2. Lab program - 2

```
import java.util.Scanner;
class Subject {
    int SubjectMarks; int credits; int grade;
}
class Student {
    Subject subject[];
    String name, usn;
    double sgpa;
    Scanner sc;
    int n;

    Student() {
        subject = new Subject[10];
        sc = new Scanner(System.in);
        System.out.println("Enter no. of subjects:");
        n = sc.nextInt();
        for(int i=0; i<9; i++) {
            subject[i] = new Subject();
        }
        sc.nextLine();
    }

    void getStudentDetails() {
        System.out.println("Enter name: ");
        name = sc.nextLine();
        System.out.println("Enter usn: ");
        usn = sc.nextLine();
    }

    void getMarks() {
        System.out.println("\n");
```

```
for (int i=0; i<n; i++){
        System.out.println("Enter no. of credits: ");
        subject[i].credits = sc.nextInt();
        System.out.println("Enter marks obtained: ");
        subject[i].SubjectMarks = sc.nextInt();
        System.out.println("\n");
        if (subject[i].SubjectMarks >100)
                subject[i].SubjectMarks =100;
        else if (subject[i].SubjectMarks <40)
                subject[i].SubjectMarks =0;
        subject[i].grade = (subject[i].SubjectMarks /10) +1;
        if (subject[i].grade == 11)
                subject[i].grade =10;
        if (subject[i].grade == 1)
                subject[i].grade = 0;
        if (subject[i].SubjectMarks >=40 &&
                subject[i].SubjectMarks <50)
                subject[i].grade =4;
        else if (subject[i].SubjectMarks >=50 &&
                subject[i].SubjectMarks <55)
                subject[i].grade =5;
        else if (subject[i].SubjectMarks >=55 &&
                subject[i].SubjectMarks <60)
                subject[i].grade =6;
        }
}

double computeSGPA(){
        int effective=0, credits=0;
        for(int i=0; i<n; i++){
                effective += (subject[i].grade * subject[i].credits);
                credits += subject[i].credits;
        }
```

```
        sgpa = effective / credits;
        return sgpa;
    }
}
class StudentMain {
    public static void main(String args[]) {
        Student student = new Student();
        System.out.println("Pranav 4 - 1BM22CS204");
        student.getStudentDetails();
        student.getMarks();
        System.out.println("Name of student is: " + student.name);
        System.out.println("USN of student is: " + student.usn);
        System.out.println("SGPA of student is: " +
                           student.computeSGPA());
    }
}
```

o/p ① Enter no. of subjects:
3
Pranav 4 - 1BM22CS204
Enter name:
Pranav
Enter USN:
CS204

Enter no. of credits:
5
Enter marks obtained:
100

Enter no. of credits:
3

Enter marks obtained:
93

Enter no. of credits:
1

Enter marks obtained:
97

Name of Student is: Pranav
USN of Student is: CS204
SGPA of Student is: 10.0

19/12/23