

WEEK 6

The screenshot shows a Java project structure on the left and the code for `Personal.java` on the right. The project tree includes files like `Internals.java`, `Personal.java`, and `FinalMarks.java`. The code for `Personal.java` defines a class with attributes `usn`, `name`, and `sem`, and methods `display` and a constructor.

```
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 }
```

The screenshot shows a Java project structure on the left and the code for `Internals.java` on the right. The project tree includes files like `Internals.java`, `Personal.java`, and `FinalMarks.java`. The code for `Internals.java` defines a class with an array of integers named `internalMarks` and a constructor that initializes it.

```
1 package CIE;
2
3 public class Internals {
4     public int[] internalMarks = new int[5];
5
6     public Internals(int[] marks) {
7         for (int i = 0; i < 5; i++)
8             internalMarks[i] = marks[i];
9     }
10
11 }
```

PROJECT

CIE

Internals.class

Internals.java 1

Personal.class

Personal.java

> SEE

FinalMarks.class

FinalMarks.java 1

J FinalMarks.java > Language Support for Java(TM) by Red Hat > FinalMarks > main(String[])

```
1 import CIE.*;
2 import SEE.*;
3 import java.util.*;
4
5 public class FinalMarks {
6     Run | Debug | Run main | Debug main
7     public static void main(String[] args) {
8         Scanner sc = new Scanner(System.in);
9
10        System.out.print(s: "Enter number of students: ");
11        int n = sc.nextInt();
12
13        Internals[] internal = new Internals[n];
14        External[] external = new External[n];
15
16        for (int i = 0; i < n; i++) {
17            System.out.println("\nEnter details of student " + (i + 1));
18
19            System.out.print(s: "USN: ");
20            String usn = sc.next();
21
22            System.out.print(s: "Name: ");
23            String name = sc.next();
```

PROJECT

CIE

Internals.class

Internals.java 1

Personal.class

Personal.java

> SEE

FinalMarks.class

FinalMarks.java 1

J FinalMarks.java > Language Support for Java(TM) by Red Hat > FinalMarks > main(String[])

```
5     public class FinalMarks {
6         public static void main(String[] args) {
25
26             System.out.print(s: "Semester: ");
27             int sem = sc.nextInt();
28
29             int[] internalMarks = new int[5];
30             System.out.println(x: "Enter 5 Internal Marks:");
31             for (int j = 0; j < 5; j++)
32                 internalMarks[j] = sc.nextInt();
33
34             int[] seeMarks = new int[5];
35             System.out.println(x: "Enter 5 SEE Marks:");
36             for (int j = 0; j < 5; j++)
37                 seeMarks[j] = sc.nextInt();
38
39             internal[i] = new Internals(internalMarks);
40             external[i] = new External(usn, name, sem, seeMarks);
41
42             System.out.println(x: "\n----- FINAL MARKS -----");
```

The screenshot shows a Java project structure in the left pane with files like CIE, Internals.class, Internals.java, Personal.class, Personal.java, SEE, FinalMarks.class, and FinalMarks.java. The right pane displays the source code for FinalMarks.java:

```
J FinalMarks.java > Language Support for Java(TM) by Red Hat > FinalMarks > main(String[])
  5  public class FinalMarks {
  6      public static void main(String[] args) {
42          for (int i = 0; i < n; i++) {
43              external[i].display();
44              System.out.println("Final Marks in 5 Courses:");
45
46              for (int j = 0; j < 5; j++) {
47                  int finalMark = internal[i].internalMarks[j] + (external[i].seeMarks[j] / 2);
48                  System.out.println("Course " + (j + 1) + ": " + finalMark);
49              }
50              System.out.println();
51          }
52
53          sc.close();
54      }
55  }
56 }
```

```
Enter details of student 1
USN: 123
Name: XYZ
Semester: 3
Enter 5 Internal Marks:
24
25
19
29
10
Enter 5 SEE Marks:
60
70
80
90
87

----- FINAL MARKS -----
USN: 123
Name: XYZ
Semester: 3
Final Marks in 5 Courses:
Course 1: 54
Course 2: 60
Course 3: 59
Course 4: 74
Course 5: 53
```