

```
import java.util.*;
class Student
{
    private String USN;
    private String name;
    private int n;
    private double SGPA = 0;
    private int totalCredits = 0;
    Scanner ss = new Scanner(System.in);

    void Details()
    {
        System.out.println("Enter USN of the student");
        USN = ss.nextLine();
        System.out.println("Enter Name of the student");
        name = ss.nextLine();
        System.out.println("Enter number of subjects");
        n = ss.nextInt();
        int credits[] = new int[n];
        double marks[] = new double[n];
        System.out.println("Enter details of the subjects:");
        for(int i=0;i<n;i++)
        {
            System.out.println("Enter credits allotted to the subject "+(i+1));
            credits[i] = ss.nextInt();
            System.out.println("Enter marks in the subject "+(i+1));
            marks[i] = ss.nextInt();
            Calculate(credits[i],marks[i],i);
        }
    }

    void Calculate(int credit,double mark,int j)
    {
        totalCredits = totalCredits + credit;
        if(mark>=90&&mark<=100)
            SGPA = SGPA + (10*credit);
        else if(mark>=80 && mark<=89)
            SGPA = SGPA + (9*credit);
        else if(mark>=70&&mark<=79)
            SGPA = SGPA + (8*credit);
        else if(mark>=60&&mark<=69)
            SGPA = SGPA + (7*credit);
        else if(mark>=50 && mark<=59)
            SGPA = SGPA + (6*credit);
    }
}
```

```
        System.out.println("Enter credits allotted to the subject "+(i+1));
        credits[i] = ss.nextInt();
        System.out.println("Enter marks in the subject "+(i+1));
        marks[i] = ss.nextInt();
        Calculate(credits[i],marks[i],i);
    }
}

void Calculate(int credit,double mark,int j)
{
    totalCredits = totalCredits + credit;
    if(mark>=90&&mark<=100)
        SGPA = SGPA + (10*credit);
    else if(mark>=80 && mark<=89)
        SGPA = SGPA + (9*credit);
    else if(mark>=70&&mark<=79)
        SGPA = SGPA + (8*credit);
    else if(mark>=60&&mark<=69)
        SGPA = SGPA + (7*credit);
    else if(mark>=50 && mark<=59)
        SGPA = SGPA + (6*credit);
    else if(mark>=40&&mark<=49)
        SGPA = SGPA + (5*credit);
    else
        System.out.println("Failed in subject "+(j+1));
}

void Display()
{
    System.out.println("Details of the Student");
    System.out.println("Name :"+name);
    System.out.println("USN: "+USN);
    System.out.println("SGPA of student "+(SGPA/totalCredits));
}
}

class Main
{
    public static void main(String args[])
    {
        Student s1 = new Student();
        s1.Details();
        s1.Display();
    }
}
```

C:\>cd java lab

C:\java lab>javac sgpa.java

C:\java lab>java Main

Enter USN of the student

1234

Enter Name of the student

aaa

Enter number of subjects

3

Enter details of the subjects:

Enter credits allotted to the subject 1

5

Enter marks in the subject 1

67

Enter credits allotted to the subject 2

5

Enter marks in the subject 2

45

Enter credits allotted to the subject 3

5

Enter marks in the subject 3

89

Details of the Student

Name :aaa

USN: 1234

SGPA of student 7.0

C:\java lab>\_