Program 2

Develop a Java program to create a class Student with members usn, name, 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.Scanner;


public class SGPA_Calculator {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);

      // Input the number of subjects
      System.out.print("Enter the number of subjects: ");
      int numSubjects = scanner.nextInt();

      // Arrays to store credits and grades
      double[] credits = new double[numSubjects];
      double[] grades = new double[numSubjects];

      // Input credits and grades
      for (int i = 0; i < numSubjects; i++) {
         System.out.print("Enter credit hours for subject " + (i + 1) + ": ");
         credits[i] = scanner.nextDouble();
         System.out.print("Enter grade for subject " + (i + 1) + " (on a scale of 0 to 10): ");
         grades[i] = scanner.nextDouble();
      }

      // Calculate SGPA
      double totalCredits = 0;
      double weightedGradesSum = 0;

      for (int i = 0; i < numSubjects; i++) {
         weightedGradesSum += grades[i] * credits[i];
```

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

        double sgpa = weightedGradesSum / totalCredits;

        // Display the SGPA
        System.out.printf("Your SGPA is: %.2f%n", sgpa);

        scanner.close();
    }
}
```

```
C:\1BM23CS333>javac Book.java

C:\1BM23CS333>java SGPA_Calculator
Enter the number of subjects: 4
Enter credit hours for subject 1: 4
Enter grade for subject 1 (on a scale of 0 to 10): 9
Enter credit hours for subject 2: 3
Enter grade for subject 2 (on a scale of 0 to 10): 10
Enter credit hours for subject 3: 4
Enter grade for subject 3 (on a scale of 0 to 10): 10
Enter credit hours for subject 4: 2
Enter grade for subject 4 (on a scale of 0 to 10): 9
Your SGPA is: 9.54

C:\1BM23CS333>
```

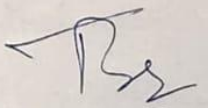
Java program to calculate student SGPA. 3/10/2024

```
import java.util.Scanner;
public class SGPA_calc {
    public static void main (String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the no of subjects: ");
        int subj = scanner.nextInt();
        double[] credits = new double[subj];
        double[] grades = new double[subj];

        for (int i=0; i<subj; i++) {
        s.o.p("Enter credit hours for subject "+(i+1)+": ");
        credits[i] = scanner.nextDouble();
        s.o.p(" Enter grade for subject "+(i+1)+"(on a scale of 0
                to 10): ");
        grades[i] = scanner.nextDouble();
    }
    double totalcredits = 0;
    double weightedgradesum = 0;
    for (int i=0; i<subj; i++) {
        weightedgradesum += grades[i] * credits[i];
        totalcredits += credits[i];
    }
    double sgpa = weightedgradesum / totalcredits;
    s.o.p ("Your SGPA is: %.2f%n", sgpa);
    scanner.close();
}
```

Output:

```
Enter the number of subjects : 4
Enter credit for subject 1 : 4
Enter grade for subject 1 : 10
Enter credit for subject 2 : 3
Enter grade for subject 2 : 9
Enter credit for subject 3 : 2
Enter grade for subject 3 : 9
Enter credit for subject 4 : 1
Enter grade for subject 4 : 10
Your SGPA is : 9.50
```



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