**Lab 3**

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**USN : 1BM23CS009**

import java.util.Scanner;

class Student

{

String name;

String usn;

int credits[] = new int[8];

int marks[] = new int[8];

double sgpa=0.0;

double cgpa;

int grade[] = new int[8];

double calculate(int m[], int c[])

{

int j;

double sum = 0.0;

int div = 0;

for (j = 0; j < 8; j++)

{

if (m[j] != 100)

{

grade[j] = (m[j] + 10) / 10;

}

else

{

grade[j] = 10;

}

div = credits[j] + div;

sum = sum + (grade[j] \* credits[j]);

System.out.println("Grade for subject " + (j + 1) + ": " + grade[j]); // error check

}

sgpa = sum / div;

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

return sgpa;

}

double calcgpa(double sgpa1, double sgpa2)

{

cgpa=(sgpa1+sgpa2)/2;

return cgpa;

}

void input()

{

Scanner sc=new Scanner(System.in);

System.out.println("Now enter subject credits for semester:");

int i;

for (i = 0; i < 8; i++)

{

credits[i] = sc.nextInt();

}

System.out.println("Now enter subject marks for semester:");

for (i = 0; i < 8; i++)

{

marks[i] = sc.nextInt();

}

}

public static void main(String args[]) {

Scanner sc1 = new Scanner(System.in);

System.out.println("Enter number of students: ");

int n=sc1.nextInt();

Student obj[]=new Student[n];

int k;

for(k=0;k<n;k++)

{

obj[k]=new Student();

System.out.println("Enter Student name: ");

String name = sc1.next();

System.out.println("Enter Student USN: ");

String usn = sc1.next();

obj[k].input();

System.out.println("Semester 1");

double result = obj[k].calculate(obj[k].marks, obj[k].credits);

System.out.println("1st Semester SGPA for " + obj[k].name + " (" + obj[k].usn + ") is: " + result);

System.out.println("Semester 2");

obj[k].input();

double result2 = obj[k].calculate(obj[k].marks, obj[k].credits);

System.out.println("2nt Semester SGPA for " + obj[k].name + " (" + obj[k].usn + ") is: " + result2);

System.out.println("CGPA for 1st year is : "+obj[k].calcgpa(result,result2));

}

}

}



