**PROGRAM TO CALCULATE SGPA**

import java.util.Scanner;

class Student {

String usn;

String name;

int[] credits;

int[] marks;

Student(int n) {

credits = new int[n];

marks = new int[n];

}

void take(Scanner s) {

System.out.println("ENTER NAME: ");

name = s.nextLine();

System.out.println();

System.out.println("ENTER USN: ");

usn = s.nextLine();

for (int i = 0; i < credits.length; i++) {

System.out.print("Subject " + (i + 1) + " Credits: ");

credits[i] = s.nextInt();

System.out.print("Subject " + (i + 1) + " Marks: ");

marks[i] = s.nextInt();

}

}

void display() {

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

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

for (int i = 0; i < credits.length; i++) {

System.out.println("Subject " + (i + 1) + ": Credits=" + credits[i] + ", Marks=" + marks[i]);

}

}

double SGPA() {

double totcre = 0;

double totpt = 0;

for (int i = 0; i < credits.length; i++) {

totcre += credits[i];

int gp = getgp(marks[i]);

totpt+= credits[i] \* gp;

}

return totpt / totcre;

}

// Helper method to convert marks to grade

int getgp(int marks) {

if (marks >= 90) return 10;

else if (marks >= 80) return 9;

else if (marks >= 70) return 8;

else if (marks >= 60) return 7;

else if (marks >= 50) return 6;

else if (marks >= 40) return 5;

else return 0;

}

public static void main(String[] args) {

Scanner s = new Scanner(System.in);

System.out.print("Enter no. of subjects: ");

int n = s.nextInt();

s.nextLine();

Student student = new Student(n);

student.take(s);

student.display();

System.out.println("SGPA: " + student.SGPA());

}

}

OUTPUT:



