30/10/2024

Q. Develop a java program to create a class student with members, usn, name, an array credits and an array marks. Include methods to accepts and display details.

```java
import java.util.Scanner

class Student {
    string usn;
    string name;
    int[] credits;
    int marks;
    void accepting details of student() {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter USN: ");
        USN = sc.nextline();
        System.out.print("Enter name:");
        name = sc.nextline();
        System.out.print("Enter no of subjects:");
        int n = sc.nextInt();
        Credits = new Int[n];
        for(int i = 0; i < m; i++) {
            System.out.print("Enter credits for sub" +
            (i+1) + ":");
            marks[i] = sc.nextInt();
        }
    }

    void displayDetails() {
        System.out.println("USN: " + usn);
        USN = sc.nextline
        System.out.println("Name: " + name);
        System.out.println("Credit and Marks:");
```

```
    for(int i=0; i < credits.length; i++){
        System.out.println("Subject"+(i+1)+":");
        credits = "+credits[i] + "marks = +
        marks[i]);
    }
}

double calculateSGPA(){
    int totalCredits = 0;
    double weightedSum = 0;
    for(int i=0; i < credits.length; i++){
        weightedSum += marks[i] * credits[i];
        totalCredits += credits[i];
    }
    return weightedSum / totalCredits
}

public static void main(String[] args){
    Student student = new Student();
    student.acceptDetails();
    student.displayDetails();
    double sgpa = student.calculateSGPA();
    System.out.println("SGPA: " + sgpa);
}
```

Output:-> Enter the number of students: 1
Enter USN: 1BM22CS299
Enter Name: Sanchit Mehra
Enter number of subjects: 3
Enter the credits for subject 1: 4
Enter the marks for subject 1: 89
Enter the credits for subject 2: 3
Enter the marks for subject 2: 94
Enter the credits for subject 3: 1
Enter the marks for subject 3: 97

USN : 1BM23CS299
Name: Sanchit Mehta
Credits and marks:
Subject1 : credits =4 , marks = 89
Subject 2: Credits = 3 , marks = 94
Subject 1 : Credits = 1 , marks = 97
   SGPA : 9.8