

Lab-2

→ Develop a java program to create a class Student with members usn, an array credits and an array marks. Include methods to accept and display details and a method to calculate SGPA of a student.

→ import java.util.Scanner;

```
class subject {  
    int subjectMarks;  
    int credits;  
    int grade;  
}
```

```
class Student {  
    String name;  
    String usn;  
    double SGPA;  
    Scanner s;  
    Subject[] subjects;  
}
```

```
Student () {  
    int i;  
    subjects = new Subject [8];  
    for (i = 0; i < 8; i++)  
        subjects [i] = new Subject ();  
    s = new Scanner (System.in);  
}
```

```
void getMarks () {  
    for (int i = 0; i < 8; i++) {  
        System.out.println ("Enter  
        details for Subject" + (i+1));  
    }  
}
```

```

System.out.print ("Enter marks");
subjects [i].subjectMark = s.nextInt();
System.out.print ("Enter credit:");
subjects [i].credits = s.nextInt();

```

```

if (subjects [i].subjectMarks >= 90) {
    subject [i].grade = 10;
}
else if (subjects [i].subjectMarks >= 80) {
    subject [i].grade = 9;
}
else if (subjects [i].subjectMarks >= 70) {
    subject [i].grade = 8;
}
else if (subjects [i].subjectMarks >= 60) {
    subject [i].grade = 7;
}
else if (subjects [i].subjectMark >= 50) {
    subject [i].grade = 6;
}
else if (subjects [i].subjectMark >= 40) {
    subject [i].grade = 5;
}
else {
    subject [i].grade = 0;
}
}

```

```

void compute SGPA () {
    double totalCredits = 0;
    double weightedSum = 0;

    for (int i = 0; i < 8; i++) {
        totalCredit += subjects [i].credits;
        weightedSum += subjects [i].grade *
            subjects [i].credits;
    }
    SGPA = weightedSum / totalCredits;
}

```



```
void displayResult () {
    System.out.println("\n Student
                        Details");
    System.out.println("Name" + name);
    System.out.println("USN : " + usn);
    System.out.println("SGPA : " + SGPA);
}
```

```
}
public class Main {
    public static void main
    (Strings [] args) {
        Student s1 = new Student();
        s1.getStudentDetails ();
        s1.getMarks ();
        s1.compute SGPA ();
        s1.displayResult ();
    }
}
```

→ Output : Shantanu Shrivastava  
IBM2208252

```
Enter student name : Shantanu
Enter student usn : IBM2208252
Enter details for subjects
Enter Marks : 81
Enter credit : 4
" " : 91
: 4
: 85
: 3
```

1

95

100

86

•

Name : Shantanu

Name : Shantanu

USN : IBM22C8252

SGPA : 9.45

→ rectangle.java  
class rectangle {

class rectangle }

public static void main (String  
args []) {

int b, b;

```
l = Integer.parseInt(args[0]);
```

$S = \text{Integer} \cdot \text{parseInt}(\text{args}[1]);$

let  $a' = b * b$ ;

System out println ("length of rectangle" = +l);

System.out.println ("breadth" = +b);

System out. printin ("Area" = +a);

Output

$\Rightarrow$   $\frac{\text{para rectangle}}{\text{para rectangle}}$   $\frac{10}{12}$   
 length = 10  
 breadth = 12  
 Area = 120

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