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.

```
import java.util.Scanner;
class student{
void display(String name, String usn)
{
        System.out.println("USN of the student "+usn);
   System.out.println("Name of the student "+ name);
}
void calculatesgpa(double[] marks, double[] credits, int number)
{
        double gradepoints[]=new double[number];
        double sgpa,sum=0,tnum=0;
        for (int i=0;i<number;i++)</pre>
        {
                if(marks[i]>=90)
                gradepoints[i]=10;
                else if(marks[i]>=80)
                gradepoints[i]=9;
                else if(marks[i]>=70)
                gradepoints[i]=8;
                else if(marks[i]>=60)
                gradepoints[i]=7;
                else if(marks[i]>=50)
                gradepoints[i]=6;
                else if(marks[i]>=40)
                gradepoints[i]=4;
                else
                gradepoints[i]=0;
```

```
}
        for(int i=0;i<number;i++)</pre>
                {
                        sum+=credits[i]*gradepoints[i];
                }
        for(int i=0;i<number;i++)</pre>
                {
                        tnum+=credits[i];
                }
        sgpa=sum/tnum;
        System.out.println("SGPA is "+sgpa);
}
}
class sgpa{
public static void main(String args[]){
Scanner s=new Scanner(System.in);
System.out.println("Enter name and usn of student");
String name=s.next();
String usn=s.next();
student s1=new student();
System.out.println("Enter the number of courses");
int number=s.nextInt();
double credits[]=new double[number];
double marks[]=new double[number];
for(int i=0;i<number;i++)</pre>
{
        System.out.print("Credit of subject "+(i+1) +" : ");
        credits[i]=s.nextDouble();
        System.out.print("Marks of subject "+(i+1) +" : ");
        marks[i]=s.nextDouble();
```

```
}
s1.display(name,usn);
s1.calculatesgpa(marks,credits,number);
}
```

OUTPUT

```
Command Prompt
C:\Users\Admin\Desktop\1bm21cs253>javac sgpa.java
C:\Users\Admin\Desktop\1bm21cs253>java sgpa
Enter name and usn of student
Yashaswini
1BM21CS253
Enter the number of courses
Credit of subject 1: 4
Marks of subject 1:93
Credit of subject 2:3
Marks of subject 2:87
Credit of subject 3 : 3
Marks of subject 3 : 92
Credit of subject 4:3
Marks of subject 4 : 92
Credit of subject 5 : 3
Marks of subject 5: 95
Credit of subject 6 : 1
Marks of subject 6:87
Credit of subject 7 : 1
Marks of subject 7 : 85
Credit of subject 8 : 1
Marks of subject 8 : 92
Credit of subject 9 : 1
Marks of subject 9: 99
USN of the student 1BM21CS253
Name of the student Yashaswini
SGPA is 9.75
C:\Users\Admin\Desktop\1bm21cs253>z
```