

19/12/23
24

LAB-02

Page No. _____
Date: / /

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

```
class subject {  
    int subjectMarks, credits, grade; }  
}
```

```
class Student {  
    String name;  
    String usn;  
    double SGPA;  
    Scanner s;  
    subject subjects[];
```

```
    Student() {  
        int i;  
        subjects = new subject[9];  
        for (i=0; i<8; i++) {  
            subjects[i] = new subject();  
            s = new Scanner(System.in);  
        }
```

```
    public void getStudentDetails() {  
        System.out.println("Enter name:");  
        name = s.nextLine();  
        System.out.println("Enter usn:");  
        usn = s.nextLine();  
    }
```

```

public void getMarks() {
    for (int i = 0; i < 8; i++) {
        System.out.println("Enter marks of  
subject " + (i + 1) + " (0-100);");
        subjects[i].subjectMarks = s.nextInt();

        if (subjects[i].subjectMarks >= 40 &&
            subjects[i].subjectMarks <= 100) {
            subjects[i].grade = calculateGrade(
                subjects[i].subjectMarks);
        } else {
            System.out.println("Invalid Marks");
        }
        System.out.println("Enter credits");
        subjects[i].credits = s.nextInt();
    }
}

```

```

public int calculateGrade(int marks) {
    if (marks >= 90) {
        return 10;
    } else if (marks >= 70 && marks <= 80) {
        return 9;
    } else if (marks >= 60 && marks <= 70) {
        return 8;
    } else {
        return 7;
    }
}

```



```

public void computeSGPA() {
    int totscore = 0;
    int totcred = 0;
    for (int i = 0; i < 8; i++) {
        totscore += subjects[i].grade * subjects[i].credits;
        totcred += subjects[i].credits;
    }
    SGPA = (double) totscore / (double) totcred;
}

```

```

public class Stud {
    public classstatic void main(String args[]) {
        Student s1 = new Student();
        s1.getStudentDetails();
        s1.getStudentMarks();
        s1.computeSGPA();
        System.out.println("Name: " + s1.name);
        System.out.println("SGPA: " + s1.SGPA);
    }
}

```

OUTPUT

Enter Name: Nid
Enter USN: 123
Enter Subject 1 marks = 100
Enter credits = 4
Enter Subject 2 marks = 100
Enter credits = 4
Enter Subject 3 marks = 100
Enter credits = 3
Enter Subject 4 marks = 100
Enter credits = 3
Enter Subject 5 marks = 100
Enter credits = 3
Enter Subject 6 marks = 100
Enter credits = 3
Enter Subject 7 marks = 100
Enter credit = 1
Enter Subject 8 marks = 100
Enter credit = 1

Name = Nid
USN = 123
SGPA = 10

19/12/2021

```
Enter student name:
John Doe
Enter Student USN:
123456
Enter marks of subject1:
85
Enter credits:
4
Enter marks of subject2:
70
Enter credits:
3
Enter marks of subject3:
55
Enter credits:
3
Enter marks of subject4:
92
Enter credits:
4
Enter marks of subject5:
75
Enter credits:
3
Enter marks of subject6:
60
Enter credits:
4
Enter marks of subject7:
78
Enter credits:
3
Enter marks of subject8:
88
Enter credits:
2

Student name: John Doe
Student USN: 123456
Student SGPA: 8.34
```