

## LAB-6

### File with name student.java-

/\*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. Below is two programs of class Student and class Internals.Both belong to a package named CIE. Class Internals extends from class Student.

\*/

```
package CIE;
import java.util.Scanner;
public class Student
{
    public String name;
    public String usn;
    public int sem;
    public void display()
    {
        Scanner s=new Scanner(System.in);
        System.out.println("Name:");
        name=s.next();
        System.out.println("USN:");
        usn=s.next();
        System.out.println("Semester:");
        sem=s.nextInt();
    }
}
```

### File with name Main.java-

```
import CIE.*;
import SEE.*;
import java.util.Scanner;
public class Main
{
    public static void main(String args[])
    {
        int n;
        Scanner s=new Scanner(System.in);
        System.out.println("Enter the number of students:");
        n=s.nextInt();
        CIE.Student st[]=new CIE.Student[n];
        CIE.Internals in[]=new CIE.Internals[n];
        SEE.Externals e[]=new SEE.Externals[n];
        for(int i=0;i<n;i++)
        {
            st[i]=new CIE.Student();
            in[i]=new CIE.Internals();
            e[i]=new SEE.Externals();
            st[i].display();
            in[i].display();
            e[i].display();
            System.out.println("Total marks of student"+st[i].name+" in 5 subjects are:");
            for(int j=0;j<5;j++)
            {
                System.out.println(in[i].ciem[j]+(e[i].seem[j]/2));
            }
        }
    }
}
```

### **File with name Internals.java-**

```
package CIE;
import java.util.Scanner;
public class Internals extends Student
{
    public double ciem[];

    public void display()
    {
        ciem=new double[5];
        Scanner t=new Scanner(System.in);
        System.out.println("CIE Marks for 5 subjects(out of 50):");
        for(int i=0;i<5;i++)
            ciem[i]=t.nextDouble();
    }
}
```

### **File with name Externals.java-**

```
package SEE;
import java.util.*;
import CIE.*;
public class Externals extends CIE.Student
{
    public double seem[];

    public void display()
    {
        seem=new double[5];
        Scanner s=new Scanner(System.in);
        System.out.println("SEE Marks for 5 subjects(out of 100):");
        for(int i=0;i<5;i++)
            seem[i]=s.nextDouble();
    }
}
```

C:\ Command Prompt

D:\coding files\00J Lab\packages>java Main

Enter the number of students:

2

Name:

Hemang

USN:

12345

Semester:

3

CIE Marks for 5 subjects(out of 50):

43

23

33

45

31

SEE Marks for 5 subjects(out of 100):

78

66

55

69

89

Total marks of studentHemang in 5 subjects are:

82.0

56.0

60.5

79.5

75.5

Name:

Singh

USN:

67890

Semester:

2

CIE Marks for 5 subjects(out of 50):

54

34

22

12

34

SEE Marks for 5 subjects(out of 100):

56

67

89

Command Prompt

```
45
31
SEE Marks for 5 subjects(out of 100):
78
66
55
69
89
Total marks of studentHemang in 5 subjects are:
82.0
56.0
60.5
79.5
75.5
Name:
Singh
USN:
67890
Semester:
2
CIE Marks for 5 subjects(out of 50):
54
34
22
12
34
SEE Marks for 5 subjects(out of 100):
56
67
89
75
44
Total marks of studentSingh in 5 subjects are:
82.0
67.5
66.5
49.5
56.0

D:\coding files\00J Lab\packages>
```