Week 9-Lab Program 6

Solve this program and write the procedure you have used to
execute this in your observation

Create a package CIE which has two classes- Student and Internals. The
class Personal has members like usn, name, sem. The class Internals has an
array that stores the internal marks scored in five courses of the current
semester of the student. Create another package SEE which has the class
External which is a derived class of Student. This class has an array that
stores the SEE marks scored in five courses of the current semester of the
student. Import the two packages in a file that declares the final marks of n
students in all five courses.

Programs:

student.java
package CIE;
import java.util.Scanner;

public class Student
{
public String name;
public String usn;
public int sem;
public void display()
{
        Scanner s=new Scanner(System.in);
        System.out.println("Name:");
        name=s.next();
        System.out.println("USN:");
        usn=s.next();
        System.out.println("Semester:");
        sem=s.nextInt();
}
}

Internals.java
package CIE;
import java.util.Scanner;

public class Internals extends Student
{
   public double ciem[];

```java
    public void display()
    {
            ciem=new double[5];
            Scanner t=new Scanner(System.in);
    System.out.println("CIE Marks for 5 subjects(out of 50):");
    for(int i=0;i<5;i++)
    ciem[i]=t.nextDouble();
    }
}


Externals.java
package SEE;
import java.util.*;
import CIE.*;

public class Externals extends CIE.Student
{
    public double seem[];

    public void display()
    {
            seem=new double[5];
            Scanner s=new Scanner(System.in);
    System.out.println("SEE Marks for 5 subjects(out of 100):");
    for(int i=0;i<5;i++)
    seem[i]=s.nextDouble();
    }
}


main.java
import CIE.*;
import SEE.*;
import java.util.Scanner;
public class main
{
        public static void main(String args[])
        {
                int n;
                Scanner s=new Scanner(System.in);
                System.out.println("Enter the number of students:");
                n=s.nextInt();
```

```java
CIE.Student st[]=new CIE.Student[n];
CIE.Internals in[]=new CIE.Internals[n];
SEE.Externals e[]=new SEE.Externals[n];
for(int i=0;i<n;i++)
{
        st[i]=new CIE.Student();
        in[i]=new CIE.Internals();
        e[i]=new SEE.Externals();
        st[i].display();
        in[i].display();
        e[i].display();
        System.out.println("Total marks of student "+st[i].name+" in 5
subjects are:");

        for(int j=0;j<5;j++)
        {
                System.out.println(in[i].ciem[j]+(e[i].seem[j]/2));
        }

}
    }
}
```

OUTPUT:

```
Enter the number of students:
2
Name:
Helly
USN:
1BM19CS001
Semester:
3
CIE Marks for 5 subjects(out of 50):
34
45
47
38
39
SEE Marks for 5 subjects:
89
98
78
79
96
Total marks of student Helly in 5 subjects are:
78.5
94.0
86.0
77.5
87.0
```

```
Name:
Suman
USN:
1BM18CS010
Semester:
5
CIE Marks for 5 subjects(out of 50):
35
49
50
39
48
SEE Marks for 5 subjects:
82
95
88
69
100
Total marks of student Suman in 5 subjects are:
76.0
96.5
94.0
73.5
98.0

D:\Kusum\III SEMESTER\OOJ2020\packages>
```