Wk7extr1 - Notepad

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```
import java.util.Scanner;
class Student{
    String USN,name;
    int sem;
    Scanner sc = new Scanner(System.in);
    void setStuDetails(){
        System.out.println("Enter USN of Student: ");
        this.USN = sc.next();
        System.out.println("Enter Name of Student: ");
        this.name = sc.next();
        System.out.println("Enter Semester of Student: ");
        this.sem = sc.nextInt();
    }

    void getStuDetails(){
        System.out.println("USN: " + this.USN);
        System.out.println("Name: " + this.name);
        System.out.println("Semester: " + this.sem);
    }
}

class Test extends Student{
    double cieMarks[] = new double[5];
    int credits[] = new int[5];
    int totalCredits = 0;
    void setCieDetails(){
        for(int i=0;i<cieMarks.length;i++){
            System.out.println("Enter CIE marks(Out of 50) in course" + (i+1) + ": ");
            cieMarks[i] = sc.nextDouble();
            System.out.println("Enter credits of course" + (i+1) + ": ");
            credits[i] = sc.nextInt();
            totalCredits += credits[i];
        }
    }
}

class Exam extends Test{
    double seeMarks[] = new double[5];
    double totalMarks[] = new double[5];
    int totCredits = super.totalCredits;
    void setSeeDetails(){
        for(int i=0;i<cieMarks.length;i++){
```

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```
    int totCredits = super.totalCredits;
    void setSeeDetails(){
        for(int i=0;i<cieMarks.length;i++){
            System.out.println("Enter SEE marks(100) in course" + (i+1) + ": ");
            seeMarks[i] = sc.nextDouble()/2;
        }
        calcTotalMarks();
    }
    void calcTotalMarks(){
        for(int i=0;i<5;i++){
            totalMarks[i] = cieMarks[i] + seeMarks[i];
        }
    }
}

class Result extends Exam{
    char grades[] = new char[5];
    double sgpa = 0;
    int points[] = new int[5];
    void calcSGPA(){
        for(int i = 0;i<5;i++){
            if(totalMarks[i] > 100){
                System.out.println("Error: Marks are above 100");
                return;
            }else if(totalMarks[i] >= 90){
                points[i] = 10;
            }else if(totalMarks[i] >= 80){
                points[i] = 9;
            }else if(totalMarks[i] >= 70){
                points[i] = 8;
            }else if(totalMarks[i] >= 60){
                points[i] = 7;
            }else if(totalMarks[i] >= 50){
                points[i] = 5;
            }else if(totalMarks[i] >= 40){
                points[i] = 4;
            }else{
                points[i] = 0;
            }

            sgpa += (points[i]*credits[i]);
        }
```

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```
            }else{
                points[i] = 0;
            }

            sgpa += (points[i]*credits[i]);
        }
    }

    void calcGrade(){
        for(int i = 0;i<5;i++){
            if(totalMarks[i] > 100){
                System.out.println("Error: Marks are above 100");
                return;
            }else if(totalMarks[i] >= 90){
                grades[i] = 'S';
            }else if(totalMarks[i] >= 80){
                grades[i] = 'A';
            }else if(totalMarks[i] >= 70){
                grades[i] = 'B';
            }else if(totalMarks[i] >= 60){
                grades[i] = 'C';
            }else if(totalMarks[i] >= 50){
                grades[i] = 'D';
            }else if(totalMarks[i] >= 40){
                grades[i] = 'E';
            }else{
                grades[i] = 'F';
            }
        }
    }

        void getSGPA(){
            System.out.format("SGPA is %.2f\n",(sgpa/totalCredits));
        }

        void getGrades(){
            for(int i=0;i<5;i++)
                System.out.println("Subject "+(i+1)+": " + grades[i]);
        }
}

public class Wk7extr1{
<
```

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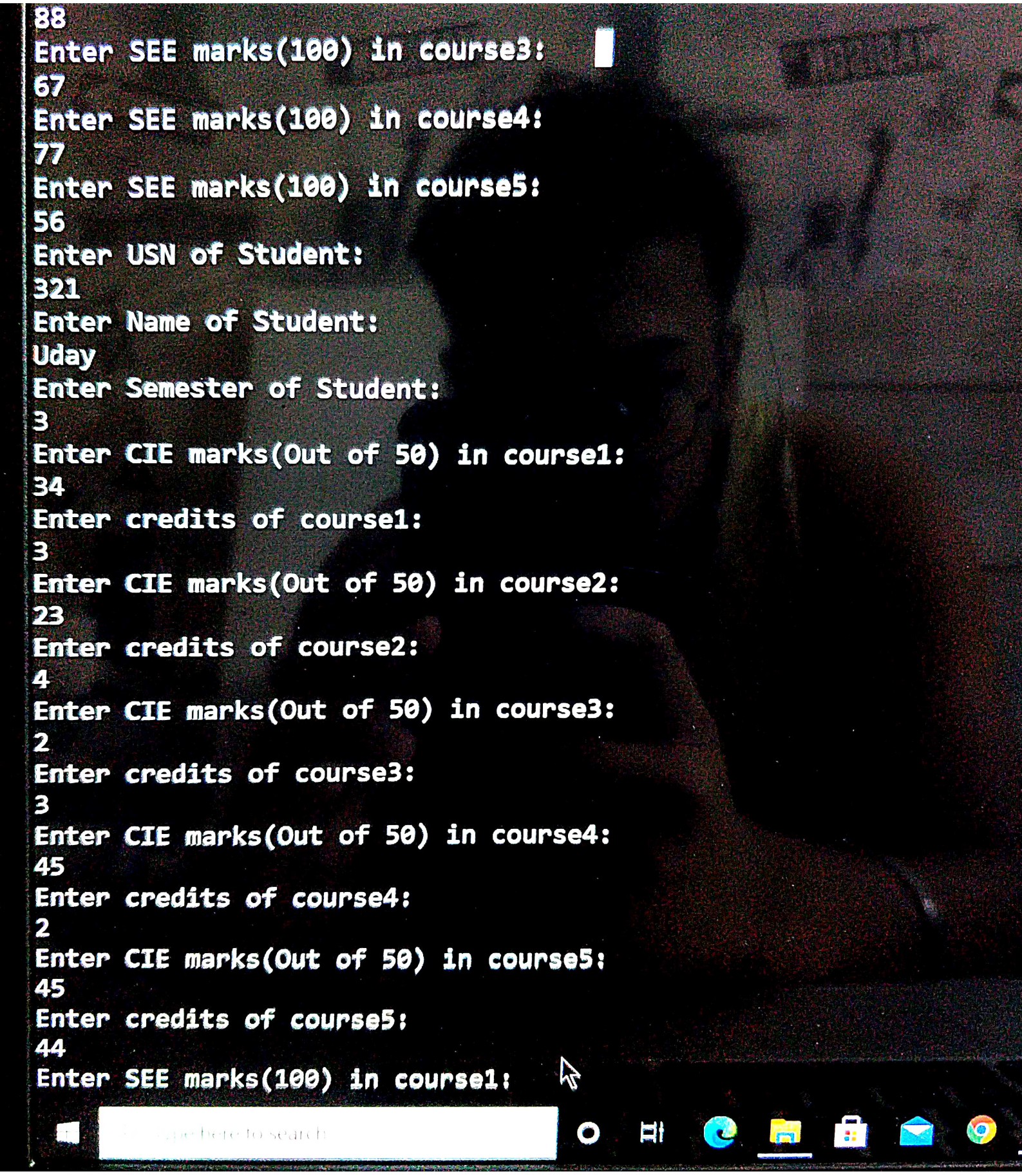
```
            }else if(totalMarks[i] >= 50){
                grades[i] = 'D';
            }else if(totalMarks[i] >= 40){
                grades[i] = 'E';
            }else{
                grades[i] = 'F';
            }
        }
    }

        void getSGPA(){
            System.out.format("SGPA is %.2f\n",(sgpa/totalCredits));
        }

        void getGrades(){
            for(int i=0;i<5;i++)
                System.out.println("Subject "+(i+1)+": " + grades[i]);
        }
}

public class Wk7extr1{
    public static void main(String[] args) {
        int n = 0;
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number of students");
        n = sc.nextInt();
        Result results[] = new Result[n];
        for(int i=0;i<n;i++){
            results[i] = new Result();
            results[i].setStuDetails();
            results[i].setCieDetails();
            results[i].setSeeDetails();
            results[i].calcSGPA();
            results[i].calcGrade();
        }
        for(int i=0;i<n;i++){
            results[i].getStuDetails();
            results[i].getSGPA();
            results[i].getGrades();
        }
    }
}
```

```
C:\WINDOWS\system32\cmd.exe
C:\Users\AKSHAY RASTOGI\Desktop\java prog>java Wk7extr1
Enter number of students
2
Enter USN of Student:
123
Enter Name of Student:
Ram
Enter Semester of Student:
3
Enter CIE marks(Out of 50) in course1:
34
Enter credits of course1:
2
Enter CIE marks(Out of 50) in course2:
35
Enter credits of course2:
3
Enter CIE marks(Out of 50) in course3:
45
Enter credits of course3:
3
Enter CIE marks(Out of 50) in course4:
44
Enter credits of course4:
2
Enter CIE marks(Out of 50) in course5:
34
Enter credits of course5:
3
Enter SEE marks(100) in course1:
45
Enter SEE marks(100) in course2:
88
Enter SEE marks(100) in course3:
```


88
Enter SEE marks(100) in course3:
67
Enter SEE marks(100) in course4:
77
Enter SEE marks(100) in course5:
56
Enter USN of Student:
321
Enter Name of Student:
Uday
Enter Semester of Student:
3
Enter CIE marks(Out of 50) in course1:
34
Enter credits of course1:
3
Enter CIE marks(Out of 50) in course2:
23
Enter credits of course2:
4
Enter CIE marks(Out of 50) in course3:
2
Enter credits of course3:
3
Enter CIE marks(Out of 50) in course4:
45
Enter credits of course4:
2
Enter CIE marks(Out of 50) in course5:
45
Enter credits of course5:
44
Enter SEE marks(100) in course1:

```
Enter credits of course5:
44
Enter SEE marks(100) in course1:
89
Enter SEE marks(100) in course2:
89
Enter SEE marks(100) in course3:
68
Enter SEE marks(100) in course4:
56
Enter SEE marks(100) in course5:
8
USN: 123
Name: Ram
Semester: 3
SGPA is 7.46
Subject 1: D
Subject 2: B
Subject 3: B
Subject 4: A
Subject 5: C
USN: 321
Name: Uday
Semester: 3
SGPA is 4.36
Subject 1: B
Subject 2: C
Subject 3: F
Subject 4: B
Subject 5: E

C:\Users\AKSHAY RASTOGI\Desktop\java prog>
```

Week 7 (Extra Programs)

1)
```
import java.util.Scanner;
class Student {
String USN, name;
int sem;
Scanner sc = new Scanner(System.in);
void setStuDetails() {
System.out.println("Enter the USN of student :");
this.USN = sc.next();
System.out.println("Enter name of student :");
this.name = sc.next();
System.out.println("Enter Semester of student :");
this.sem = sc.nextInt();
}
void getStuDetails() {
System.out.println("USN :" + this.USN);
System.out.println("Name :" + this.name);
System.out.println("Semester :" + this.sem);
}
}
```

```
class Test extends Student {
double cieMarks[] = new double[5];
int credits[] = new int[5];
int totalCredits = 0;
void setCieDetails() {
for(int i=0; i<cieMarks.length; i++) {
System.out.println("Enter CIE marks (out of 50) in course"+(i+1)+":");
cieMarks[i] = sc.nextDouble();
System.out.println("Enter credits of course"+(i+1)+":");
Credits[i] = sc.nextInt();
totalCredits += credits[i];
}
}
}

Class Exam extends Test {
double seeMarks[] = new double[5];
double totalMarks[] = new double[5];
int totCredits = super.totalCredits;
void setSeeDetails() {
for(int i=0; i<cieMarks.length; i++) {
System.out.println("Enter SEE marks (out of 100) in course
+(i+1)+":");
seeMarks[i] = sc.nextDouble()/2
}
Calc_TotalMarks() {
for(int i=0; i<5; i++) {
totalMarks[i] = cieMarks[i] + seeMarks[i];
}
}
}
```

```
class Result extends Exam {
char grades [] = new char [5];
double sgpa = 0;
int points [] = new int [5];
void calcSGPA () {
for (int i = 0; i < 5; i++) {
if (totalMarks [i] > 100) {
System.out.println ("Error: Marks are above 100");
return;
} else if (totalMarks[i] >= 90) {
points [i] = 10;
} else if (totalMarks [i] >= 80) {
points[i] = 9;
} else if (totalMarks [i] >= 70) {
points[i] = 8;
} else if (totalMarks [i] >= 60) {
points[i] = 7;
} else if (totalMarks [i] >= 50) {
points[i] = 5;
} else if (totalMarks [i] >= 40) {
points [i] = 4;
} else {
points [i] = 0;
}
sgpa += (points [i] * credits [i]);
}
}

void calcGrade () {
for (i = 0; i < 5; i++) {
if (totalMarks[i] > 100) {
System.out.println ("Error: Marks are above 100");
```

```
return ;
}else if (total_Marks[i] >=90){
grades[i] = "S" ;
}else if (total_Marks[i] >=80){
grades[i] = "A" ;
}else if (total_Marks[i] >=70){
grades[i] = "B" ;
}else if (total_Marks[i] >=60){
grades[i] = "C" ;
}else if (total_Marks[i] >=50){
grades[i] = "D" ;
}else if (total_Marks[i] >=40){
grades[i] = "E" ;
}else{
grades[i] = 'f' ;
}
}
}
void getSGPA(){
System.out.format("SGPA is %0.2f\n",(sgpa/totalCredits));
}
void getGrades(){
for(int i=0;i<5;i++){
System.out.println("subject"+(i+1)+": "+grades[i]);
}
}

public class WikiText1 {
public static void main(String[] args){
int n = 0 ;
Scanner sc = new Scanner(System.in);
System.out.println("Enter the number of students:");
```

```
n = sc.nextInt();
Result results[] = new Result[n];
for (i=0; i<n; i++){
results[i] = new Result();
results[i].setStuDetails();
results[i].SetCieDetails();
results[i].Set_SeeDetails();
results[i].calcSGPA();
results[i].calcGrade();
}
for(int i=0; i<n ; i++ ) {
results[i].getStuDetails();
results[i].getSGPA();
results[i].getGrades();
}
}
}
```