

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.

CODE:

```
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 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 credits and marks attained by the student in each
subject");
        for(int i=0;i<n;i++)
        {
            credits[i]=s.nextInt();
            marks[i]=s.nextInt();
        }
    }
    void display()
    {
        System.out.println("Student details:");
        System.out.println("USN:"+usn);
        System.out.println("Name:"+name);
        System.out.println("Marks in each subject:");
        for(int i=0;i<n;i++)
        {
```

```

        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;
}
}

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

```

OUTPUT:

```
D:\Kusum\00J2020>java StudentMain
Enter student details
USN:
1BM19CS000
Name:
Palak
Enter the number of subjects:
5
Enter credits and marks attained by the student in each subject
4 77
5 78
3 74
4 75
4 77
Student details:
USN:1BM19CS000
Name:Palak
Marks in each subject:
Subject 1:77
Subject 2:78
Subject 3:74
Subject 4:75
Subject 5:77
SGPA: 8.0
```

```
D:\Kusum\00J2020>java StudentMain
Enter student details
USN:
1BM19EC000
Name:
Anusha
Enter the number of subjects:
5
Enter credits and marks attained by the student in each subject
4 91
5 88
3 99
4 94
4 93
Student details:
USN:1BM19EC000
Name:Anusha
Marks in each subject:
Subject 1:91
Subject 2:88
Subject 3:99
Subject 4:94
Subject 5:93
SGPA: 9.75
```