

```
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;  
    }  
  
    public void display() {  
        System.out.println("USN: " + usn);  
        System.out.println("Name: " + name);  
        System.out.println("Semester: " + sem);  
    }  
}
```

```
package CIE;
```

```
public class Internals {  
    public int internalMarks[] = new int[5];  
  
    public Internals(int m1, int m2, int m3, int m4, int m5) {  
        internalMarks[0] = m1;  
        internalMarks[1] = m2;  
        internalMarks[2] = m3;  
        internalMarks[3] = m4;  
        internalMarks[4] = m5;  
    }  
}
```

```
package SEE;
```

```
import CIE.Student;
```

```
public class External extends Student {  
    public int seeMarks[] = new int[5];  
}
```

```

public External(String usn, String name, int sem,
                int s1, int s2, int s3, int s4, int s5) {

    super(usn, name, sem);

    seeMarks[0] = s1;
    seeMarks[1] = s2;
    seeMarks[2] = s3;
    seeMarks[3] = s4;
    seeMarks[4] = s5;
}
}

```

```

import java.util.*;
import CIE.*;
import SEE.*;

```

```

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

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

        Internals[] internal = new Internals[n];
        External[] external = new External[n];

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

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

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

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

            System.out.println("Enter 5 internal marks:");
            int im[] = new int[5];
            for (int j = 0; j < 5; j++)

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```

        im[j] = sc.nextInt();

        System.out.println("Enter 5 SEE marks:");
        int sm[] = new int[5];
        for (int j = 0; j < 5; j++)
            sm[j] = sc.nextInt();

        internal[i] = new Internals(im[0], im[1], im[2], im[3], im[4]);
        external[i] = new External(usn, name, sem, sm[0], sm[1], sm[2], sm[3], sm[4]);
    }

    System.out.println("\nFINAL RESULTS");

    for (int i = 0; i < n; i++) {
        System.out.println("\nStudent " + (i + 1) + ":");
        external[i].display();

        for (int j = 0; j < 5; j++) {
            int finalMarks = internal[i].internalMarks[j] + (external[i].seeMarks[j] / 2);
            System.out.println("Course " + (j + 1) + " Final Marks: " + finalMarks);
        }
    }

    sc.close();
}
}

```

output:

Enter number of students: 1

Enter details of student 1

USN: 1wa24cs206

Name: koushik

Semester: 03

Enter 5 internal marks:

49

49

49

48

45

Enter 5 SEE marks:

45

46
43
42
41

FINAL RESULTS

Student 1:

USN: 1wa24cs206

Name: koushik

Semester: 3

Course 1 Final Marks: 71

Course 2 Final Marks: 72

Course 3 Final Marks: 70

Course 4 Final Marks: 69

Course 5 Final Marks: 65

Process finished with exit code 0