

```

1  import java.util.*;
2  class Student
3  {
4      private int n,credit[],gp[];
5      private String name,usn;
6      double sum,sgpa,marks[];
7
8      Student()
9      {
10         name=" ";
11         usn=" ";
12     }
13
14
15     void accept()
16     {
17         Scanner sc=new Scanner(System.in);
18         System.out.println("enter the number of the subjects:");
19         n=sc.nextInt();
20         credit=new int[n+1];
21         marks=new double[n+1];
22         System.out.println("enter usn and name of the student ");
23         usn=sc.next();
24         name=sc.next();
25
26
27         System.out.println("enter credit and marks in each subject");
28         for(int i =1;i<=n;i++)
29         {
30             System.out.println("enter subject "+i+" credit and marks");
31             credit[i]=sc.nextInt();
32             marks[i]=sc.nextDouble();
33         }
34     }
35
36     void calculate()
37     {
38         gp=new int[n+1];
39         int cre=0;
40         for(int i=1;i<=n;i++)
41         {
42
43             if(marks[i]>=90)
44                 gp[i]=10;
45             else if (marks[i]>=80&&marks[i]<90)
46                 gp[i]=9;
47             else if (marks[i]>=70&&marks[i]<80)

```

```

37 {
38     gp=new int[n+1];
39     int cre=0;
40     for(int i=1;i<=n;i++)
41     {
42
43         if(marks[i]>=90)
44             gp[i]=10;
45         else if (marks[i]>=80&&marks[i]<90)
46             gp[i]=9;
47         else if (marks[i]>=70&&marks[i]<80)
48             gp[i]=8;
49         else if (marks[i]>=60&&marks[i]<70)
50             gp[i]=7;
51         else if (marks[i]>=50&&marks[i]<60)
52             gp[i]=5;
53         else if (marks[i]<40)
54             gp[i]=0;
55         sum=(double)(credit[i]*gp[i])+sum;
56         cre=cre+credit[i];
57     }
58     sgpa=sum/cre;
59 }
60
61 void display()
62 {
63     System.out.println("usn:"+usn+" name:"+name);
64     for(int i=1;i<=n;i++)
65         System.out.println("marks:"+marks[i]+" grade points:"+gp[i]);
66     System.out.printf("sgpa=%.2f",sgpa);
67 }
68 }
69
70 class Studentmain
71 {
72
73     public static void main(String[] args)
74     {
75         Student s1=new Student();
76         s1.accept();
77         s1.calculate();
78         s1.display();
79     }
80 }
81

```

```
enter the number of the subjects:
5
enter usn and name of the student
abs123 Riya
enter credit and marks in each subject
enter subject 1 credit and marks
3 98
enter subject 2 credit and marks
4 92
enter subject 3 credit and marks
4 78
enter subject 4 credit and marks
5 67
enter subject 5 credit and marks
3 90
usn:abs123 name:Riya
marks:98.0 grade points:10
marks:92.0 grade points:10
marks:78.0 grade points:8
marks:67.0 grade points:7
marks:90.0 grade points:10
sgpa=8.79Press any key to continue . . .
```