

**LAB PROGRAM 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.

```
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);
    }
}
```

```
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();
        }
    }
}
```

```
package SEE;

import java.util.*;

import CIE.*;

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();
        }
    }
}

```

```

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

```

```

class LAB6
{
    public static void main(String args[])
    {
        Scanner sx = new Scanner(System.in);
        System.out.println("Enter the number of students");
        int n= sx.nextInt();
        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:**

Command Prompt

```
C:\Users\Dell\Desktop\java>java LAB6
Enter the number of students
2
Student 1
Enter the name
TRISHA
Enter the semester
3
Enter the USN
214
CIE MARKS:
CIE mark for course 1 :
40
CIE mark for course 2 :
45
CIE mark for course 3 :
46
CIE mark for course 4 :
50
CIE mark for course 5 :
47
SEE MARKS:
SEE mark for course 1 :
80
SEE mark for course 2 :
90
```

Command Prompt

```
SEE mark for course 2 :
90
SEE mark for course 3 :
85
SEE mark for course 4 :
75
SEE mark for course 5 :
90

Student details:
Name: TRISHA
USN: 214
Sem: 3
Total Marks for course 1: 80.0
Total Marks for course 2: 90.0
Total Marks for course 3: 88.5
Total Marks for course 4: 87.5
Total Marks for course 5: 92.0
Student 2
Enter the name
SAM
Enter the semester
3
Enter the USN
200
CIE MARKS:
CIE mark for course 1 :
```

Command Prompt

```
CIE MARKS:
CIE mark for course 1 :
45
CIE mark for course 2 :
46
CIE mark for course 3 :
47
CIE mark for course 4 :
48
CIE mark for course 5 :
49
SEE MARKS:
SEE mark for course 1 :
90
SEE mark for course 2 :
91
SEE mark for course 3 :
92
SEE mark for course 4 :
93
SEE mark for course 5 :
94
```

Student details:

Name: SAM

USN: 200

Sem: 3

Total Marks for course 1: 90.0

Total Marks for course 2: 91.5

Total Marks for course 3: 93.0

Total Marks for course 4: 94.5

Total Marks for course 5: 96.0