

17/12/23

Calculating the SGPA of a student

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

```
class Subject {
```

```
    int subjectMarks;
```

```
    int credits;
```

```
    int grade;
```

```
}
```

```
class Student {
```

```
    String name;
```

```
    String usn;
```

```
    double SGPA;
```

```
    Scanner s;
```

```
    Subject[] subjects;
```

```
    Student () {
```

```
        int i;
```

```
        subject = new Subject [8];
```

```
        for (i=0; i < 8; i++)
```

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

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

```
    }
```

```
    void getMarks () {
```

```
        for (int i=0; i < 8; i++) {
```

```
            System.out.println ("Enter details for  
subject " + (i+1) + " : ");
```

```
            System.out.println ("Enter Marks : ");
```

```
            subjects[i].credits = s.nextInt();
```

```
            if (subjects[i].subjectMarks >= 90) {
```

```
                subjects[i].grade = 10;
```

```
            } else if (subjects[i].subjectMarks >= 80) {
```

```
                subjects[i].grade = 9;
```



```

else if (subject[i].subjectMarks >= 70) {
    subject[i].grade = 8; }
else if (subject[i].subjectMarks >= 60) {
    subject[i].grade = 7; }
else if (subject[i].subjectMarks >= 50) {
    subject[i].grade = 5; }
else {
    subject[i].grade = 0; }

```

}

```

void compute SGPA() {

```

```

    double totalCredits = 0;

```

```

    double weightedSum = 0;

```

```

    for (int i = 0; i < 8; i++) {

```

```

        totalCredits += subject[i].credits;

```

```

        weightedSum += subject[i].grade *
            subject[i].credits;

```

```

    }

```

```

void displayDetails()
{

```

```

    System.out.println("\n student details:");

```

```

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

```

```

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

```

```

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

```

}

}


```
public class StudentMain
```

```
{
```

```
    public static void main (String[] args) {
```

```
        Student s1 = new Student();
```

```
        s1.getStudentDetails();
```

```
        s1.getMarks();
```

```
        s1.computeSGPA();
```

```
        s1.displayDetails();
```

```
    }
```

```
}
```

→ output

Enter Student Name: Parvina

Enter USN: 16M22CS209

→ Enter details for Subject 1

Enter Marks: 93

Enter Credits: 4

→ Enter details for Subject 2

Enter Marks: 96

Enter Credits: 4

→ Enter details for Subject 3

Enter Marks: 96

Enter Credits: 3

→ Enter details for Subject 4

Enter Marks: 87

Enter Credits: 3

→ Enter details for Subject 5

Enter Marks: 87

Enter Credits: 3

→ enter details for Subject 6:

enter Marks : 90

enter Credits : 1

→ Enter details for Subject 7:

enter Marks : 95

enter Credits : 1

→ enter details for Subject 8:

enter Marks : 94

enter Credits : 1

~~Student details :~~

~~Name: Priyanka~~

~~USN: 15H22C1209~~

~~SGPA: 9.7~~

~~19/12/23~~