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LAB 2:

Q. Develop a JAVA program to create a class student with members usn, name, an array credits and an array mark. Include methods to accept and display details and a method to calculate SGPA of a student.

A.

```
import java.util.Scanner;
class Student
{
    String name;
    String usn;
    int credits[] = new int[5];
    int gradePoints[] = new int gradePoints[5];
    double marks[] = new double[5];
    int i;
    int total_credits = 0;
    int sgpa;
    Scanner in = new Scanner(System.in);

    void getDetails()
    {
        System.out.println("Enter the Name of the Student:");
        name = in.nextLine();
        System.out.println("Enter the USN of the Student:");
        usn = in.nextLine();
        System.out.println("Enter the credits in the subject:");
        for (i = 0; i < 5; i++)
        {
            credits[i] = in.nextInt();
            total_credits = total_credits + credits[i];
        }
    }
}
```


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```
System.out.println("Enter the marks in the subjects (0-100):");  
for(i=0; i<5; i++)  
{
```

```
    marks[i] = in.nextInt Double();
```

```
}
```

```
}
```

```
void displaydetails  
{
```

```
    System.out.println("Student Name:" + name);
```

```
    System.out.println("Student USN:" + usn);
```

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

```
    {
```

```
        System.out.println("Subject " + (i+1) + " -> Marks  
        scored : " + marks[i] + " Credits : " + credits[i]);
```

```
    }
```

```
    System.out.println("SGPA : " + (double) gpa / total-  
    credits);
```

```
}
```

```
void gpaC()  
{
```

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

```
    {
```

```
        if(marks[i] >= 91 && marks[i] <= 100)
```

```
            grade points[i] = 10;
```

```
        else if (marks[i] >= 81)
```

```
            grade points[i] = 9;
```

```
        else if (marks[i] >= 71)
```

```
            grade points[i] = 8;
```

```
        else if (marks[i] >= 61)
```

```
            grade points[i] = 7;
```

```
        else if (marks[i] >= 51);
```


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```
        gradePoints[i] = 6;
    else if (marks[i] >= 41)
        gradePoints[i] = 5;
    else if (marks[i] > 0 && marks[i] < 40)
        gradePoints[i] = 0;
    gpa = gpa + (gradePoints[i] * credits[i]);
}
}
```

```
class Lab2
{
    public static void main(String args[])
    {
        Student std1 = new Student();
        std1 = getDetails();
        std1 = sgpa();
        std1 = displayDetails();
    }
}
```

OUTPUT :

Enter Name of the Student : KIRAN
Enter the USN of Student : IBM19CS299
Enter Credits in the Subjects : 5 5 5 5 4
Enter Marks in the Subjects (0-100) : 78 86 87 92 93
Student Name: KIRAN Student USN: IBM19CS199
Subject 1 -> Marks scored: 78.0 Credit: 5
Subject 2 -> Marks scored: 86.0 Credit: 5
Subject 3 -> Marks scored: 87.0 Credit: 5
Subject 4 -> Marks scored: 92.0 Credit: 5
Subject 5 -> Marks scored: 93.0 Credit: 4
SGPA : 9.166666666666