

```
import java.util.Scanner;
```

```
public class Student{
```

```
    private String name;
    private final String USN;
    private int[] marks, credits, grades;
    private double SGPA;
    public Student(String name, String USN, int[] marks, int[] credits){

        this.name=name;
        this.USN=USN;
        this.marks=marks;
        this.credits=credits;
        this.grades=new int[marks.length];
    }
```

```
    public void setGrades(){
        for(int i=0;i<marks.length;i++){
            if(marks[i]>=90 && marks[i]<=100){
                grades[i]=10;
            }
            else if(marks[i]>=80 && marks[i]<90){
                grades[i]=9;
            }
            else if(marks[i]>=70 && marks[i]<80){
                grades[i]=8;
            }
            else if(marks[i]>=60 && marks[i]<70){
                grades[i]=7;
            }
            else if(marks[i]>=50 && marks[i]<60){
                grades[i]=6;
            }
            else
                grades[i]=0;
        }
    }
```

```
    public void setSGPA(){
        int creditSum=0;
        int sum=0;
        for(int i=0;i<marks.length;i++){
            creditSum+=credits[i];
            sum+=grades[i]*credits[i];
        }
    }
```

```
        this.SGPA=(float)sum/creditSum;
```

```
    private String makeString(int[] array){
        StringBuffer s=new StringBuffer("");
        for(int ele: array)
            s.append(ele+"\t");
        return s.toString();
    }
```

```
    public void display(){
        System.out.println(String.format("Name: %s\nUSN: %s\nMarks: %s\nCredits: %s\nSGPA: %.2f",name, USN, makeString(marks), makeString(credits), SGPA));
    }
```

```
    }

    class Main{
        public static void main(String args[]){
            Scanner sc=new Scanner(System.in);
```

```
System.out.print("Enter name:");
String name=sc.nextLine();

System.out.print("Enter USN:");
String USN=sc.next().toUpperCase();

System.out.print("Enter no. of subjects:");
int n=sc.nextInt();

int[] marks=new int[n];
int[] credits=new int[n];

System.out.println("\nEnter the grade and marks of "+n+" subjects:");
for(int i=0;i<n;i++){
    credits[i]=sc.nextInt();
    marks[i]=sc.nextInt();
}

//Create Student

Student s=new Student(name, USN, marks, credits);

s.setGrades();
s.setSGPA();
s.display();

sc.close();
}
```

ActivitiesTerminal

Oct 24 10:54

bmsce@bmsce-OptiPlex-3060: ~/1BM23CS313/1BM23CS313-Java/Lab-Prg-2

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Terminal

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Enter name:Shashank Nayak

Enter USN:1bm23cs313

Enter no. of subjects:8

Enter the grade and marks of 8 subjects:

4 95

4 90

3 85

3 95

3 90

1 85

1 90

1 98

Name: Shashank Nayak

USN: 1BM23CS313

Marks: 95 90 85 95 90 85 90 98

Credits: 4 4 3 3 3 1 1 1

SGPA: 9.80

bmsce@bmsce-OptiPlex-3060:~/1BM23CS313/1BM23CS313-Java/Lab-Prg-2\$ |