

```
1 import java.util.Scanner;
2 class Student{
3     String name;
4     String USN;
5     int sem;
6
7     void getData()
8     {
9         Scanner ss=new Scanner(System.in);
10        System.out.print("Enter the name of the student : ");
11        name=ss.nextLine();
12        System.out.print("Enter the USN of the student : ");
13        USN=ss.nextLine();
14        System.out.print("Enter the semester of the student : ");
15        sem=ss.nextInt();
16    }
17    void printData()
18    {
19        System.out.println("Name : "+name);
20        System.out.println("USN : "+USN);
21        System.out.println("Semester : "+sem);
22    }
23 }
24
25 class Test extends Student{
26     int cie[] = new int[5];
27     int credits[] = new int[5];
28
29     void getciemarks()
30     {
31         Scanner ss=new Scanner(System.in);
32         System.out.println("Enter the credits and cie marks for : ");
33         for(int i=0;i<5;i++)
34         {
35             System.out.print("Subject "+(i+1)+" : ");
36             credits[i]=ss.nextInt();
37             cie[i]=ss.nextInt();
38         }
39     }
40 }
```

```
38     }
39 }
40 int ciemarks(int i)
41 {
42     return cie[i];
43 }
44 int credits(int i)
45 {
46     return credits[i];
47 }
48 }
49
50 class Exams extends Test{
51     int see[] = new int[5];
52
53     void getseemarks()
54     {
55         Scanner ss=new Scanner(System.in);
56         System.out.println("Enter the SEE marks for: ");
57         int i;
58         for(i=0;i<5;i++)
59         {
60             System.out.print("Subject "+(i+1)+" : ");
61             see[i]=ss.nextInt();
62         }
63     }
64     int seemarks(int i)
65     {
66         return see[i];
67     }
68 }
69
70
71 class Result extends Exams{
72     double sgpa = 0;
73
74     Result()
75     {
76         getciemarks():
```

```
76     getciemarks();
77     getseemarks();
78 }
79 void calculateresult()
80 {
81     sgpa=0;
82     double temp=0;
83     double totalcredits=0;
84     for(int i=0;i<5;i++)
85     {
86         temp = 0;
87         temp=temp+ciemarks(i);
88         temp=temp+(seemarks(i)/2);
89         totalcredits=totalcredits+credits(i);
90         sgpa=sgpa+((temp*credits(i))/100);
91     }
92     sgpa=(sgpa/totalcredits)*10;
93 }
94 void printresult(int i)
95 {
96     System.out.println("SGPA : "+sgpa);
97 }
98 }
99
100 public class Week7{
101     public static void main(String args[])
102     {
103         Scanner ss=new Scanner(System.in);
104         System.out.print("Enter the number of students : ");
105         int n=ss.nextInt();
106         Student s[] = new Student[n];
107         Result r[]=new Result[n];
108         System.out.println("Enter the details for : ");
109         for(int i=0;i<n;i++)
110         {
111             System.out.println("Student "+ (i+1) + " : ");
112
113             s[i] = new Student();
114             s[i].setData();
```

```
88         temp=temp+(credits(i)/10);
89         totalcredits=totalcredits+credits(i);
90         sgpa=sgpa+((temp*credits(i))/100);
91     }
92     sgpa=(sgpa/totalcredits)*10;
93 }
94 void printresult(int i)
95 {
96     System.out.println("SGPA : "+sgpa);
97 }
98 }
99
100 public class Week7{
101     public static void main(String args[])
102     {
103         Scanner ss=new Scanner(System.in);
104         System.out.print("Enter the number of students : ");
105         int n=ss.nextInt();
106         Student s[] = new Student[n];
107         Result r[]=new Result[n];
108         System.out.println("Enter the details for : ");
109         for(int i=0;i<n;i++)
110         {
111             System.out.println("Student "+ (i+1) + " : ");
112
113             s[i] = new Student();
114             s[i].getData();
115             r[i]=new Result();
116             r[i].calculateresult();
117         }
118         System.out.println("-----Student Results-----");
119         for(int i=0;i<n;i++)
120         {
121             System.out.println("STUDENT "+(i+1));
122             s[i].printData();
123             r[i].printresult(i);
124         }
125     }
126 }
```

```
dhruvdubey@Dhruvs-MacBook-Air JavaLab % java Week7
```

```
Enter the number of students : 2
```

```
Enter the details for :
```

```
Student 1 :
```

```
Enter the name of the student : Dhruv Dubey
```

```
Enter the USN of the student : 1BMCS1456
```

```
Enter the semester of the student : 3
```

```
Enter the credits and cie marks for :
```

```
Subject 1 : 5 44
```

```
Subject 2 : 4 47
```

```
Subject 3 : 4 36
```

```
Subject 4 : 4 49
```

```
Subject 5 : 3 38
```

```
Enter the SEE marks for:
```

```
Subject 1 : 96
```

```
Subject 2 : 84
```

```
Subject 3 : 87
```

```
Subject 4 : 78
```

```
Subject 5 : 91
```

```
Student 2 :
```

```
Enter the name of the student : Kartik Kumar
```

```
Enter the USN of the student : 1BMCS14574
```

```
Enter the semester of the student : 3
```

```
Enter the credits and cie marks for :
```

```
Subject 1 : 5 38
```

```
Subject 2 : 4 37
```

```
Subject 3 : 3 28
```

```
Subject 4 : 4 50
```

```
Subject 5 : 4 33
```

```
Enter the SEE marks for:
```

```
Subject 1 : 88
```

```
Subject 2 : 76
```

```
Subject 3 : 75
```

```
Subject 4 : 92
```

```
Subject 5 : 71
```

```
-----Student Results-----
```

```
STUDENT 1
```

```
Name : Dhruv Dubey
```

```
Subject 2 : 4 47
Subject 3 : 4 36
Subject 4 : 4 49
Subject 5 : 3 38
Enter the SEE marks for:
Subject 1 : 96
Subject 2 : 84
Subject 3 : 87
Subject 4 : 78
Subject 5 : 91
Student 2 :
Enter the name of the student : Kartik Kumar
Enter the USN of the student : 1BMCS14574
Enter the semester of the student : 3
Enter the credits and cie marks for :
Subject 1 : 5 38
Subject 2 : 4 37
Subject 3 : 3 28
Subject 4 : 4 50
Subject 5 : 4 33
Enter the SEE marks for:
Subject 1 : 88
Subject 2 : 76
Subject 3 : 75
Subject 4 : 92
Subject 5 : 71
-----Student Results-----
STUDENT 1
Name : Dhruv Dubey
USN : 1BMCS1456
Semester : 3
SGPA : 8.665
STUDENT 2
Name : Kartik Kumar
USN : 1BMCS14574
Semester : 3
SGPA : 7.805
dhruvdubey@Dhruvs-MacBook-Air JavaLab %
```