

LAB - 2 :

Develop a Java program to create a class Student with numbers usn, name, an array credits and an array marks. Include methods to accept details and display SCRA.

```
import java.util.Scanner;
```

```
class Subject
```

```
{
```

```
    int subjectMarks;
```

```
    int credits;
```

```
    String grade;
```

```
}
```

```
class Student
```

```
{
```

```
    String name;
```

```
    String usn;
```

```
    double SCRA;
```

```
    Scanner s;
```

~~```
 Subject subject[];
```~~~~```
    Student()
```~~

```
{
```

```
    int i;
```

```
    subject = new Subject[9];
```

```
    for(i=0; i<9; i++)
```

```
{
```

```
    Subject[i] = new Subject();
```

```
}
```

```
    s = new Scanner(System.in);
```

```
}
```

```
void getStudentDetails()
{
    System.out.println("Enter your name : ");
    name = s.nextLine();
    System.out.println("Enter your USN : ");
    usn = s.nextLine();
}
```

```
void getMarks()
{
    int i;
    for(i=0; i<8; i++)
    {
        System.out.println("Enter the marks and credits for course " + (i+1) + ": ");
        System.out.print("marks : ");
        int marks = s.nextInt();
        System.out.print("credits : ");
        int credits = s.nextInt();

        if(marks >= 90 && marks <= 100)
        {
            subject[i].grade = "O";
        }
        else if(marks >= 80 && marks < 90)
        {
            subject[i].grade = "A+";
        }
        else if(marks >= 70 && marks < 80)
        {
            subject[i].grade = "A";
        }
    }
}
```

```
else if (marks >= 60 && marks < 70)
{
    subject[i].grade = "B+";
}

else if (marks >= 50 && marks < 60)
{
    subject[i].grade = "B";
}

else if (marks >= 40 && marks < 50)
{
    subject[i].grade = "C";
}

else if (marks >= 0 && marks < 40)
{
    subject[i].grade = "F";
}

void computegpa()
{
    int i;
    double sgpa;
    double totalcredits = 0;
    double totalgradepoints = 0;
    for (i = 0; i < 8; i++)
    {
        totalcredits += subject[i].credits;
        switch(subject[i].grade)
        {
            case "O": totalgradepoints += 10 * student[i].credits;
            break;
            case "A+": totalgradepoints += 9 * student[i].credits;
            break;
        }
    }
}
```

case "A": totalgradepoints += 8 * student[i].credits;

break;

case "B+": totalgradepoints += 7 * student[i].credits;

break;

case "B": totalgradepoints += 6 * student[i].credits;

break;

case "C": totalgradepoints += 5 * student[i].credits;

break;

case "F": totalgradepoints += 4 * student[i].credits;

break;

}

sgpa = totalgradepoints / total credits;

System.out.println("name : " + name);

System.out.println("USN : " + usn);

System.out.println("SGPA : " + sgpa);

}

class sgpa

{

public static void main(String[] args)

{

Student s1 = new Student();

s1.getStudentDetails();

s1.getMark();

s1.computeSGPA();

}

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OUTPUT:

name: Raghavendra R
USN : 1BME22ES274

Enter marks for course 1:

marks: 90

credits: 4

Enter marks and credits for course 2:

marks: 91

credits: 4

Enter marks and credits for course 3:

marks: 99

credits: 3

Enter marks and credits for course 4:

marks: 94

credits: 3

Enter marks and credits for course 5:

marks: 95

credits: 2

Enter marks and credits for course 6:

marks: 96

credits: 01

Enter marks and credits for course 7:

marks: 97

credits: 01

The GPA is: 10.0000

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