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 that stores the internal marks scored in 5 courses of the current semester of the student. Create another package SEE which has the class external which is derived class of student. This class has an array which stores the SEE marks of current semester of student. Import the two packages in file that declears a final marks of n students in all five courses.

```
package CIE;
import java.util.*;
public class Student{
protect string name = new String();
protected String USN = new String();
protected int sem;
public void inputstudentdetails(){
 Scanner s = new Scanner(System.in);
 System.out.println("enter the name");
  name= s.nextLine();
 System.out.println("enter the sem");
  sem = s.nextInt();
}
public void displaystudentdetail(){
  System.out.println("Name" + name);
  System.out.println("USN" + USN);
  System.out.println("sem" + sem);
}
```

// Internals

```
package CIE;
import java.util.*;
public class Internal extends Student {
 protected int marks = new int[5];
 public void inputCIEmarks() {
  Scanner s = new Scanner(System.in);
   for(int i=0; i<5; i++){
     marks[i] = s.nextInt();
    }
  }
}
```

// Externals

```
package SEE;
import CIE.Internals;
import java.util.*;
public class External extends Externals{
protected int marks[];
 protected int finalmarks[];
  public Externals(){
   marks = new int[5];
   finalmarks = new int[5];
  }
  public void inputExternalMarks(){
   Scanner s= new Scanner(System.in);
   for(int i=0; i<5; i++)
   { System.out.println("Enter 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)+" final marks[i]);
   }
 }
}
// main
import SEE.Externals ;
class main {
     public static void main( String args[] ){
     int n=2;
      External finalmarks [] = new Externals [n];
      for (int i=0; i<5; i++) {
         final marks [i] = new Externals();
         final marks [i]. inputStudentDetails();
         System.out.println (" Enter CIE marks");
         finalmarks [i] . inputCIEMarks();
         System.out.println ("Enter SEE marks:");
         finalmarks [i] . inputSEEMarks();
      }
```

```
System.out.println("Displaying Data");
for(int i=0;i<5;i++)
finalmarks[i].calculateFinalMarks();
finalmarks[i].displayFinalMarks();
}
```

Output:

Enter the USN : 1BM22CS253

Enter the name : Sharanabasappa

Enter sem : 3

Enter CIE marks:

Subject 1 : 44

Subject 2 : 47

Subject 3 : 40

Subject 4 : 43

Subject 5 : 44

Enter SEE marks:

Subject 1 : 88

Subject 2 : 89

Subject 3 : 87

Subject 4 : 88

Subject 5 : 87

Display Data:

USN : 1BM22CS253

Name : Sharanabasappa

Sem : 3

Subject 1 : 86

Subject 2 : 90

Subject 3 : 85

Subject 4 : 87

Subject 5 : 87

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