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1BM19CS154
Batch - C3

classmate
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Lab Program 2

Develop a Java program to create a class student with members USN, name, an array credits, an array marks. Include methods to accept and display details and a method to calculate SGPA of a student.

Algorithm

Step 1: START

step 2: INPUT n, initialise sum=0, cre=0, i

Step 3: INPUT USN and Name

step 4: INPUT for (i=0
        Repeat for i=0 to n
        INPUT credit
        INPUT marks.
        if (marks >=90) grade = 10.
        elseif (marks >= 80) grade = 9
        else if (marks >= 70) grade = 8
        else if (marks >= 60) grade = 7
        else if (marks >= 50) grade = 6
        else if (marks >= 40) grade = 5
        else if (marks >= 0) grade = 0.
        end else if

Step 5: Repeat for i=0 to n
        sum = sum + (credit * grade).
        cre = cre + credit , sgpa = sum/cre

Step 6: OUTPUT name, USN, cre

step 7: STOP

```java
import java.util.Scanner;

class student {
    String USN;
    String name;
    float [] credits = new float [30];
    float [] marks = new float [30];
    float [] grade = new float [30];
    Scanner ob = new Scanner(System.in);
    void input (int n) {
        for (int i=0; i<n; i++) {
            System.out.println("Enter credit of subject"+(i+1));
            credits[i] = ob.nextFloat();
            System.out.println("Enter marks of subject"+(i+1));
            marks[i] = ob.nextFloat();
            if (marks >=90) { grade[i]=10; }
            else if (marks >=80) { grade[i]=9; }
            else if (marks >=70) { grade[i]=8; }
            else if (marks >=60) { grade[i]=7; }
            else if (marks >=50) { grade[i]=6; }
            else if (marks >=40) { grade[i]=5; }
            else if (marks >=0) { grade[i]=0; } } }
    void output (float credits[], float grade[]; int n) {
        float sum =0, cre =0; sgpa;
        for (int i=0; i<n; i++)
        { sum = sum + (credits[i] * grade[i]);
            cre = cre + credits[i]; }
        sgpa = sum / cre;
        System.out.println(name+" with usn "+usn" your grade
                          is "+ sgpa ");
```

```
class studentsgpa {
Public static void main (String args[]) {
Student    S = new student ();
int n;
Scanner obj = 0 new Scanner (System. in);
System. out. println (" Enter ur usn and name");
S.usn = obj. nextLine();
S. name = obj. nextLine();
System. out. println(" Enter number of subjects");
n = obj. next Int;
S. input (n);
S. output (S. credits, s. grade, n); } }
```

Sample output:
Enter usn and name
IBM19CS154
Shreesha N A
Enter number of subjects
3
Enter credit of 1 subject
2
Enter marks of 1 subject
90
Enter credit of 2 subject
3
Enter marks of 2 subject
85
Enter credit of 3 subject
4
Enter marks of 3 subject
78
Shreesha N A with USN IBM19CS154 your sgpa is 8 77778