

Lab-2

Ques: Develop a java program to create a class with members USN, 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.*;  
class Student  
{  
    private String USN;  
    private String name;  
    private int n;  
    private double SGPA = 0;  
    private int totalCredits = 0;  
    private int credits[];  
    private double marks[];  
    Scanner in = new Scanner(System.in);
```

```
void accept()  
{
```

```
    System.out.println("Enter Full name of the  
                        student");
```

```
    name = in.nextLine();
```

```
    System.out.println("Enter USN of the student:");
```

```
    USN = in.nextLine();
```

```
    System.out.println("Enter number of subjects");
```

```
    n = in.nextInt();
```

```
    credits = new int[n];
```

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```
marks = new double [n];
System.out.println("Enter details of the subjects: ");
for (int i = 0; i < n; i++)
{
    System.out.println("Enter the credits for subject"
                        + (i + 1));
    credits[i] = in.nextInt();
    System.out.println("Enter the marks for subject"
                        + (i + 1));
    marks[i] = in.nextInt();
    Calculate(credits[i], marks[i], i);
}
}

void calculate (int credit, double marks, int j)
{
    totalcredits = totalcredits + credit;
    if (marks >= 90 && marks <= 100)
    {
        SGPA = SGPA + (10 * credit);
    }
    else if (marks >= 80 && marks <= 89)
    {
marks
        SGPA = SGPA + (9 * credit);
    }
    else if (marks >= 70 && marks <= 79)
    {
        SGPA = SGPA + (8 * credit);
    }
}
```

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```
}  
else if (marks >= 60 && marks <= 69)  
{  
    SGPA = SGPA + (7 * credit);  
}  
else if (marks >= 50 && marks <= 59)  
{  
    SGPA = SGPA + (6 * credit);  
}  
else if (marks >= 40 && marks <= 49)  
{  
    SGPA = SGPA + (5 * credit);  
}  
else  
{  
    system.out.println("Failed in Subject " + (j+1));  
}  
}  
  
void display()  
{  
    system.out.println("Details of the Student");  
    system.out.println("USN: " + USN);  
    system.out.println("Name: " + name);  
    system.out.println("SGPA of Student: " + (SGPA /  
totalcredit));  
}  
  
class main  
{  
    Student s1 = new Student();
```

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```
sl.accept()  
sl.display()  
{
```

```
}
```

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Output:

Enter full name of student :

Bhavya Singh

Enter USN of the student :

IBM19CS037

Enter no. of subjects :

3

Enter details of subjects

Enter credits for subject 1 :

5

Enter marks for subject 1 :

95

Enter credits for subject 2 :

4

Enter marks for subject 2 :

90

Enter credits for subject 3 :

3

Enter marks for subject 3 :

89

Details of student:

USN: IBM19CSD37

Name: Bhavya Singh

SGPA of student: 9.75