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.

Algorithm:

1. Class student with members-usn, name, array of credits, array of marks, total Credits and SGPA is created. It has methods accept, calculate and display.

2. usn, name, credit and marks are input.

3. sgpa = sgpa + (int) mark / grade point & cre for each subject.

4. Do sgpa = sgpa/total_credit to find sgpa of student.

5. Display all the details of student.

Program:

```java
import java.util.*;
class Student
{
    private String USN, name;
    private int n;
    private double SGPA = 0;
    private int totalCredits = 0;
```
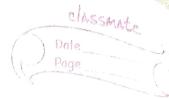
```java
    private int credits[];
    private int marks[];
    Scanner in = new Scanner (System.in);
void accept()
{
System.out.println ("Enter USN of the student");
USN = in.nextLine();
system.Out.println ("Enter Name of the student");
name = in.nextLine();
System.Out.println ("Enter no of subjects");
n = in.nextInt();
credits = new int[n];
marks = new double[n];
System.out.println ("Enter details of the
subjects:");
for (int i = 0; i<n; i++)
{
    System.out.println ("Enter credits for subject"
+(i+1));
    credits[i] = in.nextInt();
System.out.println ("Enter marks for subject"
+(i+1));
    marks[i] = in.nextInt();
    Calculate (credits[i], marks[i], i);
}
}
```

```java
void Calculate (int credit, double mark, int
{
    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 ("USN:"+ USN);
    System.out.println (" Name : "+name);
```

```java
      System.out.println("SGPA of Student " +
      (SGPA / total credits));
   }
}

class Main {
public static void main(string args[])
{
      Student sl = new student();
      sl.accept();
      sl.Display();
   }
}
```

Output:
Enter USN of the student
1bm19cs118
Enter name of the student
Prathiksha
Enter no of subject.
5
Enter details of the subjects:
Enter credits for subject 1.
4
Enter marks for subject 1
4
Failed in subject 1.

Enter credits for subject 2

3

Enter marks for subject 2

56.

Enter marks for subject 3

5

Enter marks for subject 3

89

Enter credits for subject 4.

3

Enter marks for subject 4

89

Enter credits for subject 5

2.

Enter marks for subject 5

90

Details of the Student

USN: 1bm19cs118

Name: Prathiksha

SGPA of Student: 6.47.