19/12/23

1) 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 details and a method to calculate SGPA of a student display

SGPA → for one sem

Formula for calculate $(Credits * Grade points) / course credits$

CGPA = " for all sem

$$Az9-12-23$$

grade = $(marks/10) + 1$

```java
import java.util.*;
class Subject {
    int SubjectMarks;
    int Credits; }

Class Student {
    Subject subject[];
    String name;
    String USN;
    double SGPA;
    Scanner sc = new Scanner(System.in);

    Student() {
    int i;
    Subject = new Subject[8];
    for (i=0; i<8; i++) {
    Subject[i] = new Subject();
    }
    void getStudentDetails() {
        System.out.println("Enter your name");
        name = sc.nextLine();
        System.out.println(" USN");
        USN = sc.nextLine()
    }
```

```java
public void getmarks(){
    for(int i=0; i<8; i++){
        System.out.println(" Enter the marks for "+(i+1));
        subject[i].SubjectMarks = sc.nextInt();
        System.out.print ("Enter the credits of " +(i+1) + "
        subject:");
        subject[i].credits = sc.nextInt();
        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;
        }
    }
}

public void computeSGPA(){
    int effectiveScore = 0;
    int total = 0;
    float SGPA = 0;
    for(int i=0; i<8; i++){
        effectiveScore += (subject[i].credits * subject[i].grade);
        total += subject[i].credits;
    }
    System.out.println(" effective score;"+ effectiveScore);
    SGPA = effectiveScore / total;
    System.out.println("SGPA" + SGPA);
}
```

class javaMain {

Public Static void main (String aggrss[]) {

Student s = new Students();

S.get Student Details();

S. getmarks();

S. ComputeSG PA ();

System.out.println ("name : " + s.name);

System.out.println ("USN :" + S.USN);

}

}

Output :-

Enter the marks of 1 subject 90

Enter the credits of 1 subject 4

Enter the marks of 2 subject 88

Enter the credits of 2 subject 4

Enter the marks of 3 subject 75

Enter the credits of 3 subject 4

Enter the marks of 4 subject 60

Enter the credits of 4 subject 3

Enter the marks of 5 subject 89

Enter the credits of 5 subject 3

Enter the marks of 6 subject 90

Enter the credits of 6 subject 2

Enter the marks of 7 subject 68

Enter the credits of 7 subject 2

Enter the marks of 8 subject 90

Enter the credits of 8 subject 1

Effective Subs: 194

total credits : 23

SGPA : 8.0

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