

WEEK 8

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;

public class Internals
{ public int internal[]=new int[5]; }
```

```
package cie;

public class Student {
    public String name;
    public int usn;
    public int sem;
}
```

```
package see;

import cie.Internals;

public class External extends Internals
{ public int external[]=new int[5]; }
```

```
import java.util.Scanner;

import cie.Student;

import see.External;

public class Marks {
```

```

public static void main(String[] args) {
    int n;
    Scanner sc=new Scanner(System.in);
    System.out.println("enter number of students");
    n=sc.nextInt();
    External student[]=new External[n];
    Student details[]=new Student[n];
    int final_marks[][]=new int[n][5];
    for(int i=0;i<n;i++)
    {
        student[i]=new External();
        details[i]=new Student();
        System.out.println("Enter Student usn and sem respectively");
        details[i].usn=sc.nextInt();
        details[i].sem=sc.nextInt();
        System.out.println("Enter Internal marks of 5 subject in respective
order");
        for(int j=0;j<5;j++)
        { student[i].internal[j]=sc.nextInt(); }
        System.out.println("Enter external marks of 5 subject in respective
order");
        for(int k=0;k<5;k++)
        { student[i].external[k]=sc.nextInt(); }
    }
    for(int i=0;i<n;i++)
    { for(int j=0;j<5;j++)
        final_marks[i][j]=student[i].internal[j]+(int)(student[i].external[j]/2);
    }
    for(int i=0;i<n;i++)
    {

```

```

        System.out.println("USN: "+details[i].usn);
        System.out.println("Sem: "+details[i].sem);
        System.out.println("Marks of the student is");
        for(int j=0;j<5;j++)
        { System.out.println(final_marks[i][j]);}
    }
}
}

```

```

enter number of students
2
Enter Student usn and sem respectively
220 3
Enter Internal marks of 5 subject in respective order
34
33
32
28
40
Enter external marks of 5 subject in respective order
45
67
87
98
78
Enter Student usn and sem respectively
221
3

```

Enter external marks of 5 subject in respective order

45

67

87

98

78

Enter Student usn and sem respectively

221

3

Enter Internal marks of 5 subject in respective order

30

28

34

40

43

Enter external marks of 5 subject in respective order

89

87

76

65

54

USN: 220

Sem: 3

Marks of the student is

56

66

75

77

79

USN: 221

Sem: 3

Marks of the student is

74

71

72

72

70