IBM19 CS090

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Lab Program 2:

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

code:

```java
import java.util.Scanner;

class Student
{
    private
        String usn, name;
        float cr[] = new float[5];
        float m[] = new float[5];

    public
        Scanner s = new Scanner(System.in);

        void getdet()
        {
            System.out.println("Enter Name:");
            name = s.next();
            System.out.println("Enter usn:");
            usn = s.next();
            for(int i=0; i<5; i++)
            {
                System.out.println("Enter Credits for Subject "+(i+1));
                cr[i] = s.nextFloat();
                System.out.println("Enter Marks for subject "+(i+1));      +i/100"
                m[i] = s.nextFloat();
            }
        }
}
```

```java
public void printdel()
{
    System.out.println("Student Details are,");
    System.out.println("Name: "+name);
    System.out.println("USN:"+usn);
    for(int i=0; i<5; i++)
    {
        System.out.println("Subject "+(i+1)+" Credits:"+cr[i]);
        System.out.println("Subject "+(i+1)+" Marks:"+m[i]);
    }
}
public void segpa()
{
    int a;
    float seg=0, tcr=0;
    for(int i=0; i<5; i++)
    {
        tcr += cr[i];
    }
    for(int i=0; i<5; i++)
    {
        if(m[i]>=90)
        a = 10;
        else if(m[i]>=80)
        a = 8;
        else if(m[i]>=70)
        a = 7;
        else if(m[i]>=60)
        a = 6;
        else if(m[i]>=50)
        a = 5;
        else
        a = 4;
        seg += ((cr[i]*a)/tcr);
    }
    System.out.println("SCGP is "+seg);
}
```

```
class    main
{
        public    static    void    main ( String    args[ ] )
        {
                float  scgp
                Student    s1 = new    Student ( ).
                s1. getdet() ;
                s2. printdet(),
                s1. scgpa ();
        }
}
```

```java
 2
 3 class Student
 4 {
 5    private
 6       String usn,name;
 7       float cr[]=new float[5];
 8       float m[]=new float[5];
 9    public
10       Scanner s=new Scanner(System.in);
11       void getdet()
12       {
13
14          System.out.println("Enter Name:");
15          name=s.next();
16          System.out.println("Enter USN:");
17          usn=s.next();
18          for(int i=0;i<5;i++)
19          {
20             System.out.println("Enter Credits for subject "+(i+1)+":");
21             cr[i]=s.nextFloat();
22             System.out.println("Enter Marks for subject "+(i+1)+"(for 100):");
23             m[i]=s.nextFloat();
24          }
25       }
26       public void printdet()
27       {
28          System.out.println("Student Details are,");
29          System.out.println ("Name:"+name);
30          System.out.println ("USN:"+usn);
31          for(int i=0;i<5;i++)
32          {
33             System.out.println("Subject "+(i+1)+" Credits:"+cr[i]);
34             System.out.println("Subject "+(i+1)+" Marks:"+m[i]);
35          }
36       }
37       public void scgpa()
38       {
39          int a;
40          float scg=0,tcr=0;
41          for(int i=0;i<5;i++)
42          {
43             tcr+=cr[i];
44          }
45          for(int i=0;i<5;i++)
46          {
47             if(m[i]>=90)
48             a=10;
49             else if(m[i]>=80)
50             a=8;
51             else if(m[i]>=70)
52             a=7;
53             else if(m[i]>=60)
54             a=6;
55             else if(m[i]>=50)
56             a=5;
57             else
58             a=4;
59             scg+=((cr[i]*a)/tcr);
60          }
61          System.out.println("SCGP is "+scg);
62       }
63 }
64
65 class main
66 {
67    public static void main(String args[])
68    {
69       float scgp;
70       Scanner n=new Scanner(System.in);
71       Student s1=new Student();
72       s1.getdet();
73       s1.printdet();
74       s1.scgpa();
75    }
76 }
```

```
Enter Name:
rahil
Enter USN:
1BM19CS090
Enter Credits for subject 1:
5
Enter Marks for subject 1(for 100):
87
Enter Credits for subject 2:
4
Enter Marks for subject 2(for 100):
91
Enter Credits for subject 3:
4
Enter Marks for subject 3(for 100):
81
Enter Credits for subject 4:
4
Enter Marks for subject 4(for 100):
76
Enter Credits for subject 5:
3
Enter Marks for subject 5(for 100):
71
Student Details are,
Name:rahil
USN:1BM19CS090
Subject 1 Credits:5.0
Subject 1 Marks:87.0
Subject 2 Credits:4.0
Subject 2 Marks:91.0
Subject 3 Credits:4.0
Subject 3 Marks:81.0
Subject 4 Credits:4.0
Subject 4 Marks:76.0
Subject 5 Credits:3.0
Subject 5 Marks:71.0
SCGP is 8.05

Process finished.
```