Java Lab Program 6

Personal Class:

```java
package CIE;
import java.util.*;

public class personal {
    public String name;
    public int sem;
    public String usn;

    public void read() {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the name");
        name = sc.next();
        System.out.println("Enter the semester");
        sem = sc.nextInt();
        System.out.println("Enter the USN");
        usn = sc.next();
    }

    public void display() {
        System.out.println("Student details: ");
        System.out.println("Name: " + name + "\nUSN: " + usn + "\nSem: " + sem);
    }
```

}

Internal Class:

```java
package CIE;

import java.util.*;

public class internals extends personal
{
        public double cie[];

        public void accept()
        {
                cie= new double[5];
                Scanner sc = new Scanner(System.in);
                for(int i=0;i<5;i++)
                {
                        System.out.println("CIE mark for course "+(i+1)+" : ");
                        cie[i]= sc.nextDouble();
                }
        }
}
```

External Class:

```java
package SEE;

import java.util.*;

import CIE.*;
```

```java
public class externals extends personal
{
        public double see[];


        public void get()
        {
                see= new double[5];
                Scanner sc = new Scanner(System.in);
                for(int i=0;i<5;i++)
                {
                        System.out.println("SEE mark for course "+(i+1)+" : ");
                        see[i]= sc.nextDouble();
                }
        }
}
```

Main Class:

```java
import CIE.*;
import SEE.*;
import java.util.*;

class Main {
   public static void main(String args[]) {
      Scanner sx = new Scanner(System.in);
      System.out.println("Enter the number of students");
      int n = sx.nextInt();
```

```java
CIE.internals in[] = new CIE.internals[n];
SEE.externals en[] = new SEE.externals[n];
int i, j;
for (i = 0; i < n; i++) {
    System.out.println("Student " + (i + 1));
    in[i] = new CIE.internals();
    en[i] = new SEE.externals();
    in[i].read();


    System.out.println("CIE MARKS:");
    in[i].accept();
    System.out.println("SEE MARKS:");
    en[i].get();
    System.out.println();
    in[i].display();
    for (j = 0; j < 5; j++)


        System.out.println("Total Marks for course " + (j + 1) + ": " + (in[i].cie[j] + (en[i].see[j] / 2)));
    }
  }
}
```

Output:

```
Enter the number of students
2
Student 1
Enter the name
Ram
Enter the semester
3
Enter the USN
745
CIE MARKS:
CIE mark for course 1 :
45
CIE mark for course 2 :
55
CIE mark for course 3 :
40
CIE mark for course 4 :
35
CIE mark for course 5 :
47
SEE MARKS:
SEE mark for course 1 :
60
SEE mark for course 2 :
70
SEE mark for course 3 :
50
SEE mark for course 4 :
40
SEE mark for course 5 :
80

Student details:
```

```
Enter the USN
745
CIE MARKS:
CIE mark for course 1 :
40
CIE mark for course 2 :
35
CIE mark for course 3 :
25
CIE mark for course 4 :
35
CIE mark for course 5 :
46
SEE MARKS:
SEE mark for course 1 :
80
SEE mark for course 2 :
70
SEE mark for course 3 :
60
SEE mark for course 4 :
65
SEE mark for course 5 :
55

Student details:
Name: Bob
USN: 745
Sem: 3
Total Marks for course 1: 80.0
Total Marks for course 2: 70.0
Total Marks for course 3: 55.0
Total Marks for course 4: 67.5
Total Marks for course 5: 73.5
```