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.

```java
import java.util.*;

class Stud_det {
    int m[] = new int[8];
    int c[] = new int[8];
    int p[] = new int[8];
    int g, sum;
    String name, usn;
    double sgpa;
    Scanner s = new Scanner(System.in);

    void getdetails() {
        System.out.println("Enter name:");
        name = s.next();
        System.out.println("Enter usn:");
        usn = s.next();
        for (int i = 0; i < 8; i++) {
            System.out.println("Enter marks of subject:"+(i+1));
            m[i] = s.nextInt();
            System.out.println("Enter credits for subject:"+(i+1));
            c[i] = s.nextInt();
        }
    }

    void gradepoint() {
        for (int i = 0; i < 8; i++) {
            if (m[i] >= 90 && m[i] <= 100)
                p[i] = 10;
            else if (m[i] >= 80 && m[i] < 90)
                p[i] = 9;
            else if (m[i] >= 70 && m[i] < 80)
                p[i] = 8;
            else if (m[i] >= 60 && m[i] < 70)
                p[i] = 7;
            else if (m[i] >= 50 && m[i] < 60)
                p[i] = 6;
            else if (m[i] >= 40 && m[i] < 50)
                p[i] = 5;
            else
                p[i] = 0;
        }
    }

    void calculate() {
```

```java
    for (int i = 0; i < 8; i++) {
        g += c[i] * p[i];
    }
    for (int i = 0; i < 8; i++) {
        sum += c[i];
    }
    sgpa = g / sum;
  }

  void display() {
      System.out.println("Name:" + name);
      System.out.println("USN:" + usn);
      System.out.println("SGPA=:" + sgpa);
  }
}

class student1 {
 public static void main(String a[]){
  Stud_det s1[]=new Stud_det[3];
  for(int i=0;i<3;i++)
  {
    s1[i]=new Stud_det();
  }
  for(int i=0;i<3;i++)
  {
   System.out.println("Enter details of student:"+(i+1));
   s1[i].getdetails();
  }
  for(int i=0;i<3;i++)
  {
   s1[i].gradepoint();
   s1[i].calculate();
  }
  for(int i=0;i<3;i++)
  {
   System.out.println("Student-"+(i+1));
   s1[i].display();
  }
 }
}
```

```
operable program or batch file.

C:\Users\bmsce>cd Documents

C:\Users\bmsce\Documents>cd 1BM23CS050

C:\Users\bmsce\Documents\1BM23CS050>javac student1.java

C:\Users\bmsce\Documents\1BM23CS050>java student1
Enter details of student:1
Enter name:
Avi
Enter usn:
1BM23CS004
Enter marks of subject:1
90
Enter credits for subject:1
10
Enter marks of subject:2
88
Enter credits for subject:2
9
Enter marks of subject:3
77
Enter credits for subject:3
8
Enter marks of subject:4
75
Enter credits for subject:4
8
Enter marks of subject:5
76
Enter credits for subject:5
8
Enter marks of subject:6
88
Enter credits for subject:6
9
Enter marks of subject:7
56
Enter credits for subject:7
6
Enter marks of subject:8
89
Enter credits for subject:8
8
```

```
Enter details of student:2
Enter name:
Mridula
Enter usn:
1BM23CS001
Enter marks of subject:1
98
Enter credits for subject:1
10
Enter marks of subject:2
99
Enter credits for subject:2
10
Enter marks of subject:3
88
Enter credits for subject:3
9
Enter marks of subject:4
79
Enter credits for subject:4
8
Enter marks of subject:5
86
Enter credits for subject:5
9
Enter marks of subject:6
67
Enter credits for subject:6
7
Enter marks of subject:7
45
Enter credits for subject:7
5
Enter marks of subject:8
54
Enter credits for subject:8
6
Enter details of student:3
Enter name:
Xavier
Enter usn:
1BM23CS090
Enter marks of subject:1
10
Enter credits for subject:1
0
Enter marks of subject:2
57
Enter credits for subject:2
6
Enter marks of subject:3
```

```
Enter details of student:3
Enter name:
Xavier
Enter usn:
1BM23CS090
Enter marks of subject:1
10
Enter credits for subject:1
0
Enter marks of subject:2
57
Enter credits for subject:2
6
Enter marks of subject:3
76
Enter credits for subject:3
7
Enter marks of subject:4
88
Enter credits for subject:4
8
Enter marks of subject:5
45
Enter credits for subject:5
5
Enter marks of subject:6
34
Enter credits for subject:6
0
Enter marks of subject:7
54
Enter credits for subject:7
5
Enter marks of subject:8
66
Enter credits for subject:8
6
Student-1
Name:Avi
USN:1BM23CS004
SGPA=:8.0
Student-2
Name:Mridula
USN:1BM23CS001
SGPA=:8.0
Student-3
Name:Xavier
USN:1BM23CS090
SGPA=:7.0

C:\Users\bmsce\Documents\1BM23CS050>
```