

Lab: 2

UR 19-12-23

DOMS

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Develop a Java program to create a class Student with members usn, name, an array credits and an array marks. Include method to accept and display details and a method to calculate sgpa of a student.

```
import java.util.Scanner;  
class Student {
```

```
    String name;
```

```
    String usn;
```

```
    double sgpa;
```

```
    Subject subject[];
```

```
    Scanner s;
```

```
    Student() {
```

```
        int i;
```

```
        subject = new Subject[9];
```

```
        for (i = 0; i < 9; 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 your USN:");
```

```
        usn = s.next();
```

```
    }
```



```
void getMarks() {  
    for (int i = 0; i < 9; i++) {  
        System.out.println("Enter Marks for  
            subject " + (i+1) + ": ");  
        subject[i].subjectMarks = s.nextInt();  
        System.out.println("Enter credits for  
            subject " + (i+1) + ": ");  
        subject[i].credits = s.nextInt();  
  
        subject[i].grade = (subject[i].subject-  
            Marks / 10) + 1;  
  
        if (subject[i].grade == 11) {  
            subject[i].grade = 10;  
        }  
        if (subject[i].grade <= 4) {  
            subject[i].grade = 0;  
        }  
    }  
}
```

```
void computeSGPA() {  
    int effectiveScore = 0;  
    int totalCredits = 0;  
  
    for (int i = 0; i < 9; i++) {  
        effectiveScore += (subject[i].  
            grade * subject[i].credits);  
    }  
}
```



```
totalCredits += subject[i].credits;  
}
```

```
SGPA = (double) effectiveScore /  
        (double) totalCredits;
```

```
}
```

```
}
```

```
class Subject {  
    int subjectMarks;  
    int credits;  
    int grade;  
}
```

```
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);
```

```
    }
```

```
}
```


Output:

```
c:\Users\Admin\Desktop\2023BMS02541>  
javac Main.java
```

```
c:\Users\Admin\Desktop\2023BMS02541>  
java Main
```

Enter your Name:

Shreyo

Enter your USN:

2023BMS02541

Enter marks for subject 1:

98

Enter credits for subject 1:

3

Enter marks for subject 2:

78

Enter credits for subject 2:

2

Enter marks for subject 3:

78

Enter credits for subject 3:

3

Enter marks for subject 4:

98

Enter ^{credits} ~~marks~~ for subject 4:

4

Enter marks for subject 5:

85

Enter credits for subject 5:

1

Enter marks for subject 6:

56

Enter ~~marks~~ credits for subject 6:

1

Enter marks for subject 7:

85

Enter credits for subject 7:

3

Enter marks for subject 8:

78

Enter credits for subject 8:

2

Enter marks for subject 9:

96

Enter credits for subject 9:

4

Name : Shreya

USN : 2023BMS02541

SGPA : 9.043478260869565