

17/12/23

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

$$SGPA \text{ formula} = \frac{\sum [(course \ credits)(Grade \ Points)]}{\sum [(course \ credits)]}$$

```
import java.util.Scanner;
class Subject {
    int subjectMarks;
    int credits;
    int grade;
}
class Student {
    String name;
    String usn;
    double sgpa;
    Scanner s;
    Subject subject[];

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

    void getMarks() {
        int i;
        for (i = 0; i < 9; i++) {
            System.out.println("Enter marks: ");
        }
    }
}
```

```

        int marks = s.nextInt();
        System.out.println("Enter the credits:");
        int credits = s.nextInt();
        subject[i].subjectMarks = marks;
        subject[i].credits = credits;
        subject[i].grade = (subject[i].
            subjectMarks / 10) + 1;
        if (subject[i].grade == 11)
        {
            subject[i].grade = 10;
        }
        if (subject[i].grade < 4)
        {
            subject[i].grade = 0;
        }
    }
}

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

void computeSGPA()
{
    int i;
    int totalcredits = 0;
    int totalgradePoints = 0;
    for (i = 0; i < 9; i++)
    {
        totalcredits += subject[i].credits;
        totalgradePoints += subject[i].grade *
            subject[i].credits;
    }
    sgpa = (float) totalgradePoints / totalcredits;
    System.out.println("SGPA = " + sgpa);
}

```



```

}
}
class Main {
    public static void main (String[] args) {
        Student s1 = new Student();
        s1 = getStudentDetails();
        s1 = getMarks();
        s1 = computeSGPA();
    }
}

```

Output :

Enter the name :

chashank

Enter the usn :

1bmads254

enter marks :

74

enter the credits :

4

enter marks :

90

enter the credits :

4

enter marks :

88

enter the credits :

3

enter the marks :

73

enter the credits :

3

enter marks :

81

enter the credits :

3

enter marks :

86

enter the credits :

1

enter marks :

94

enter the credits :

1

enter marks : 0

enter credits : 0

SG PA = 8.899999618530273

Done by Shashank C IBM21CS254

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