Muhammed Ibrahim Rahil.

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));
                m[i] = s.nextFloat();
            }
        }
}
```

```java
public void printdet()
{
    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 scg = 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;
        scg += ((cr[i]*a) /tcr);
    }
    System.out.println(" SCGP is " + scg);
}
}
```

```
class    main
{
     public    static    void    main ( String    args[ ])
     {
           ~~float    scgp~~
           Student    S1 = new    Student ();
           S1. getdet() ;
           S1. 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 }
```

```
×     Terminal                          ⬚

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.
```