

## LAB PROGRAM 2

```
import java.util.Scanner;  
class Student
```

```
{
```

```
    private int i, a;
```

```
    private int credits[] = new int [5];
```

```
    private int points[] = new int [5];
```

```
    private String name, usn;
```

```
    private double sgpa;
```

```
    private double marks[] = new double [5];
```

```
    Student ()
```

```
    {
```

```
        usn = "IBM19CS001";
```

```
        name = "Aakash";
```

```
        for (int i=0; i<5; i++)
```

```
        {
```

```
            marks[i] = 80;
```

```
            credits[i] = 4;
```

```
        }
```

```
    }
```

```
    Student (double [] mark, int [] credit, String nam, String us)
```

```
    {
```

```
        this.marks = mark;
```

```
        this.credits = credit;
```

```
        name = nam;
```

```
        us usn = us;
```

```
    }
```

```
    void enter ()
```

```
    {
```

```
        System.out.println ("Enter name and usn");
```

```
        Scanner s1 = new Scanner (System.in);
```

```

name = s1.next();
usn = s1.next();
for (i = 0; i <= 4; i++)
{
    System.out.println("Enter marks for
    SUBJECT " + (i+1));
    marks[i] = s1.nextInt();
    System.out.println("Enter credit for
    SUBJECT " + (i+1));
    credits[i] = s1.nextInt();
}
}

```

```

void display ()
{
    System.out.println("Student details :");
    System.out.println("NAME : " + name +
    " " + "USN : " + usn + " ");
    for (i = 0; i <= 4; i++)
        System.out.println("Marks for
        subject " + (i+1) + " is " + marks[i]);
    System.out.println("The sgpa of " + name +
    " is " + (double)sgpa/a);
}

```

```

void calculate()
{
    for (int i = 0; i < 5; i++)
    {
        if (marks[i] > 100)
        {
            System.out.print("Error:
            Marks are above 100");
            return;
        }
    }
}

```



```

else if (marks[i] >= 90)
    points[i] = 10;
else if (marks[i] >= 80)
    points[i] = 9;
else if (marks[i] >= 70)
    points[i] = 8;
else if (marks[i] >= 60)
    points[i] = 7;
else if (marks[i] >= 50)
    points[i] = 6;
else if (marks[i] >= 40)
    points[i] = 5;
else if (marks[i] >= 30)
    points[i] = 4;
else
    points[i] = 0;

```

```

sgpa = sgpa + (points[i] * credits[i]);
a = a + credits[i];

```

```

    }
}
}
class Student1
{

```

```

    {
        public static void main (String args[])
        {
            Student s1 = new Student();
            s1.enter();
            s1.calculate();
            s1.display();

```

```

            double[] marks = new double[] { 66, 96, 82, 85, 40 };
            int[] credits = new int[] { 2, 4, 4, 5, 4 };

```

```

            Student s2 = new Student(marks, credits, "Ashika", "IRM");
            s2.calculate();
            s2.display();

```

```

        }
    }
}

```

```
G:\bin\Programs>java Student1
enter the name and usn of the student
Hriday 1bm19cs098
enter marks for SUBJECT1
78
enter credit of SUBJECT1
3
enter marks for SUBJECT2
96
enter credit of SUBJECT2
4
enter marks for SUBJECT3
85
enter credit of SUBJECT3
4
enter marks for SUBJECT4
67
enter credit of SUBJECT4
4
enter marks for SUBJECT5
82
enter credit of SUBJECT5
5
Student details:
NAME:Hriday USN:1bm19cs098
marks for subject 1is 78.0
marks for subject 2is 96.0
marks for subject 3is 85.0
marks for subject 4is 67.0
marks for subject 5is 82.0
The sgpa of Hridayis8.65
Student details:
NAME:Ishika Singhal USN:1BM19CS064
marks for subject 1is 66.0
marks for subject 2is 92.0
marks for subject 3is 88.0
marks for subject 4is 45.0
marks for subject 5is 78.0
The sgpa of Ishika Singhalis7.8
```

Student1 - Notepad

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```
import java.util.Scanner;
class Student
{
    private int i, a;
    private int credits[]= new int[5];
    private int points[]= new int[5];
    private String name, usn;
    private double sgpa;
    private double marks[]= new double[5];

    Student()
    {
        usn="18M19CS001";
        name="Aakansha";
        for(int i=0;i<5;i++)
        {
            marks[i]=80;
            credits[i]=4;
        }
    }

    Student(double[] mark, int[] credit, String nam, String us) //Parameterized constructor
    {
        this.marks= mark;
        this.credits= credit;
        name= nam;
        usn=us;
    }

    void enter()
    {
        System.out.println("enter the name and usn of the student");
        Scanner s1= new Scanner(System.in);
        name= s1. next();
        usn= s1. next();
        for(i=0;i<4;i++)
        {
            System.out.println("enter marks for SUBJECT" + (i+1) );
            marks[i]= s1.nextInt();
            System.out.println("enter credit of SUBJECT" + (i+1) );
            credits[i]= s1.nextInt();
        }
    }
}
```

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```
Student1 - Notepad
File Edit Format View Help
}

}

void display()
{
    System.out.println("Student details:");
    System.out.println("NAME:" + name + " " + "USN:" + usn + " ");
    for(i=0;i<=4;i++)
    {
        System.out.println("marks for subject " + (i+1) + "is " + marks[i]);
    }
    System.out.println("The sgpa of " + name + "is" + (double) sgpa/a );
}

void calculate()
{
    for(int i = 0;i<5;i++)
    {
        if(marks[i] > 100){
            System.out.println("Error: Marks are above 100");
            return;
        }else if(marks[i] >= 90){
            points[i] = 10;
        }else if(marks[i] >= 80){
            points[i] = 9;
        }else if(marks[i] >= 70){
            points[i] = 8;
        }else if(marks[i] >= 60){
            points[i] = 7;
        }else if(marks[i] >= 50){
            points[i] = 5;
        }else if(marks[i] >= 40){
            points[i] = 4;
        }else{
            points[i] = 0;
        }

        sgpa += (points[i]*credits[i]);
        a = credits[i] + a;
    }
}
```

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```
Student1 - Notepad
File Edit Format View Help
    points[i] = 10;
} else if (marks[i] >= 80) {
    points[i] = 9;
} else if (marks[i] >= 70) {
    points[i] = 8;
} else if (marks[i] >= 60) {
    points[i] = 7;
} else if (marks[i] >= 50) {
    points[i] = 5;
} else if (marks[i] >= 40) {
    points[i] = 4;
} else {
    points[i] = 0;
}

sgpa += (points[i] * credits[i]);
a = credits[i] + a;
}
}

class Student1
{
    public static void main(String ss[])
    {
        Student s1 = new Student();
        s1.enter();
        s1.calculate();
        s1.display();

        double[] marks = new double[] { 66, 92, 88, 45, 78 };
        int[] credits = new int[] { 4, 4, 4, 3, 5 };

        Student s2 = new Student(marks, credits, "Ishika Singhal", "10M19CS064");
        s2.calculate();
        s2.display();
    }
}

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```