

Q. Develop a Java prog. to create a class student with member var, name, an array credits and an array marks. Include methods to accept and display details and a method to calculate SGPA of a student.

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

```
Class Subject {
```

```
    int subject Marks;
```

```
    int credits;
```

```
    int grade;
```

```
Class Student {
```

```
    String name;
```

```
    String user;
```

```
    double SGPA;
```

```
    Scanner s;
```

```
    Subject[] subjects;
```

Student() {

int i;

subjects = new Subject[8];

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

subject[i] = new Subject();

s = new Scanner(System.in);

}

void getStudentDetails() {

System.out.print(s: "Enter student
name: ");

name = s.nextLine();

System.out.print(s: "Enter student
ID: ");

ID = s.nextLine();

}

void getMarks() {

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

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

System.out.println(s: "Enter
marks: ");

subjects[i].subjectMarks = s.nextInt();

System.out.print(s: "Enter credits: ");

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

If (subjects[i].subjectMarks >= 90)

~~subjects[i].grade~~

subjects[i].grade = 10; }

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

subjects[i].grade = 9; }

else if (subjects[i].subjectMarks >= 70)

subjects[i].grade = 8; }

else if (subjects[i].subjectMarks >= 60)

subjects[i].grade = 7; }


```
else if (subject[i].subjectMarks >= 50) {  
    subjects[i].grade = 6; }  
}
```

```
else if (subject[i].subjectMarks >= 40) {  
    subjects[i].grade = 5; }  
}
```

```
else {  
    subjects[i].grade = 0; }  
}
```

```
}  
}
```

```
void computeSGPA() {
```

```
    double totalCredits = 0
```

```
    double weightedSum = 0
```

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

```
        totalCredits += subjects[i].credits;
```

```
        weightedSum += subjects[i].grade *  
            subjects[i].credits; }
```

```
    SGPA = weightedSum / totalCredits;
```

```
}
```

```
void displayResult() {
```

```
    System.out.println("Student Details:");
```

```
    ("Name: " + name);
```

```
    ("VEN: " + ven);
```

```
    ("SGPA: " + SGPA);
```

```

Public class Main {
    public static void main (String[] args) {
        Student s1 = new Student();
        s1.getStudentDetails();
        s1.getMarks();
        s1.computeSGPA();
        s1.displayResults();
    }
}

```

Output:-

Enter student name: Sawal

Enter student ID: 1BM22CS247

Enter details for subjects

Enter marks: 81

Enter credits: 4

:

: 92

: 4

: 85

: 3

: 85

: 3

: 92

: 3

: 95

: 1

: 95

: 1

: 86

: 1

Student Details:

Name : Sarvesh

USN: 1BM22C52M

SGPA: 9.45

Qua
19-12-13