Create a package CIE which has two classes Student
and Internals. The class Student has members like
usn, name, sem. The class internals derived from
Student has an array 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 deserves declares the final marks of n
students. ~~Import the two packages~~

```java
//Class Student
package CIE;
import java.util.Scanner;

public class Student{
    protected String usn = new String ();
    protected String name = new String ();
    protected int sem;

    public void inputStudentDetails (){
        Scanner s = new Scanner (System.in);
        System.out.println ("Enter USN:);
        usn = s.next ();
        System.out.println ("Enter Name:);
        name = s.next ();
        System.out.println ("Enter Semester:" );
        sem = s.nextInt ();
    }
```

```java
public void displayStudentDetails()
{
        System.out.println("USN :" + usn);
        System.out.println("Name :" + name);
        System.out.println("Semester :" + sem);
}
}


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

public class Internals extends Student {
        protected int marks[] = new int[5];

        public void inputCIEmarks()
        {
                Scanner s = new Scanner(System.in);
                System.out.println("Enter internal marks for"
                        + name);
                for (int i=0; i<5; i++)
                {
                        System.out.println("Enter Internal Marks for
                        System.out.print("Subject " + (i+1) + " marks :");
                        marks[i] = s.nextInt();
                }
        }
}
```

```java
// Externals.java
package SEE;

import java.util.Scanner;

public class Externals extends Internals
{
    protected int marks[];
    protected int finalMarks[];

    public Externals()
    {
        marks = new int[5];
        finalMarks = new int[5];
    }
    public void inputSEEmarks()
    {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter SEE marks for "+name);
        for (int i=0; i<5; i++){
            System.out.print("Subject "+(i+1)+ " Marks:");
            marks[i] = s.nextInt();
        }
    }
    public void calculateFinalMarks()
    {
        for(int i=0; i<5; i++)
            finalMarks[i] = marks[i]/2 +super.marks[i];
    }
    public void displayFinalMarks()
    {
        displayStudentDetails();
        for (int i=0; i<5; i++)
            System.out.println("Subject "+(i+1)+ ":"
                +finalMarks[i]);
    }
}
```

```java
}

# Pkgmain.java

import SEE.Externals;

public class Pkgmain {
    public static void main (String args []) {
        int numOfStudents = 2;
        Externals finalMarks[] = new Externals [numOfStudents];

        for (int i = 0; i < numOfStudents; i++)
        {
            finalMarks [i] = new Externals();
            finalMarks [i] = inputStudentDetails ();
            System.out.println("Enter CIE marks");
            finalMarks[i] . inputCIEmarks();
            System.out.println(" Enter SEE marks");
            finalMarks [i]. input SEE marks();
        }
        System.out.println ("Displaying data: \n");

        for (int i = 0; i < numOfStudents; i++) {
            finalMarks [i]. calculateFinalMarks();
            finalMarks [i]. displayFinalMarks();
        }
    }
}
```

Output:
Enter USN: 101
Enter Name: Shreyas
Enter Semester: 3
Enter CIE marks
Enter Internal Marks for Shreyas
Subject 1 marks: 45
Subject 2 marks: 47
Subject 3 marks: 48
Subject 4 marks: 49
Subject 5 marks: 50
Enter SEE marks for Shreyas
Subject 1 marks: 99
Subject 2 marks: 99
Subject 3 marks: 97
Subject 4 marks: 98
Subject 5 marks: 96
Enter USN: ~~Kevin~~ 102
Enter Name: Kevin
Enter Semester: 3
Enter CIE marks:
Enter Internal marks for Kevin
Subject 1 marks: 9
Subject 2 marks: 6
Subject 3 marks: 4
Subject 4 marks: 5
Subject 5 marks: 7
Enter SEE marks
Enter SEE marks for Kevin
Subject 1 marks: 12
Subject 2 marks: 14
Subject 3 marks: 15
Subject 4 marks: 16
Subject 5 marks: 17

Displaying data:

USN = 101
Name: Shreyas
Semester : 3
Subject 1 : 94
Subject 2 : 96
Subject 3 : 96
Subject 4 : 98
Subject 5 : 98

USN : 102
Name: kevin
Semester : 3
Subject 1 : 15
Subject 2 : 13
Subject 3 : 11
Subject 4 : 13
Subject 5 : 15

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23/01/24