

Develop a Java program to create a class Student with member USN, 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 Student {

void display (String name, String usn)

{

System.out.println("USN of Student" + usn);

System.out.println("Name of Student" + name);

void calculateSgpa (double[] marks, double[] credits, in number)

{

double gradePoints[] = new double [number];

double sgpa, sum = 0, tnum = 0;

for (int i = 0; i < number; i++)

{

if (marks[i] >= 90)

gradePoints[i] = 10;

else if (marks[i] >= 80)

gradePoints[i] = 9;

else if (marks[i] >= 70)

gradePoints[i] = 8;

else if (marks[i] >= 60)

gradePoints[i] = 7;

else if (marks[i] >= 50)

gradePoints[i] = 6;

else if (marks[i] >= 40)

gradePoints[i] = 4;

else

gradePoints[i] = 0;

} for (int i = 0; i < number; i++)

{

sum += credits[i] \* gradePoints[i];

}

for (int i = 0; i < number; i++)

```

    }
    tnum += credits[i];
    }
    sgpa = sum / tnum;
    System.out.println("Sgpa is " + sgpa);
}

class Sgpa {
    public static void main (String args[]) {
        Scanner S = new Scanner(System.in);
        System.out.println("Enter name and usn of student ");
        String name = S.next();
        String usn = S.next();
        Student S1 = new Student();
        System.out.println("Enter the number of courses");
        int numbers = S.nextInt();
        double credits[] = new double [numbers];
        double marks[] = new double [numbers];
        for (int i = 0; i < numbers; i++)
        {
            System.out.print("Credit of subject " + (i+1) + " : ");
            credits[i] = S.nextDouble();
            System.out.print("Marks of Subject " + (i+1) + " : ");
            marks[i] = S.nextDouble();
        }
        S1.display (name, usn);
        S1.calculateSgpa (marks, credits, numbers);
    }
}

```

Output :- Enter your name : Dhruv M

Enter USN : IBM21CS056

Enter the marks of each subject: 98, 88, 78, 67, 98

Enter no of credits :- 4, 3, 2, 1, 4

Name :- Dhruv M USN : IBM21CS056

Marks of Subject 1 : 98

```
Users\hp>cd C:\Users\hp\OneDrive\Desktop\1bm21cs056
```

```
Users\hp\OneDrive\Desktop\1bm21cs056>javac sgpa.java
```

```
Users\hp\OneDrive\Desktop\1bm21cs056>java sgpa
```

```
Enter name and usn of student
```

```
dhruva ■
```

```
Enter the number of courses
```

```
Credits of subject 1 : 4
```

```
Marks of subject 1 : 40
```

```
Credits of subject 2 : 3
```

```
Marks of subject 2 : 90
```

```
Credits of subject 3 : 2
```

```
Marks of subject 3 : 85
```

```
Credits of subject 4 : 1
```

```
Marks of subject 4 : 70
```

```
Credits of subject 5 : 4
```

```
Marks of subject 5 : 100
```

```
Average of the student ■
```

```
Average of the student dhruva
```

```
A is 8.0
```

```
Users\hp\OneDrive\Desktop\1bm21cs056>■
```