

```

1 import java.util.*;
2 class Student {
3     private String usn;
4     private String name;
5     private int cred[];
6     private int marks[];
7     private int n;
8
9     void accept()
10    {
11        Scanner s=new Scanner(System.in);
12        System.out.println("Enter student details");
13        System.out.println("USN of the student:");
14        usn=s.next();
15        System.out.println("Name of student:");
16        name=s.next();
17        System.out.println("Enter the number of subjects:");
18        n=s.nextInt();
19        cred=new int[n];
20        marks=new int[n];
21        System.out.println("Enter credits and marks attained by the student in each subject(out of 100)");
22        for(int i=0;i<n;i++)
23        {
24            cred[i]=s.nextInt();
25            marks[i]=s.nextInt();
26        }
27    }
28    void display()
29    {
30        System.out.println("Student details:");
31        System.out.println("USN:"+usn);
32        System.out.println("Name:"+name);
33        System.out.println("Marks in each subject:");
34        for(int i=0;i<n;i++)
35        {
36            System.out.println("Subject "+(i+1)+":"+marks[i]);

```

input

Main.java

```
31 System.out.println("USN:"+usn);
32 System.out.println("Name:"+name);
33 System.out.println("Marks in each subject:");
34 for(int i=0;i<n;i++)
35 {
36     System.out.println("Subject "+(i+1)+":"+marks[i]);
37 }
38 }
39 double calculate()
40 {
41     int tcp=0,tc=0;
42     for(int i=0;i<n;i++)
43     {
44         tc=tc+cred[i];
45         if(marks[i]>=50)
46         {
47             tcp=tcp+(((marks[i]/10)+1)*cred[i]);
48         }
49         else if(marks[i]>=40 && marks[i]<50)
50         {
51             tcp=tcp+(4*cred[i]);
52         }
53     }
54     return (double)tcp/tc;
55 }
56 }
57 class Main
58 {
59
60     public static void main(String ss[]) {
61         Student s1=new Student();
62         s1.accept();
63         s1.display();
64         System.out.println("SGPA: "+s1.calculate());
65     }
66 }
```

input

input

```
USN of the student:
2BM19CS001
Name of student:
ashu
Enter the number of subjects:
4
Enter credits and marks attained by the student in each subject(out of 100)
2
3
4
1
55
57
88
99
Student details:
USN:2BM19CS001
Name:ashu
Marks in each subject:
Subject 1:3
Subject 2:1
Subject 3:57
Subject 4:99
SGPA: 8.120805369127517
```

```
...Program finished with exit code 0
Press ENTER to exit console.
```


EXCELLEN
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Develop a Java program to create a class student with members USN, name, an array credits and an array marks. Include methods to accept & display details & a method to calculate SGPA of a student.

```
import java.util.*;
class student {
    Private String USN;
    Private String name;
    Private int credits [];
    Private int marks [];
    Private int n;
    void accept ()
    {
        Scanner s = new Scanner (System.in);
        System.out.println ("Enter student details");
        System.out.println ("Name: ");
        name = s.next ();
        System.out.println ("Enter the number of subjects:");
        n = s.nextInt ();
        credits = new int [n];
        marks = new int [n];
        System.out.println ("Enter credits & marks attained  
by the student in each subject");
        for (int i=0; i<n; i++)
        {
            credits [i] = s.nextInt ();
            marks [i] = s.nextInt ();
        }
    }
    void display ()
    {

```



```

System.out.println("Student details:");
System.out.println("USN: " + USN);
System.out.println("Name: " + name);
System.out.println("Marks in each subject:");
for (int i = 0; i < n; i++)
{
    System.out.println("Subject " + (i+1) + ": " + marks[i]);
}
}

Double calculate()
{
    int tcp = 0, tc = 0;
    for (int i = 0; i < n; i++)
    {
        tc = tc + credits[i];
        if (marks[i] >= 50)
        {
            tcp = tcp + ((marks[i] / 10) + 1) * credits[i];
        }
        else if (marks[i] >= 40 + + marks[i] < 50)
        {
            tcp = tcp + (4 * credits[i]);
        }
    }
    return (double) tcp / tc;
}

}

class Student main
{
    Public static void main (String ss[])
    {
        Student st = new student();
        st.accept();
    }
}

```


sl. display ();

System.out.println("SGPA:" + sl.calculate());

}

}

Output

USN of the student:

2BM19CS001

Name of Student:

ashu

Enter the number of subjects:

4

Enter credits and marks attained by the student
in each subject (out of 100)

2

3

4

1

55

57

88

99

Student details:

USN: 2BM19CS001

Name: ashu

Marks in each subject:

Subject 1: 3

Subject 2: 1

Subject 3: 57

Subject 4: 99

SGPA: 8.1208