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.Scanner;
class Student
{
    private String usn;
    private String sname;
    private int scredit[];
    private int smarks[];
```

```java
void getDetails()
{
System.out.println("enter student details : ");
Scanner in = new Scanner(System.in);
scredit = new int[5];
smarks = new int[5];
susn = in.next();
sname = in.next();
    for(int i=0; i<5; i++){
System.out.println("credit for sub "+ (i+1) +":");
scredit[i] = in.nextInt();
}

for(int i=0; i<5; i++){
System.out.println("marks for sub "+(i+1)+ ":");
smarks[i] = in.nextInt();
}
}

void printDetails()
{
System.out.println("USN: "+ susn);
System.out.println("Name : "+sname);
for(int i=0; i<5; i++){
System.out.print("credits for sub "+ (i+1)+ ":");
System.out.println(scredit[i]); }
```

```java
for (int i=0; i<5; i++) {
System.out.print("marks for sub "+ (i+1) +": ");
System.out.println(smarks[i]); }
}

void sgpa() {
int sum =0, sum2 =0;
double g =0;
double sgpa;
for (int i=0; i<5; i++) {
if (smarks[i] >= 90) {
  g =10; }
else if (smarks[i] >= 80 && smarks[i] < 90)
  { g = 9; }
else if (smarks[i] >= 70 && smarks[i] < 80) {
  g = 8; }
else if (smarks[i] >= 60 && smarks[i] < 70) {
  g = 7; }
else if (smarks[i] >= 50 && smarks[i] < 60) {
  g = 6; }
else if (smarks[i] >= 40 && smarks[i] < 50) {
  g = 4; }
else if (smarks[i] < 40) {
  g =0;
}
```

```java
        sum + = g * sucredit [i];
        sum 2+ = sucredit [i];
    }
    sgpa = sum/sum 2;
    System.out.print ("SGPA of student : ");
    System.out.println (sgpa);
    }
}

public class Main
{
public static void main (String ss [])
    {
    Student s1 = new Student();
    s1. getDetails();
    s1. printDetails();
    s1. Sgpa();
    }
}
```

Algorithm :

Step1 : Start

Step 2 : Input student details i.e. usn, name, credits and marks(of each of 5 subjects in 2 different arrays) ~~in different arrays~~

Step 3 : Display the student details ~~in main method~~

Step 4 : If smarks > 90, g = 10

else if smarks >= 80 && smarks < 90, g = 9

else if smarks > 70 && smarks < 80, g = 8

else if smarks > 60 && smarks < 70, g = 7

else if smarks > 50 && smarks < 60, g = 6

else if smarks >= 40 && smarks < 50, g = 4

else if smarks < 40, g = 0

Get value of g and calculate sum of (g * credits) (sum)

Step 5 : Calculate sgpa Get to sum of credits (sum 2)

Step 6 : Calculate sgpa = sum / sum2

Step 7 : Print sgpa of student ~~in main method~~

Step 8 : Stop