

Q. Develop a Java program to create a class Student with members USN, name, an array credits and an array marks.

```

Sol: import java.util.Scanner;
class Subject
{
    int SubjectMarks;
    int Credits;
    int grade;
}
Public class Student
{
    Subject[] Subject;
    String name;
    String USN;
    double sgpa;
    Scanner S;

    Student()
    {
        int i;
        Subject = new Subject[9];
        for (i=0; i<9; i++)
            Subject[i] = new Subject();
        S = new Scanner(System.in);
    }

    public void getStudentDetails()
    {
        System.out.println("Enter Name:");
        name = S.nextLine();
        System.out.println("Enter USN:");
        USN = S.nextLine();
    }
}

```


}

```
public void getMarks()
```

```
{  
    for (int i=0; i<8; i++)
```

```
{  
        System.out.println("Enter marks for  
        Subject " + (i+1) + ":");
```

```
        Subject[i].SubjectMarks = S.nextInt();
```

```
        System.out.println("Enter Credits for  
        Subjects " + (i+1) + ":");
```

```
        if (Subject[i].SubjectMarks > 100)
```

```
{  
            System.out.println("Invalid marks  
            entered");
```

```
            i--;
```

```
}
```

```
else if (Subject[i].SubjectMarks >= 90)
```

```
{  
    Subject[i].grade = 10;
```

```
}
```

```
else if (Subject[i].SubjectMarks >= 80)
```

```
{  
    Subject[i].grade = 9;
```

```
}
```

```
else if (Subject[i].SubjectMarks >= 70)
```

```
{  
    Subject[i].grade = 8;
```

```
}
```

```
else if (Subject[i].SubjectMarks >= 60)
```

```
{  
    Subject[i].grade = 7;
```

```
}
```



```
else if (Subject [i].Subject Marks >= 50)
```

```
{
    Subject [i].grade = 'B';
}
```

```
else if (Subject [i].Subject Marks >= 40)
```

```
{
    Subject [i].grade = 'C';
}
```

```
}
```

```
public void computeSGPA()
```

```
{
```

```
double total Credits = 0;
```

```
double total Grade Points = 0;
```

```
for (int i = 0; i < 8; i++)
```

```
{
    total Credits += Subject [i].credits;
```

```
total Grade Points += Subject [i].grade *
    Subject [i].credits;
```

```
}
```

```
SGPA = total Grade Points / total Credits;
```

```
public static void main (String [] args)
```

```
{
    Student s1 = new Student ();
```

```
s1.getStudentDetails ();
```

```
s1.getMarks ();
```

```
s1.computeSGPA ();
```

```
System.out.println ("Name : " + s1.name);
```

```
System.out.println ("USN : " + s1.usn);
```

```
System.out.println ("SGPA : " + s1.sgpa);
```

```
}
```

```
}
```


Output:-

Enter Name:

Prayjwal Kk

Enter USN:

181922CS199

Enter Marks for Subject 1:

89

Enter Credits for Subject 1:

4

Enter Marks for Subject 2:

86

Enter Credits for Subject 2:

4

Enter Marks for Subject 3:

79

Enter Credits for Subject 3:

4

Enter ^{Marks} Credits for Subject 4:

90

Enter Credits for Subject 4:

3

Enter Marks for Subject 5:

93

Enter Credits for Subject 5:

3

Enter Marks for Subject 6:

91

Enter Credits for Subject 6:

3

Enter ^{Marks} Credits for Subject 7:

87

Enter Credits for Subject 7:

2

Enter Marks for Subject 8:

98

Enter Credits for Subject 8:

1

Name: Praywal KK

USN: 1B1622CS199

SGPA: 9.25

for
19/12/23