

Java Program for Student details and SGPA

Code:

```
import java.util.Scanner;

class Student {
    Scanner sc = new Scanner(System.in);
    String USN, Name;
    int credits[] = new int[5];
    float marks[] = new float[5];
    int points[] = new int[5];
    float SGPA;
    int totalCredits = 0;

    void input() {
        System.out.println("Enter Student's USN: ");
        USN = sc.nextLine();
        System.out.println("Enter Student's Name: ");
        Name = sc.nextLine();
        for (int i = 0; i < 5; i++) {
            System.out.println("Enter Credits for Subject " + (i + 1) + ": ");
            credits[i] = sc.nextInt();
            totalCredits += credits[i];
            System.out.println("Enter Marks for Subject " + (i + 1) + ": ");
            marks[i] = sc.nextFloat();
        }
    }
}
```

```
void gpa() {  
  
    for (int i = 0; i < 5; i++) {  
        if (marks[i] > 100) {  
            System.out.println("Error: Marks are above 100");  
            return;  
        } else if (marks[i] >= 90) {  
            points[i] = 10;  
        } else if (marks[i] >= 80) {  
            points[i] = 9;  
        } else if (marks[i] >= 70) {  
            points[i] = 8;  
        } else if (marks[i] >= 60) {  
            points[i] = 7;  
        } else if (marks[i] >= 50) {  
            points[i] = 5;  
        } else if (marks[i] >= 40) {  
            points[i] = 4;  
        } else {  
            points[i] = 0;  
        }  
  
        SGPA += (points[i] * credits[i]);  
    }  
}
```

```
void display() {  
    System.out.println("Student's USN: " + USN);  
    System.out.println("Student's Name: " + Name);  
    for (int i = 0; i < 5; i++) {  
        System.out.println("Subject " + (i + 1) + " - Credits: " + credits[i] + " - Marks: " + marks[i]);  
    }  
    System.out.println("SGPA of " + Name + " is: " + (float) (SGPA / totalCredits));  
}  
  
}  
  
class st {  
    public static void main(String args[]) {  
        Student s1 = new Student();  
        s1.input();  
        s1.gpa();  
        s1.display();  
    }  
}
```

Output:

```
PS E:\java> javac student.java
PS E:\java> java st
Enter Student's USN:
1BM19CS211
Enter Student's Name:
Shashank
Enter Credits for Subject 1:
5
Enter Marks for Subject 1:
85
Enter Credits for Subject 2:
4
Enter Marks for Subject 2:
90
Enter Credits for Subject 3:
4
Enter Marks for Subject 3:
90
Enter Credits for Subject 4:
3
Enter Marks for Subject 4:
85
Enter Credits for Subject 5:
3
Enter Marks for Subject 5:
75
Student's USN: 1BM19CS211
Student's Name: Shashank
Subject 1 - Credits: 5 - Marks: 85.0
Subject 2 - Credits: 4 - Marks: 90.0
Subject 3 - Credits: 4 - Marks: 90.0
Subject 4 - Credits: 3 - Marks: 85.0
Subject 5 - Credits: 3 - Marks: 75.0
SGPA of Shashank is: 9.263158
PS E:\java> █
```