

12/23

Lab → 2

Date

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Develop a Java program to create a class Student with members USN, name, an array Credits and array marks, include method to except and display details, and a method to calculate SGPA of a student.

```
import java.util.*;  
public class main {  
    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);  
    }  
}
```

```
class Subject {  
    int Subjectmarks;  
    int Credits;  
    int Grades;  
}
```


Class Student

{

Subject subject[];

String name;

String USN;

double SGPA;

Scanner S;

Student() {

{

subject = new Subject[9];

for (int i = 0; i < 9; i++)

{

subject[i] = new Subject();

}

S = new Scanner(System.in);

}

~~void get Student Details()~~

{

System.out.println("Enter your name:");

this.name = S.nextLine();

System.out.println("Enter your USN:");

this.USN = S.next();

}


```
void getStudentDetails()
{
```

```
    System.out.println("Enter your name:");
    this.name = s.nextLine();
    System.out.println("Enter your USN:");
    this.usn = s.next();
}
```

```
void getMarks()
{
```

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

```
        System.out.println("Enter the marks of  
the " + (i + 1) + " Subject");
```

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

```
        System.out.println("Enter the credits of  
the " + (i + 1) + " Subject");
```

```
        Subject[i].Credits = s.nextInt();
```

```
        Subject[i].grades = (Subject[i].Subject  
marks / 10) + 1;
```

```
        if (Subject[i].grades > 10)
        {
```

```
            Subject[i].grades = 10;
```

```
        }
```

```
        if (Subject[i].grades < 4)
        {
```



```
Subject[i].grades = 0;
```

```
}
```

```
}
```

```
}
```

```
void computeSGPA()
```

```
{
```

```
    int sum = 0;
```

```
    int totalCredits = 0;
```

```
    for (int i = 0; i < 9; i++)
```

```
{
```

```
        sum += (Subject[i].grades * Subject[i].credits);
```

```
        totalCredits += Subject[i].credits;
```

```
}
```

```
    this.SGPA = (double) sum / totalCredits;
```

```
}
```

```
}
```


Output

Enter your USN:

1bm22CS258

Enter the mark of 1 sub - 85

Enter the Credit of 1 sub - 3

Enter the mark of 2 Subject - 75
Credits - 3

Enter the mark of 3 Subject - 82
Credits - 4

Enter the marks of 4 Subject - 71
Credits - 3

Enter the marks of 5 Subject - 89
Credits - 4

Enter the marks of 6 Subject - 71
Credits - 3

Enter the marks of 7 Subject - 75
Credits - 3


Enter the marks of 8 subjects $\rightarrow 45$
Credits $\rightarrow 3$

Name: Shiv

USN

Name: LBm2209258

SGPA: 7.2036


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