

```

1 import java.util.Scanner;
2 class student{
3     private int a_cred[], total_cred=0;
4     private double a_mark[], a_cal[], sum=0, sgpa, num[];
5     private String name, usn;
6
7     void acceptDetails()
8     {
9         System.out.println("Enter student details:");
10        Scanner s1 = new Scanner(System.in);
11        System.out.println("Enter name:");
12        name = s1.nextLine();
13        System.out.println("Enter usn:");
14        usn = s1.nextLine();
15        a_mark = new double[5];
16        a_cred = new int[5];
17        a_cal = new double[5];
18        for(int i=0; i<5; i++){
19            System.out.println("Enter a_mark["+i+"]");
20            a_mark[i]=s1.nextDouble();
21        }
22        for(int i=0; i<5; i++){
23            System.out.println("Enter a_cred["+i+"]");
24            a_cred[i]=s1.nextInt();
25        }
26    }
27
28    void displayDetails()
29    {
30        System.out.println("name:" +name);
31        System.out.println("usn:" +usn);
32        System.out.println("Marks of student are:");
33        for(int i=0; i<5; i++){
34            System.out.println("a_mark["+i+"]"+" ":"+a_mark[i]);
35        }
36    }
37
38    void calculate(){
39        num = new double[5];
40        for(int i=0; i<5; i++){
41            if(a mark[i]>100){

```

```

37
38 void calculate(){
39     num = new double[5];
40     for(int i=0; i<5; i++){
41         if(a_mark[i]>100){
42             System.out.println("invalid marks");
43         }
44         else if(a_mark[i]>=90){
45             num[i] = 10;
46         }
47         else if(a_mark[i]>=80 && a_mark[i]<90){
48             num[i] = 9;
49         }
50         else if(a_mark[i]>=70 && a_mark[i]<80){
51             num[i] = 8;
52         }
53         else if(a_mark[i]>=60 && a_mark[i]<70){
54             num[i] = 7;
55         }
56         else if(a_mark[i]>=50 && a_mark[i]<60){
57             num[i] = 5;
58         }
59         else if(a_mark[i]>=40 && a_mark[i]<50){
60             num[i] = 4;
61         }
62         else{
63             num[i] = 0;
64         }
65         a_cal[i] = num[i]*a_cred[i];
66         sum = sum + a_cal[i];
67         total_cred = total_cred + a_cred[i];
68     }
69     sgpa = sum/total_cred;
70     System.out.println("sgpa:" + sgpa);
71 }
72 }
73
74 class StudentMain
75 {
76     public static void main(String args[]){
77         student obj = new student();

```



```

43     }
44     else if(a_mark[i]>=90){
45         num[i] = 10;
46     }
47     else if(a_mark[i]>=80 && a_mark[i]<90){
48         num[i] = 9;
49     }
50     else if(a_mark[i]>=70 && a_mark[i]<80){
51         num[i] = 8;
52     }
53     else if(a_mark[i]>=60 && a_mark[i]<70){
54         num[i] = 7;
55     }
56     else if(a_mark[i]>=50 && a_mark[i]<60){
57         num[i] = 5;
58     }
59     else if(a_mark[i]>=40 && a_mark[i]<50){
60         num[i] = 4;
61     }
62     else{
63         num[i] = 0;
64     }
65     a_cal[i] = num[i]*a_cred[i];
66     sum = sum + a_cal[i];
67     total_cred = total_cred + a_cred[i];
68 }
69 sgpa = sum/total_cred;
70 System.out.println("sgpa:" +sgpa);
71 }
72 }
73
74 class StudentMain
75 {
76     public static void main(String args[]){
77         student obj = new student();
78         obj.acceptDetails();
79         obj.displayDetails();
80         obj.calculate();
81     }
82 }
83

```

```
(base) jathinsmacbookpro@Jathins-MacBook-Pro java % javac lab2.java
(base) jathinsmacbookpro@Jathins-MacBook-Pro java % java StudentMain
Enter student details:
Enter name:
e
Enter usn:
3
Enter a_mark[0]
90
Enter a_mark[1]
90
Enter a_mark[2]
90
Enter a_mark[3]
90
Enter a_mark[4]
90
Enter a_cred[0]
3
Enter a_cred[1]
3
Enter a_cred[2]
3
Enter a_cred[3]
3
Enter a_cred[4]
3
name:e
usn:3
Marks of student are;
a_mark[0]:90.0
a_mark[1]:90.0
a_mark[2]:90.0
a_mark[3]:90.0
a_mark[4]:90.0
sgpa:10.0
(base) jathinsmacbookpro@Jathins-MacBook-Pro java %
```



```
(base) jathinsmacbookpro@Jathins-MacBook-Pro java % java StudentMain
Enter student details:
Enter name:
jatin
Enter usn:
1BM19CS066
Enter a_mark[0]
80
Enter a_mark[1]
70
Enter a_mark[2]
90
Enter a_mark[3]
60
Enter a_mark[4]
50
Enter a_cred[0]
3
Enter a_cred[1]
4
Enter a_cred[2]
5
Enter a_cred[3]
3
Enter a_cred[4]
2
name:jatin
usn:1BM19CS066
Marks of student are:
a_mark[0]:80.0
a_mark[1]:70.0
a_mark[2]:90.0
a_mark[3]:60.0
a_mark[4]:50.0
sgpa:8.235294117647058
(base) jathinsmacbookpro@Jathins-MacBook-Pro java %
```