

## LAB 6.

Create a package CEE which has two classes - student and Internals.  
 The class student has members IPKE, usn, name, sem. The class Internals (derived class of student) 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 CEE:

```
package CEE;
import java.util.Scanner;
public class student
{
    public String usn;
    public String name;
    public int sem;
    Scanner xx = new Scanner(System.in);
    public void student()
    {
        System.out.println("Enter Student's USN:");
        usn = xx.next();
        System.out.println("Enter Student's NAME:");
        name = xx.next();
        System.out.println("Enter Student's SEMESTER:");
        sem = xx.nextInt();
    }
}
```

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```

1. package CIE;
import java.util.Scanner;
public class Internals extends Student
{
    public Double marks[] = new Double[5];
    int i;
    public void Internals()
    {
        for (i = 0; i < 5; i++)
        {
            System.out.println("Enter the Internals marks  
scored in subject " + (i + 1));
            marks[i] = xx.nextDouble();
        }
    }
}

```

### PACKAGE SEE :

```

package SEE;
import CIE.*;
import java.util.Scanner;
public class Externals extends CIE.Student
{
    Scanner xx = new Scanner(System.in);
    public Double see[] = new Double[5];
    int j;
    public void Externals()
    {
        for (j = 0; j < 5; j++)
        {
            System.out.println("Enter the External marks  
scored in subject " + (j + 1));
            see[j] = xx.nextDouble();
            see[j] = see[j] / 2;
        }
    }
}

```

## MAIN CLASS :

```
import CIE.*;
import SEE.*;
import java.util.Scanner;
class finalmarks
{
    public static void main (String args[])
    {
        int m, k;
        Scanner xx = new Scanner (System.in);
        System.out.println ("Enter the number of students");
        m = xx.nextInt();
        CIE.Externals i[] = new CIE.Externals[m];
        SEE.Externals e[] = new SEE.Externals[m];
        for (k=0; k<m; k++)
        {
            i[k] = new CIE.Externals();
            e[k] = new SEE.Externals();
            System.out.println ("ENTER DETAILS OF STUDENT"
                                + (k+1));
            i[k].student();
            i[k].Internals();
            e[k].Externals();
        }
        for (k=0; k<m; k++)
        {
            for (int l=0; l<5; l++)
            {
                System.out.println ("Total marks of Student " + (k+1)
                                    + " in subject " + (l+1) + " = " +
                                    (i[k].marks[l] + e[k].see[l]));
            }
        }
    }
}
```

```
C:\Users\sagar G\Dropbox\My PC (LAPTOP-DFE3MJ0A)\Documents\JAVA>javac Lab6.java
javac: file not found: Lab6.java
Usage: javac <options> <source files>
use -help for a list of possible options

C:\Users\sagar G\Dropbox\My PC (LAPTOP-DFE3MJ0A)\Documents\JAVA>javac Lab6.java

C:\Users\sagar G\Dropbox\My PC (LAPTOP-DFE3MJ0A)\Documents\JAVA>java finalmarks
Enter the number of students
2
ENTER DETAILS OF STUDENT 1
Enter Student's USN :
1BM19CS001
Enter Student's NAME :
xyz
Enter Student's SEMESTER :
2
Enter the Internals marks scored in subject 1
46
Enter the Internals marks scored in subject 2
48
Enter the Internals marks scored in subject 3
47
Enter the Internals marks scored in subject 4
45
Enter the Internals marks scored in subject 5
49
Enter the Externals marks scored in subject 1
95
Enter the Externals marks scored in subject 2
94
Enter the Externals marks scored in subject 3
98
Enter the Externals marks scored in subject 4
97
Enter the Externals marks scored in subject 5
96
ENTER DETAILS OF STUDENT 2
Enter Student's USN :
1BM19CS002
Enter Student's NAME :
```



```
Command Prompt
Enter the Externals marks scored in subject 5
96
ENTER DETAILS OF STUDENT 2
Enter Student's USN :
18M19CS002
Enter Student's NAME :
abc
Enter Student's SEMESTER :
2
Enter the Internals marks scored in subject 1
35
Enter the Internals marks scored in subject 2
36
Enter the Internals marks scored in subject 3
38
Enter the Internals marks scored in subject 4
39
Enter the Internals marks scored in subject 5
42
Enter the Externals marks scored in subject 1
70
Enter the Externals marks scored in subject 2
78
Enter the Externals marks scored in subject 3
79
Enter the Externals marks scored in subject 4
85
Enter the Externals marks scored in subject 5
91
Total marks of Student 1 in Subject 1 = 93.5
Total marks of Student 1 in Subject 2 = 95.0
Total marks of Student 1 in Subject 3 = 96.0
Total marks of Student 1 in Subject 4 = 93.5
Total marks of Student 1 in Subject 5 = 97.0
Total marks of Student 2 in Subject 1 = 70.0
Total marks of Student 2 in Subject 2 = 75.0
Total marks of Student 2 in Subject 3 = 77.5
Total marks of Student 2 in Subject 4 = 81.5
Total marks of Student 2 in Subject 5 = 87.5
C:\Users\sagar G\Dropbox\My PC (LAPTOP-DFE3M20A)\Documents\JAVA>
```