

## WEEK 5

```
1  package CIE;
2
3  public class Personal {
4      public String usn, name;
5      public int sem;
6
7      public Personal(String usn, String name, int sem) {
8          this.usn = usn;
9          this.name = name;
10         this.sem = sem;
11     }
12
13     public void display() {
14         System.out.println("USN: " + usn);
15         System.out.println("Name: " + name);
16         System.out.println("Semester: " + sem);
17     }
18 }
19
20 package CIE;
21
22 public class Internals {
23     public int[] internalMarks = new int[5];
24
25     public Internals(int[] marks) {
26         for (int i = 0; i < 5; i++)
27             internalMarks[i] = marks[i];
28     }
29 }
```

```

package SEE;

import CIE.Personal;

public class External extends Personal {
    public int[] seeMarks = new int[5];

    public External(String var1, String var2, int var3, int[] var4) {
        super(var1, var2, var3);

        for(int var5 = 0; var5 < 5; ++var5) {
            this.seeMarks[var5] = var4[var5];
        }
    }
}

```

```

import CIE.Internals;
import SEE.External;
import java.util.Scanner;

public class FinalMarks {
    public FinalMarks() {
    }

    public static void main(String[] var0) {
        Scanner var1 = new Scanner(System.in);
        System.out.print("Enter number of students: ");
        int var2 = var1.nextInt();
        Internals[] var3 = new Internals[var2];
        External[] var4 = new External[var2];

        int var5;
        for(var5 = 0; var5 < var2; ++var5) {
            System.out.println("\nEnter details of student " + (var5 + 1));
            System.out.print("USN: ");
            String var6 = var1.next();
            System.out.print("Name: ");
            String var7 = var1.next();
            System.out.print("Semester: ");
            int var8 = var1.nextInt();
            int[] var9 = new int[5];
            System.out.println("Enter 5 Internal Marks:");

```

```

        for(int var10 = 0; var10 < 5; ++var10) {
            var9[var10] = var1.nextInt();
        }

        int[] var14 = new int[5];
        System.out.println("Enter 5 SEE Marks:");

        for(int var11 = 0; var11 < 5; ++var11) {
            var14[var11] = var1.nextInt();
        }

        var3[var5] = new Internal(var9);
        var4[var5] = new External(var6, var7, var8, var14);
    }

    System.out.println("\n----- FINAL MARKS -----");

```

```

        for(var5 = 0; var5 < var2; ++var5) {
            var4[var5].display();
            System.out.println("Final Marks in 5 Courses:");

            for(int var12 = 0; var12 < 5; ++var12) {
                int var13 = var3[var5].internalMarks[var12] + var4[var5].seeMarks[var12] / 2;
                System.out.println("Course " + (var12 + 1) + ": " + var13);
            }

            System.out.println();
        }

        var1.close();
    }
}

```

Enter details of student 1

USN: 1bmcs24123

Name: shravan

Semester: 3

Enter 5 Internal Marks:

33

23

22

20

24

Enter 5 SEE Marks:

56

76

56

66

87

Enter details of student 2

USN: 1bmcs24121

Name: Vinod

Semester: 3

Enter 5 Internal Marks:

23

24

25

22

20

Enter 5 SEE Marks:

56

55

50

80

70

----- FINAL MARKS -----

USN: 1bmcs24123

Name: shravan

Semester: 3

Final Marks in 5 Courses:

Course 1: 61

Course 2: 61

Course 3: 50

Course 4: 53

Course 5: 67

USN: 1bmcs24121

Name: Vinod

Semester: 3

Final Marks in 5 Courses:

Course 1: 51

Course 2: 51

Course 3: 50

Course 4: 62

Course 5: 55