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Student.java x
1  import java.util.Scanner;
2  class student
3  {
4      private String usn,name;
5      private int credits[];
6      private double marks[],sgpa;
7      private int size;
8      private double gp[];
9      Scanner sc=new Scanner(System.in);
10     student()
11     {
12         System.out.println("Enter number of subjects");
13         size=sc.nextInt();
14         credits=new int[size];
15         marks=new double[size];
16         gp=new double[size];
17         usn="";
18         name="";
19     }
20     void accept()
21     {
22         System.out.println("Enter the name of the student");
23         name=sc.next();
24         System.out.println("enter usn of students");
25         usn=sc.next();
26         for(int i=0;i<size;i++)
27         {
28             System.out.println("enter marks obtained and credits sub"+(i+1));
29             marks[i]=sc.nextDouble();
30             credits[i]=sc.nextInt();
31         }
32     }
33     void display()
34     {
35
36         System.out.println("name:"+name);
37         System.out.println("usn:"+usn);
38         System.out.println("-----marks obtained-----");
39         for(int i=0;i<size;i++)
40             System.out.println("sub "+(i+1)+": marks="+marks[i]+" ; credits="+credits[i]+" ; grade_points="+gp[i]+"");
41         System.out.printf("sgpa:%.2f\n",sgpa);
42
43     }
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Student.java x
42
43
44     }
45     void calc()
46     {
47         double sum=0,total=0;
48         for(int i=0;i<size;i++)
49         {
50             sum=sum+credits[i];
51             if(marks[i]>=90)
52             {
53                 total=total+(10*credits[i]);
54                 gp[i]=10*credits[i];
55             }
56             else if(marks[i]>=80)
57             {
58                 total=total+(9*credits[i]);
59                 gp[i]=9*credits[i];
60             }
61             else if(marks[i]>=70)
62             {
63                 total=total+(8*credits[i]);
64                 gp[i]=8*credits[i];
65             }
66             else if(marks[i]>=60)
67             {
68                 total=total+(7*credits[i]);
69                 gp[i]=7*credits[i];
70             }
71             else if(marks[i]>=50)
72             {
73                 total=total+(5*credits[i]);
74                 gp[i]=5*credits[i];
75             }
76             else if(marks[i]>=40)
77             {
78                 total=total+(4*credits[i]);
79                 gp[i]=4*credits[i];
80             }
81             else
82             {
83                 total=total+(3*credits[i]);
84                 gp[i]=3*credits[i];
85             }
86         }
87     }
```

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3         else
4         {
5             total=total+(0*credits[i]);
6             gp[i]=0*credits[i];
7         }
8
9     }
10    sgpa=total/sum;
11}
12
13}
14class student1
15{
16    public static void main(String args[])
17    {
18        student s=new student();
19        s.accept();
20        s.calc();
21
22        s.display();
23    }
24}
25

```

```

[Arvinds-MacBook-Pro:ooj Arvind$ java student1
Enter number of subjects
3
Enter the name of the student
anvitha
enter usn of students
1bm19cs021
enter marks obtained and credits sub1
100
5
enter marks obtained and credits sub2
90
4
enter marks obtained and credits sub3
70
3
name:anvitha
usn:1bm19cs021
-----marks obtained-----
sub 1: marks=100.0 ; credits=5; grade_points=50.0;
sub 2: marks=90.0 ; credits=4; grade_points=40.0;
sub 3: marks=70.0 ; credits=3; grade_points=24.0;
sgpa:9,50
Arvinds-MacBook-Pro:ooj Arvind$ █

```