

```
package CIE;
```

```
public class Student {  
    public String usn;  
    public String name;  
    public int sem;  
  
    public Student(String usn, String name, int sem) {  
        this.usn = usn;  
        this.name = name;  
        this.sem = sem;  
    }  
}
```

```
package CIE;
```

```
public class Internals extends Student {  
    public int[] internalMarks;  
  
    public Internals(String usn, String name, int sem, int[] internalMarks) {  
        super(usn, name, sem);  
        this.internalMarks = internalMarks;  
    }  
}
```

```
package SEE;
```

```
import CIE.Student;
```

```
public class External extends Student {  
    public int[] seeMarks;  
  
    public External(String usn, String name, int sem, int[] seeMarks) {  
        super(usn, name, sem);  
        this.seeMarks = seeMarks;  
    }  
}  
  
import CIE.Internals;  
import SEE.External;  
import java.util.Scanner;
```

```
public class FinalMarks {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter number of students: ");
        int n = scanner.nextInt();

        Internals[] internalStudents = new Internals[n];
        External[] externalStudents = new External[n];

        for (int i = 0; i < n; i++) {
            System.out.println("\nEnter details for student " + (i + 1) + ":");

            System.out.print("USN: ");
            String usn = scanner.next();

            System.out.print("Name: ");
            String name = scanner.next();

            System.out.print("Semester: ");
            int sem = scanner.nextInt();

            int[] internalMarks = new int[5];
            System.out.println("Enter internal marks for 5 courses:");
            for (int j = 0; j < 5; j++) {
                internalMarks[j] = scanner.nextInt();
            }

            int[] seeMarks = new int[5];
            System.out.println("Enter SEE marks for 5 courses:");
            for (int j = 0; j < 5; j++) {
                seeMarks[j] = scanner.nextInt();
            }

            internalStudents[i] = new Internals(usn, name, sem, internalMarks);
            externalStudents[i] = new External(usn, name, sem, seeMarks);
        }
    }
}
```

```
System.out.print("USN: ");  
String usn = scanner.next();
```

```
System.out.print("Name: ");  
String name = scanner.next();
```

```
System.out.print("Semester: ");  
int sem = scanner.nextInt();
```

```
int[] internalMarks = new int[5];  
System.out.println("Enter internal marks for 5 courses:");  
for (int j = 0; j < 5; j++) {  
    internalMarks[j] = scanner.nextInt();  
}
```

```
int[] seeMarks = new int[5];  
System.out.println("Enter SEE marks for 5 courses:");  
for (int j = 0; j < 5; j++) {  
    seeMarks[j] = scanner.nextInt();  
}
```

```
internalStudents[i] = new Internals(usn, name, sem, internalMarks);  
externalStudents[i] = new External(usn, name, sem, seeMarks);
```

```
}
```

```
System.out.println("\\nFinal Marks of Students:");  
for (int i = 0; i < n; i++) {  
    System.out.println("\\nStudent " + (i + 1) + " - USN: " + internalStudents[i].usn);  
    for (int j = 0; j < 5; j++) {  
        int finalMark = (internalStudents[i].internalMarks[j] + (externalStudents[i].seeMarks[j]) / 2);  
        System.out.println("Course " + (j + 1) + " Final Mark: " + finalMark);  
    }  
}
```

```
scanner.close();
```

```
}
```

```
}
```

Enter details for student 1:

USN: 1bm23cs041

Name: annas

Semester: 3

Enter internal marks for 5 courses:

31

32

33

34

35

Enter SEE marks for 5 courses:

71

72

73

74

75

Final Marks of Students:

Student 1 - USN: 1bm23cs041

Course 1 Final Mark: 66

Course 2 Final Mark: 68

Course 3 Final Mark: 69

Course 4 Final Mark: 71

Course 5 Final Mark: 72

