

Lab 2 : Develop a java program to create a class student with members user, name, an array credits & an array marks. Include methods to display & accept details & a method to calculate SGPA of a student.

$$SGPA = \frac{\sum (\text{course credits} * \text{grade points})}{\sum (\text{course credits})}$$

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

```
class Subject
```

```
{
```

```
    int subMarks;
```

```
    int credits;
```

```
    int grade;
```

```
}
```

```
class Student
```

```
{
```

```
    Subject subject [7];
```

```
    String name;
```

```
    String user;
```

```
    double sgpa;
```

```
    Scanner s;
```

```
    int i;
```

```
    Student ()
```

```
{
```

```
        int i;
```

```
        subject = new Subject [8];
```

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

```
            subject [i] = new Subject ();
```

```
        s = new Scanner (System.in);
```

```
}
```

```
void getStudentDetails ( )
{
```

```
    System.out.println ("Enter your name : ");
    name = s.next();
    System.out.println ("Enter credits of
    Subject " + (i+1) + " : ");
    System.out.println ("Enter your USN : ");
    usn = s.next();
}
```

```
void getMarks ( )
{
```

```
    for ( i = 0 ; i < 8 ; i++ )
    {
        System.out.println ("Enter marks of
        subject " + (i+1) + " : ");
        subject [i].subMarks = s.nextInt();
        System.out.println ("Enter credits of
        subject " + (i+1) + " : ");
        subject [i].credits = s.nextInt();
        subject [i].grade = ( subject [i].
                                subMarks / 10 ) + 1;
    }
}
```

```
void compute SGPA ( )
{
```

```
    int offscore = 0 ;
    int totalcredits = 0 ;
    for ( i = 0 ; i < 8 ; i++ )
    {
        offscore += subject [i].grade
                    * subject [i].credits;
        totalcredits += subject [i].credits;
    }
}
```

SGPA = (double) effscore / (double) totalcredits ;

}

class main

{

public static void main (String args [])

{

Student s1 = new Student ();

s1. getStudentDetails ();

s1. getMarks ();

s1. compute SGPA ();

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

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

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

}

}

Output :

Enter your name :

saswat

Enter your USN :

236

Enter marks of subject 1 :

90

Enter credits of subject 1 :

4

Enter marks of subject 2 :

91

Enter credits of subject 2 :

4

Enter marks of subject 3 :

92

Date:
Enter credits of subjects 3:

3

Enter marks of subject 4:

87

Enter credits of subject 4:

3

Enter marks of subject 5:

97

Enter credits of subject 5:

3

Enter marks of subject 6:

95

Enter credits of subject 6:

1

Enter marks of subject 7:

86

Enter credits of subject 7:

1

Enter ~~marks~~ of subject 8:

94

Enter credits of subject 8:

1

Name: Sanjiv

USN: 236

SGPA: 9.80

Done
19-12-17