

```

1  import java.util.Scanner;
2
3  class Student
4  {
5      private String usn,name;
6      private int[] credits = new int[5];
7      private int[] marks = new int[5];
8      private int[] grade = new int[5];
9
10     //Accepts information from the user
11     void accept()
12     {
13         Scanner sc = new Scanner(System.in);
14         System.out.print("Enter your Name: ");
15         this.name = sc.nextLine();
16
17         System.out.print("Enter your USN: ");
18         this.usn = sc.next();
19
20         for(int i=0;i<credits.length;i++)
21         {
22             System.out.print("Enter marks in Subject " + (i+1) + ": ");
23             this.marks[i] = sc.nextInt();
24
25             System.out.print("Enter credits of Subject " + (i+1) + ": ");
26             this.credits[i] = sc.nextInt();
27
28             System.out.println();
29         }
30     }
31
32     //displays information entered by the user
33     void display()
34     {
35         System.out.println("Here are your details:");
36         System.out.println("USN: " + usn);
37         System.out.println("Name: " + name);
38         for(int i=0;i<credits.length;i++)
39         {
40             System.out.println("SUBJECT " + (i+1) + " CREDITS: " + credits[i] + " MARKS: " + marks[i]);
41         }
42     }
43
44     //To calculate grade point of each of the marks entered by user
45     void gradeCalc()
46     {
47         for(int i=0;i<marks.length;i++)
48         {
49             if(marks[i] >= 90)
50                 grade[i] = 10;
51             else if(marks[i] >= 80 && marks[i] < 90)
52                 grade[i] = 9;
53             else if(marks[i] >= 70 && marks[i] < 80)
54                 grade[i] = 8;
55             else if(marks[i] >= 60 && marks[i] < 70)
56                 grade[i] = 7;
57         }
58     }

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59         else if(marks[i] >= 50 && marks[i] < 60)
60             grade[i] = 6;
61         else if(marks[i] >= 40 && marks[i] < 50)
62             grade[i] = 4;
63         else
64             grade[i] = 0;
65
66     }
67 }
68
69 //To calculate sgpa, returns a double value
70 double sgpa()
71 {
72     double sum = 0, totalCred = 0;
73     gradeCalc();
74
75     for(int i=0; i<credits.length; i++)
76     {
77         sum+= grade[i]*credits[i];
78         totalCred+= credits[i];
79     }
80
81     return sum/totalCred;
82 }
83
84
85 //main function
86 public static void main(String args[])
87 {
88     Student std = new Student();
89
90     std.accept();
91     std.display();
92     double gradePt = std.sgpa();
93     System.out.println("Your sgpa is: " + gradePt);
94 }

```

```
C:\Users\Madhusudhan\Desktop\JavaProgs>java Student
```

```
Enter your Name: Medha Madhusudhan
```

```
Enter your USN: 1BM19EC074
```

```
Enter marks in Subject 1: 100
```

```
Enter credits of Subject 1: 4
```

```
Enter marks in Subject 2: 96
```

```
Enter credits of Subject 2: 5
```

```
Enter marks in Subject 3: 67
```

```
Enter credits of Subject 3: 5
```

```
Enter marks in Subject 4: 76
```

```
Enter credits of Subject 4: 4
```

```
Enter marks in Subject 5: 88
```

```
Enter credits of Subject 5: 3
```

```
Here are your details:
```

```
USN: 1BM19EC074
```

```
Name: Medha Madhusudhan
```

```
SUBJECT 1 CREDITS: 4 MARKS: 100
```

```
SUBJECT 2 CREDITS: 5 MARKS: 96
```

```
SUBJECT 3 CREDITS: 5 MARKS: 67
```

```
SUBJECT 4 CREDITS: 4 MARKS: 76
```

```
SUBJECT 5 CREDITS: 3 MARKS: 88
```

```
Your sgpa is: 8.761904761904763
```