

## JAVA 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 Stud_det {
    int m[] = new int[8];
    int c[] = new int[8];
    int p[] = new int[8];
    int g, sum;
    String name, usn;
    double sgpa;
    Scanner s = new Scanner(System.in);

    void getdetails() {
        System.out.println("Enter name:");
        name = s.next();
        System.out.println("Enter usn:");
        usn = s.next();
        for (int i = 0; i < 8; i++) {
            System.out.println("Enter marks of subject:"+(i+1));
            m[i] = s.nextInt();
            System.out.println("Enter credits for subject:"+(i+1));
            c[i] = s.nextInt();
        }
    }

    void gradepoint() {
        for (int i = 0; i < 8; i++) {
            if (m[i] >= 90 && m[i] <= 100)
                p[i] = 10;
            else if (m[i] >= 80 && m[i] < 90)
                p[i] = 9;
            else if (m[i] >= 70 && m[i] < 80)
                p[i] = 8;
        }
    }
}
```

```

        else if (m[i] >= 60 && m[i] < 70)
            p[i] = 7;
        else if (m[i] >= 50 && m[i] < 60)
            p[i] = 6;
        else if (m[i] >= 40 && m[i] < 50)
            p[i] = 5;
        else
            p[i] = 0;
    }
}

void calculate() {
    for (int i = 0; i < 8; i++) {
        g += c[i] * p[i];
        sum += c[i];
    }
    sgpa = (double) g / sum;
}

void display() {
    System.out.println("Name:" + name);
    System.out.println("USN:" + usn);
    System.out.println("SGPA=" + sgpa);
}
}

public class student {
    public static void main(String a[]){
        Stud_det s1[]=new Stud_det[3];
        for(int i=0;i<3;i++)
        {
            s1[i]=new Stud_det();
        }
        for(int i=0;i<3;i++)
        {
            System.out.println("Enter details of student:"+(i+1));
            s1[i].getdetails();
            s1[i].gradepoint();
            s1[i].calculate();
        }
    }
}

```

```
for(int i=0;i<3;i++)
{
    System.out.println("Student-"+(i+1));
    s1[i].display();
}
}
```

Output:

```
Enter details of student:1
Enter name:
Abhay
Enter usn:
1BM23AI003
Enter marks of subject:1
97
Enter credits for subject:1
4
Enter marks of subject:2
93
Enter credits for subject:2
4
Enter marks of subject:3
96
Enter credits for subject:3
3
Enter marks of subject:4
84
Enter credits for subject:4
3
Enter marks of subject:5
98
Enter credits for subject:5
3
Enter marks of subject:6
78
Enter credits for subject:6
1
Enter marks of subject:7
99
Enter credits for subject:7
1
Enter marks of subject:8
95
Enter credits for subject:8
1
```

```
Enter details of student:2
Enter name:
Akshay
Enter usn:
1BM23CS022
Enter marks of subject:1
96
Enter credits for subject:1
4
Enter marks of subject:2
94
Enter credits for subject:2
4
Enter marks of subject:3
92
Enter credits for subject:3
3
Enter marks of subject:4
84
Enter credits for subject:4
3
Enter marks of subject:5
86
Enter credits for subject:5
3
Enter marks of subject:6
84
Enter credits for subject:6
1
Enter marks of subject:7
96
Enter credits for subject:7
1
Enter marks of subject:8
96
Enter credits for subject:8
1
```

```
Enter details of student:3
Enter name:
Sujan
Enter usn:
1BM23CS347
Enter marks of subject:1
81
Enter credits for subject:1
4
Enter marks of subject:2
82
Enter credits for subject:2
4
Enter marks of subject:3
74
Enter credits for subject:3
3
Enter marks of subject:4
68
Enter credits for subject:4
3
Enter marks of subject:5
81
Enter credits for subject:5
3
Enter marks of subject:6
80
Enter credits for subject:6
1
Enter marks of subject:7
97
Enter credits for subject:7
1
Enter marks of subject:8
96
Enter credits for subject:8
1
```

```
Student-1
Name:Abhay
USN:1BM23AI003
SGPA=9.75
Student-2
Name:Akshay
USN:1BM23CS022
SGPA=9.65
Student-3
Name:Sujan
USN:1BM23CS347
SGPA=8.65
```