Open Ended Program

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.

Code:

```
package CIE;


public class Student1{
   public String usn;
   public String name;
   public int sem;
}
package CIE;


public class Internals extends Student1{
   public int marks[] = new int[5];
}
package SEE;
import CIE.Student1;


public class External extends Student1{
   public int marks[] = new int[5];
}
```

```
import java.util.Scanner;
import CIE.Internals;
import SEE.External;

public class lots_of_packages{
   public static void main(String args[]){
      Scanner sc = new Scanner(System.in);
      int n, i, j;
      System.out.println("Enter the number of students:");
      n = sc.nextInt();
      Internals[] inter = new Internals[n];
      External[] exter = new External[n];
      for(i=0;i<n;i++){
         inter[i] = new Internals();
         exter[i] = new External();
         System.out.println("Enter the details of "+ (i+1)+"th Student");
         System.out.println("Enter their USN");
         inter[i].usn = sc.next();
         exter[i].usn = inter[i].usn;
         System.out.println("Enter name: ");
         inter[i].name = sc.next();
         exter[i].name = inter[i].name;
         System.out.println("Enter Semester: ");
         inter[i].sem = sc.nextInt();
         exter[i].sem = inter[i].sem;
         System.out.println("Enter the internal marks of 5 courses with 3 credits each: ");
         for(j=0;j<5;j++)
            inter[i].marks[j] = sc.nextInt();
         System.out.println("Enter the External marks of 5 subjects with 3 credits each: ");
```

```
            for(j=0;j<5;j++)
                exter[i].marks[j] = sc.nextInt();
        }
        System.out.println("Details of students with their final marks are: ");
        for(i=0;i<n;i++){
            System.out.println("Student "+ (i+1)+ ": ");
            System.out.println("USN: "+ inter[i].usn);
            System.out.println("Name: " + inter[i].name);
            System.out.println("Semester: "+ inter[i].sem);
            System.out.println("Final Marks: ");
            for(j=0;j<5;j++)
                System.out.println((j+1)+ "th subject: "+ ((inter[i].marks[j]+exter[i].marks[j])/2));
        }

    }
}
```

```
Enter the number of students:
1
Enter the details of 1th Student
Enter their USN
1BM21CS246
Enter name:
Risha
Enter Semester:
3
Enter the internal marks of 5 courses with 3 credits each:
99
99
99
99
99
Enter the External marks of 5 subjects with 3 credits each:
99
99
99
99
99
Details of students with their final marks are:
Student 1:
USN: 1BM21CS246
Name: Risha
Semester: 3
Final Marks:
1th subject: 99
2th subject: 99
3th subject: 99
4th subject: 99
5th subject: 99
PS C:\mycode>
```