/KIIT/SEE$ mkdir M.Tech
kiit@kiit-VirtualBox:~/2005643/KIIT/SEE$ cd M.Tech
kiit@kiit-VirtualBox:~/2005643/KIIT/SEE/M.Tech$ cat > student
The name of this file is student
kiit@kiit-VirtualBox:~/2005643/KIIT/SEE/M.Tech$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT/SEE$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT$ cd SETCE
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE$ mkdir ETC CE ECE
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE$ cd ETC
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE/ETC$ mkdir LIBRARY
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE/ETC$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE$ cd ..
```

b) Rename the file info.txt to itstudentdata.txt,
\$ cd SCE/IT
\$ mv info.txt itstudentdata.txt.

SCREENSHOT:

```
kiit@kiit-VirtualBox:~/2005643/KIIT$ cd SCE/IT
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE/IT$ mv info.txt itstudentdata.txt
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE/IT$ ls
first.c itstudentdata.txt
```

c) copy the file first.c into directory CE with the same name:
\$ cp first.c /home/kiit/2005643/KIIT/SETCE/CE

SCREENSHOT:

```
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE/IT$ cp first.c /home/kiit/2005643/KIIT/SETCE/CE
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE/IT$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT$ cd SETCE/CE
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE/CE$ ls
first.c
```

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

```
$ cp first.c /home/Kiit/2005643/KIIT/SME/hello.c
```

SCREENSHOT:

```
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE/CE$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT/SETCE$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT$ cd SCE/IT
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE/IT$ cp first.c /home/kiit/2005643/KIIT/SME/hello.c
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE/IT$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT/SCE$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT$ cd SME
kiit@kiit-VirtualBox:~/2005643/KIIT/SME$ ls
hello.c
```

e) Transfer file student into SCIVE and check if transferred or not .

```
$ cd ..
$ cd ..
$ cd SEE/M.Tech
$ mv student /home/kiit/2005643/KIIT/SCIVE
$ cd ..
$ cd ..
$ cd SCIVE
$ ls
```

student

SCREENSHOT:

```
kiit@kiit-VirtualBox:~/2005643/KIIT/SME$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT$ cd SEE/M.Tech
kiit@kiit-VirtualBox:~/2005643/KIIT/SEE/M.Tech$ mv student /home/kiit/2005643/KIIT/SCIVE
kiit@kiit-VirtualBox:~/2005643/KIIT/SEE/M.Tech$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT/SEE$ cd ..
kiit@kiit-VirtualBox:~/2005643/KIIT$ cd SCIVE
kiit@kiit-VirtualBox:~/2005643/KIIT/SCIVE$ ls
student
```


ANIRBAN HAZRA
2005643

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OS LABORATORY 2

Q1. Write a Shell Script (WASS) to do calculator program using Arithmetic operators.

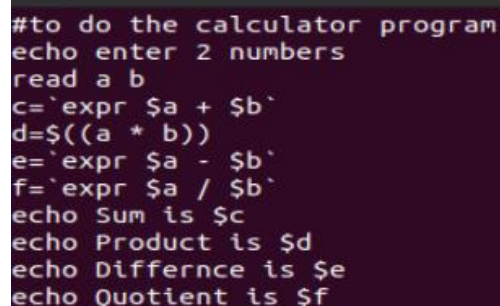
PROGRAM CODE:

```
# to do the calculator program
echo enter 2 numbers
read a b
c='expr $a + $b'
d=$((a * b))
e='expr $a - $b'
f='expr $a / $b'
echo Sum is $c
echo Product is $d
echo Difference is $e
echo Quotient is $f
```

OUTPUT:

```
enter 2 numbers
10 5
Sum is 15
Product is 50
Difference is 5
Quotient is 2
```

SCREENSHOT:



```
#to do the calculator program
echo enter 2 numbers
read a b
c='expr $a + $b'
d=$((a * b))
e='expr $a - $b'
f='expr $a / $b'
echo Sum is $c
echo Product is $d
echo Differnce is $e
echo Quotient is $f
```

```
kiit@kiit-VirtualBox:~$ vi calculator
kiit@kiit-VirtualBox:~$ sh calculator
enter 2 numbers
10 5
Sum is 15
Product is 50
Difference is 5
Quotient is 2
```

Q2. WASS to find the average of 3 numbers.

PROGRAM CODE:

To find average of 3 numbers.

echo Enter 3 numbers

read a b c

d=`expr \$a + \$b + \$c`

e=`expr \$d / 3`

echo Average of 3 numbers is \$e

OUTPUT:

Enter 3 numbers

4 6 8

Average of 3 numbers is 6

SCREENSHOT:

```
#To find average of 3 numbers

echo Enter 3 numbers
read a b c
d=`expr $a + $b + $c`
e=`expr $d / 3`
echo Average of 3 numbers is $e
```

```
kiit@kiit-VirtualBox:~$ vi average
kiit@kiit-VirtualBox:~$ sh average
Enter 3 numbers
4 6 8
Average of 3 numbers is 6
```

Q3. WASS to find the Simple Interest, when P, R, T are given.

PROGRAM CODE:

```
# calculate the Simple Interest
echo Enter P, R and T
read P R T
SI=`expr $P \* $T \* $R / 100`
echo Simple Interest is $SI
```

OUTPUT:

Enter P, R and T

2000 4 10

Simple Interest is 800.

SCREENSHOT:

```
#calculate the simple interest
echo Enter P, R and T
read P R T
SI=`expr $P \* $T \* $R / 100`
echo Simple Interest is $SI
```

```
kiit@kiit-VirtualBox:~$ sh simple_interest
Enter P, R and T
2000 4 10
Simple Interest is 800
```

Q4 WASS to find area of a triangle when base and height are given.

PROGRAM CODE:

```
# Area of a Triangle
```

```
echo Enter base and height of Triangle
```

```
read b h
```

```
ar=$((b*h)/2))
```

```
echo Area of Triangle is $ar.
```

OUTPUT:

Enter base and Height of Triangle

5 4

Area of Triangle is 10.

SCREENSHOT:

```
#Area of Triangle
echo Enter base and Height of Triangle
read b h
ar=$((b * h)/2))
echo Area of Triangle is $ar
```

```
kiit@kiit-VirtualBox:~$ vi Triangle
kiit@kiit-VirtualBox:~$ sh Triangle
Enter base and Height of Triangle
5 4
Area of Triangle is 10
```


Q5 WASS to find area and circumference of a circle.

PROGRAM CODE:

```
#Area and circumference of a circle
```

```
echo Enter the Radius of circle
```

```
read r
```

```
ar=$(bc <<< "$r * $r * 3.14")
```

```
c=$(bc <<< "2 * 3.14 * $r")
```

```
echo circumference is $c
```

```
echo Area is $ar
```

OUTPUT

```
Enter the Radius of Circle
```

```
5
```

```
Circumference is 31.40
```

```
Area is 78.50
```

SCREENSHOT:

```
#Area and Circumference of a Circle

echo Enter the Radius of Circle
read r
ar=$(bc <<< "$r * $r * 3.14")
c=$(bc <<< "2 * 3.14 * $r")
echo Circumference is $c .
echo Area is $ar
```

```
kiit@kiit-VirtualBox:~$ bash circle
Enter the Radius of Circle
5
Circumference is 31.40 .
Area is 78.50
```