Program - 6

```java
package CIE;

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

    public Student () {
        name = usn = null;
        sem = 0;
    }

    @Override
    public String toString () {
        return String.format ("Name : " + name
        + "\n USN : " + usn + "in Semester : "
        + sem + "\n");
    }
}
```

```java
package CIE;

public class Internals {
    private int marks[];
    public Internals (int arr[]) {
        marks = new int [5];
        for (int i=0; i<5; i++)
            marks[i] = arr[i];

    }
    public int getMark (int i) {
        return marks[i];
    }
}


package SEE;
import SEE.Student;
public class External extends Student {
    private int marks[];
    public External (int arr[]) {
        marks = new int [5];
        for (int i=0; i<5; i++)
            marks[i] = arr[i];

    }
    public int getMark (int i) {
        return marks[i];
    }
}
```
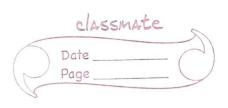
```java
import java.util.Scanner;
import CIE.*;
import SEE.*;


public class Main {

    public static void main(String args[]){

        Scanner in = new Scanner(System.in);
        int  sem, n, i, j;
        String  name, usn;
        System.out.print("Enter number of
        students : ");
        n = in.nextInt();
        int  marks[][] = new int[n][5];
        int  arr[] = new int[5];
        Student  stu[] = new Student[n];
        Internals internal[] = new Internals[n];
        External  ext[] = new External[n];
        for(i =0; i<n; i++){

            System.out.println("----- Student "+(i+1)+
            " ----- \n");
            System.out.print("Enter name : ");
            name = in.nextInt();
            name = in.next();
            System.out.print("Enter USN : ");
            usn = in.next();
```

```java
System.out.print("Enter semester : ");
sem = in.nextInt();
stu[i] = new Student(name, usn, sem);
for (j = 0; j < 5; j++){
    System.out.print("Enter CIE marks
    in course "+ (j+1)+" : ");
    arr[j] = in.nextInt();
}
System.out.println("\n\n");
internal[i] = new Internals(arr);
for (j=0; j<5; j++){
    System.out.print("Enter SEE marks
    in course "+(j+1) +" : ");
    arr[j] = in.nextInt();
}
ext[i] = new External(arr);
}
in.close();
for (i=0; i<n; i++)
    for (j=0; j<5; j++)
        marks[i][j] = internal.getMark(j)
    + ((ext[i].getMark(j))/2);
System.out.println("------STUDENT
DETAILS ----- \n\n");
for (i=0; i<n; i++){
    System.out.println("------ Student
    "+(i+1)+" ------ \n\n");
    System.out.println(stu[i].toString
    ());
```

```java
for (j=0; j<5; j++){
    System.out.println("Marks scored
in    course "+(j+1)+" : " + marks[i][j];
}
    System.out.println("----\n\n");
}
}
}
```