

**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.**

```
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());
    }
}

```

```
C:\Users\win10\Documents\Java lab programs>javac StudentMain.java
```

```
C:\Users\win10\Documents\Java lab programs>java StudentMain
```

```
Enter student details
```

```
USN:
```

```
1BM19CS100
```

```
Name:
```

```
Niharika
```

```
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:1BM19CS100
```

```
Name:Niharika
```

```
Marks in each subject:
```

```
Subject 1:77
```

```
Subject 2:78
```

```
Subject 3:74
```

```
Subject 4:75
```

```
Subject 5:77
```

```
SGPA: 8.0
```