Lab 6:

6. 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.

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              External which is a derived class of student. They class has
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               line course.
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                   producted string name;
                  natically int Mm;
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                   public student (string war, string name, at um) &
only ),
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                            This name = nome;
this num = nm;
                     public void displaystails () &
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                          a , smetu: " + xem);
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               public dans inturalise
occurs.
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                     public Internals ("inti] internal Marks) {
                             This, attended = intermed Horses;
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 import ar. Intends;
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 public class external returns Student {
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private for fil vibralitants;
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               public Bathard (Sting Un, String name, at humilton intil inflandation, at a school transform
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                public void display &dural Marks () &
              System out princh (" External Marks: ");
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            public vid displays a XX
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Evite Extend Mouth for 5 causes.
        25 80 85 78 40 CO STATE OF STA
        USN : 16M18CSLOI Name: John Doe , Simulte; 5
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        Intural Marky:
       Carre 1:80 corred: 85 Corres: 10 correct: 88
       Course 1:25 Course 1:30 Course 3:85 Course 4:78
Course 5:90 what facility with a
   Final Marks (Extract + External):
     Course 2:155 Course 2:165 Course 3:125 Course 4:166
        Course 5:182
```

Code:

```
package CIE;
import java.util.Scanner;
public class Student {
       String usn;
       String name;
       int sem;
       public void getd() {
              Scanner sc = new Scanner(System.in);
              System.out.println("Enter student USN");
              usn = sc.nextLine();
              System.out.println("Enter student name");
              name = sc.nextLine();
              System.out.println("Enter semester");
              sem = sc.nextInt();
       public void display() {
              System.out.println();
              System.out.println("Student USN: "+usn);
              System.out.println("Student name: "+name);
              System.out.println("Semester: "+sem);
              System.out.println();
       }
}
package CIE;
import java.util.Scanner;
public class Internals {
       public int marksCie[] = new int[5];
       public void getMarks() {
              for(int i=0;i<5;i++) {
```

```
Scanner sc = new Scanner(System.in);
                      System.out.println("Enter CIE marks in subject "+(i+1));
                      marksCie[i]=sc.nextInt();
               }
       }
       public int returnCieMarks(int i) {
              return marksCie[i];
       }
}
package SEE;
import CIE.Student;
import CIE.Internals;
import java.util.Scanner;
public class Externals extends Student {
       int marksSee[] = new int[5];
       public void getMarks() {
              for(int i=0;i<5;i++) {
                      Scanner sc = new Scanner(System.in);
                      System.out.println("Enter SEE marks in subject "+(i+1));
                      marksSee[i]=sc.nextInt();
               }
       }
       public void calcTotalMarks(Internals i1) {
              for(int i=0; i<5; i++) {
                      System.out.println("Subject "+(i+1)+":
"+(i1.returnCieMarks(i)+(marksSee[i]/2)));
               }
              System.out.println();
       }
}
```

```
import CIE.Student;
import CIE.Internals;
import SEE.Externals;
import java.util.Scanner;
public class Main {
       public static void main(String args[]) {
               Scanner sc = new Scanner(System.in);
               System.out.println("Enter the number of students whose details you want to
enter");
               int n = sc.nextInt();
               Internals[] i1 = new Internals[n];
               Externals[] e1 = new Externals[n];
               for(int i=0;i<n;i++) {
                      System.out.println("Student "+(i+1)+" details:");
                      el[i] = new Externals();
                      i1[i] = new Internals();
                      e1[i].getd();
                      i1[i].getMarks();
                      e1[i].getMarks();
               }
               for(int i=0;i<n;i++) {
                      el[i].display();
                      el[i].calcTotalMarks(il[i]);
               }
}
```

Output:

```
\package>java Main
uter the number of students whose details you want to enter
                  tudent 1 details:
nter student USN
BM23CS30
nter student name
inchana Hemanth
nter semester
        Sinchana Hemanth
Enter seessiver
Enter CIE marks in subject 1
5
Enter CIE marks in subject 2
9
Enter CIE marks in subject 3
40
Enter CIE marks in subject 3
40
Enter CIE marks in subject 5
50
Enter SEE marks in subject 5
50
Enter SEE marks in subject 1
50
Enter SEE marks in subject 2
50
Enter SEE marks in subject 2
50
Enter SEE marks in subject 2
50
Enter SEE marks in subject 3
50
Enter SEE marks in subject 3
50
Enter SEE marks in subject 3
50
Enter SEE marks in subject 4
50
Enter SEE marks in subject 4
50
Enter SEE marks in subject 5
Enter SEE marks in subject 5
Enter SEE marks in subject 5
Enter Student USN
ENTRYSCASI
Enter student usn
Enter student usn
Enter student mane
Enter Student subject 5
Enter Student subject 5
Enter Student subject 5
Enter Student SEE
Enter Student subject 1
Enter CIE marks in subject 1
  Enter semister

2 Enter CIE marks in subject 1

8 Enter CIE marks in subject 2

6 Enter CIE marks in subject 3

60 Enter CIE marks in subject 4

65 Enter CIE marks in subject 4

65 Enter CIE marks in subject 4

66 Enter SIE marks in subject 1

60 Enter SIE marks in subject 2

60 Enter SIE marks in subject 2

60 Enter SIE marks in subject 3

60 Enter SIE marks in subject 4

60 Enter SIE marks in subject 4

60 Enter SIE marks in subject 5

60 Enter SIE marks in subject 5

60 Enter SIE marks in subject 5
  Student USN: 1BM23CS330
Student name: Sinchana Hemanth
Semester: 3
  Subject 1: 92
Subject 2: 98
Subject 3: 93
Subject 4: 90
Subject 5: 100
  Student USN: 1BM23CS317
Student name: Shreya Raj
Semester: 3
Subject 1: 98
Subject 2: 85
Subject 3: 98
Subject 4: 91
Subject 5: 87
  D:\package>
```