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 the SGPA of a student.

```java
import java.util.*;
class Student {
        private String usn;
        private String name;
        private int credits[];
        private int marks[];
        private int n;

void accept()
{
        Scanner s=new Scanner(System.in);
        System.out.println("Enter the student details: ");
        System.out.println("USN = ");
        usn=s.next();
        System.out.println("Name = ");
        name=s.next();
        System.out.println("Enter the number of subjects: ");
        n=s.nextInt();
        credits=new int[n];
        marks=new int[n];
        System.out.println("Enter details for the subjects: ");
        for(int i=0;i<n;i++)
        {
             System.out.println("Enter credits for subject : " + (i+1));
             credits[i]=s.nextInt();
             System.out.println("Enter marks for subject : "+ (i+1));
             marks[i]=s.nextInt();
        }
}
        void display()
        {
           System.out.println("--------------------------");
                System.out.println("The Student's details are: ");
                System.out.println("USN : "+usn);
                System.out.println("Name : "+name);
                System.out.println("Marks in each subject :");
                for(int i=0;i<n;i++)
                {
```

```java
                System.out.println("Subject "+(i+1)+" = "+marks[i]);
            }
    }
    double calculate()
    {
            int tcp=0,tc=0;
            for(int i=0;i<n;i++)
    {
    tc=tc+credits[i];
    if(marks[i]>=50)
    {
    tcp=tcp+(((marks[i]/10)+1)*credits[i]);
    }
    else if(marks[i]>=40 && marks[i]<50)
    {
            tcp=tcp+(4*credits[i]);
    }
    }
    return (double)tcp/tc;
}
}



public class Main
    {

    public static void main(String args[]) {
            Student s1=new Student();
            s1.accept();
            s1.display();
            System.out.println("SGPA : "+s1.calculate());
            System.out.println("----------------------------");
}
}
```

THE OUTPUT:

```
C:\Users\yrlsh>cd desktop

C:\Users\yrlsh\Desktop>javac Main.java

C:\Users\yrlsh\Desktop>java Main
Enter the student details:
USN =
1bm19cs216
Name =
Yashaswini
Enter the number of subjects:
4
Enter details for the subjects:
Enter credits for subject : 1
3
Enter marks for subject : 1
80
Enter credits for subject : 2
4
Enter marks for subject : 2
85
Enter credits for subject : 3
5
Enter marks for subject : 3
90
Enter credits for subject : 4
4
Enter marks for subject : 4
90
--------------------------
The Student's details are:
USN : 1bm19cs216
Name : Yashaswini
Marks in each subject :
Subject 1 = 80
Subject 2 = 85
Subject 3 = 90
Subject 4 = 90
SGPA : 9.5625
--------------------------
```

1BM19CS216