

```
1  import java.util.*;
2  public class student
3  {
4  String usn,name;
5  static int credits[];
6  static double marks[];
7  void input(int n)
8  {
9  Scanner sc=new Scanner(System.in);
10 System.out.println("enter usn and name ");
11 usn=sc.nextLine();
12 name=sc.nextLine();
13 System.out.println("enter marks along with credits");
14 for(int i=0;i<n;i++)
15 {
16 marks[i]=sc.nextDouble();
17 credits[i]=sc.nextInt();
18 System.out.println();
19 }
20 }
21 double calculate(int n)
22 {
23 int c,cred=0;
24 double tot,total=0.0;
25 for(int i=0;i<n;i++)
26 {
27 tot=marks[i];
28 if(tot>=90)
29     c=10;
30     else if(tot>=80)
31     c=9;
```



```
25 for(int i=0;i<n;i++)
26 {
27     tot=marks[i];
28     if(tot>=90)
29         c=10;
30     else if(tot>=80)
31         c=9;
32     else if(tot>=70)
33         c=8;
34     else if(tot>=60)
35         c=7;
36     else if(tot>=50)
37         c=6;
38     else if(tot>=40)
39         c=4;
40     else
41         c=0;
42     total=total+(c*credits[i]);
43     cred=cred+credits[i];
44 }
45 total=total/cred;
46 return(total);
47 }
48 void display(int n,double total)
49 {
50     System.out.println("name of student : "+name);
51     System.out.println("usn of student : "+usn);
52     System.out.println("marks of student along with credits of course");
53     for(int i=0;i<n;i++)
54     {
55         System.out.println(marks[i]+"    "+credits[i]);
```



```
42     total=total+(c*credits[i]);
43     cred=cred+credits[i];
44 }
45 total=total/cred;
46 return(total);
47 }
48 void display(int n,double total)
49 {
50     System.out.println("name of student : "+name);
51     System.out.println("usn of student : "+usn);
52     System.out.println("marks of student along with credits of course");
53     for(int i=0;i<n;i++)
54     {
55         System.out.println(marks[i]+"    "+credits[i]);
56     }
57     System.out.println("sgpa of student : "+total);
58 }
59 public static void main(String args[])
60 {
61     Scanner sc=new Scanner(System.in);
62     student obj=new student();
63     System.out.println("enter no of course ");
64     int n=sc.nextInt();
65     credits=new int[n];
66     marks=new double[n];
67     obj.input(n);
68     double total=obj.calculate(n);
69     obj.display(n,total);
70 }
71 }
72
```


enter no of course

5

enter usn and name

1BM19CS122

prithvi j

enter marks along with credits

90

2

88

2

95

1

90

2

88

3

name of student : prithvi j

usn of student : 1BM19CS122

marks of student along with credits of course

90.0 2

88.0 2

95.0 1

90.0 2

88.0 3

sgpa of student : 9.5