19/12/2023

* Lab 2. SGPA calculation.

```
import java.util.Scanner;
class SUBJECT {
    int subjectmarks;
    int credits;
    int grade;
}

class SGPA {
    // Array of objects
    SUBJECT subject[];
    String usn, name;
    double sgpa;
    Scanner s=new Scanner(System.in);
```

```
SGPA() {
  subject = new SUBJECT[8];
  for(int i=0; i<8; i++) {
     subject[i]=new SUBJECT();
  }
}

void getStudentdetails() {
   System.out.println("Enter the name
                          of the student");
   name = s.nextLine();
   System.out.println("Enter the usn of
                          the student");
   usn = s.next();
}

void getmarks() {
  for(int i=0; i<8; i++) {
  System.out.println("Enter Subject "+(i+1)
                  + " marks");
  subject[i].subjectmarks = s.nextInt();
  System.out.println("Enter credits of subject
                  "+(i+1));
  subject[i]credits = s.nextInt();
}

for(int i=0; i<8; i++) {
   if(subject[i].subjectmarks >=90 && subject[i].
                  subjectmarks <=100)
```

```
        subject[i].grade = 10;
else if (subject[i].subjectmarks >=80 &&
        subject[i].subjectmarks <90)
    subject[i].grade =9;
else if (subject[i].subjectmarks >=70 &&
        subject[i].subjectmarks <80)
    subject[i].grade=8
else if (subject[i].subjectmarks >=60 &&
        subject[i].subjectmarks <70)
    subject[i].grade =7

else if (subject[i].subjectmarks >=50 &&
        subject[i].subjectmarks <60)
    subject[i].grade=6

else if (subject[i].subjectmarks >=40 &&
        subject[i].subjectmarks <50)
    subject[i].grade=5

else if (subject[i].subjectmarks >=0 &&
        subject[i].subjectmarks <40)
    subject[i].grade = 0;

else {
    System.out.println("Enter the valid
                        number");
    break;
  }
 }
}
```

```
double computeSGPA()
{
double sum = 0.0; num;
for(int i=0; i<8; i++) {
   num = subject[i].grade * subject[i].
                            credits;

   sum += num;
}
   sgpa = sum / 20;
   return sgpa;
}

void display (double sgpa) {
   System.out.println("Name of the
                       candidate: " + name);
System.out.println("USN of the
                    candidate: " + usn);
System.out.printf("SGPA = " + sgpa);

   }
}

class A {
   public static void main(String args[])
   {
      SGPA ob = new SGPA();
      ob.getStudentdetails();
      ob.getmarks();
      double c = ob.computeSGPA();
   } ob.display(c);
}
```

output :

Enter the name of the student
PANNAGA R BHAT
Enter the usn of the student
1BM22CS189
Enter subject 1 marks
100
Enter credits of subject 1
4
~~Enter~~
Enter subject 2 marks
100
Enter credits of subject 2
4
Enter subject 3 marks
100
Enter credits of subject 3
3
Enter subject 4 marks
89
Enter credits of subject 4
3
Enter subject 5 marks
99
Enter credits of subject 5
3
Enter subject 6 marks
100
Enter credits of subject 6

1

Enter subject 7 marks

88

Enter credits of subject 7

1

Enter subject 8 marks

100

Enter credits of subject 8

1

Name of the Candidate : PANNAGA R BHAT

USN of the Candidate : 1BM22CS189

SGPA = 9.8

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