

Lab - 2

Develop a Java program to create a class Student with numbers 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.Scanner;  
class Sgpa  
{ String usn, name; int credits[] = new int[10]; float  
marks[] = new float[100];  
void sgpa()  
{  
int accept()  
{ Scanner sc = new Scanner(System.in);  
System.out.println("Enter the USN and Name of student:");  
usn = sc.next();  
name = sc.nextInt();  
System.out.println("Enter the number of subjects:");  
int n = sc.nextInt();  
System.out.println("Enter the credits of the subject  
followed by marks obtained in the subject:");  
for (int i = 0; i < n; i++)  
{ credits[i] = sc.nextInt();  
marks[i] = sc.nextInt();  
}  
return n;  
}
```

```
void display (int n)
```

```
{ System.out.println("Name of the student" + name +  
"In USN of the student:" + usn);  
for (int i = 0; i < n; i++)  
System.out.println("Credits of subject:" + credits[i] +  
"It Marks of subject" + ":" + marks[i]);  
}
```

```
double sgpa_Cal (int n)
```

```
{ double agg = 0.0, g = 0.0; int crsum = 0;  
for (int i = 0; i < n; i++)  
{ if (marks[i] >= 90)  
    cr = 10;  
else if  
    cr = 9;  
else if  
    cr = 8;  
else if  
    cr = 7;  
else if  
    cr = 6;  
else if  
    cr = 5;  
else  
    cr = 0;  
agg += credit[i] * cr;  
crsum += credits[i];  
g = (agg / crsum);  
}  
return g;
```

class Sqpa_main

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

```
    Sqpa a = new Sqpa ();
    int n = a.accept ();
    a.display (n);
    System.out.println ("SGPA: " + (a.sqpa_Cal (n)));
}
```

}

Output

Enter the USN and name of the student:

IBM19CS190

Adrian

Enter the number of subjects:

2

Enter the credits of the subject followed by marks obtained:

3

88

Name of the Student = Adrian

USN of the Student = IBM19CS190

Credits of subject = 4 Marks of subject = 98.0

Credits of subject = 3 Marks of subject = 88.0

SGPA : 9.571428571428571

$$\frac{(98 \times 4) + (88 \times 3)}{4+3} = \frac{392 + 264}{7} = \frac{656}{7} = 9.371428571428571$$

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