

→ SGPA calculator

```
import java.util.Scanner;
class Subject
{
    int sub_marks;
    int credits;
    int grade;
}
class SGPA
{
    Subject subject[]
    String name, USN;
    double sgpa;
    Scanner sc = new Scanner(System.in);

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

    void getData()
    {
        System.out.println("Enter name of Student:");
        name = sc.nextLine();
    }
}
```



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

```
USN = sc.nextLine();
```

```
}
```

```
void getMarks()
```

```
{ for(int i=0; i<8; i++)
```

```
{ System.out.println("Enter subject "+(i+1)+" marks");
```

```
Subject[i].sub_marks = sc.nextInt();
```

```
System.out.println("Enter subject "+(i+1)+" credits");
```

```
Subject[i].credits = sc.nextInt();
```

```
}
```

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

```
{ if(Subject[i].sub_marks >= 90 && Subject[i].sub_marks < 100)
```

```
Subject[i].grade = 10;
```

```
else if(Subject[i].sub_marks >= 80 && Subject[i].sub_marks < 90)
```

```
Subject[i].grade = 9;
```

```
else if(Subject[i].sub_marks >= 70 && Subject[i].sub_marks < 80)
```

```
Subject[i].grade = 8;
```

```
else if(Subject[i].sub_marks >= 60 && Subject[i].sub_marks < 70)
```

```
Subject[i].grade = 7;
```

```
else if(Subject[i].sub_marks >= 50 && Subject[i].sub_marks < 60)
```

```
Subject[i].grade = 6;
```

```
else if(Subject[i].sub_marks >= 40 && Subject[i].sub_marks < 50)
```

```
Subject[i].grade = 5;
```

```
else {
```

```
System.out.println("Enter valid score :");
```

```
break;
```



```
}  
{  
double compute()  
{ 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()  
{  
  System.out.println("Name of candidate: " + name);  
  System.out.println("USN of candidate: " + USN);  
  System.out.println("SGPA = " + sgpa);  
}
```

```
{  
class Main {  
  public static void main(String args[]) {  
    System.out.println("Pravjal P In IBM22CS200 In In");  
    SGPA ob = new SGPA();  
    ob.getData();  
    ob.getMarks();  
    double a = ob.compute();  
    ob.display(a);  
  }  
}
```


Output :-

Pragwal P

IBM22CS200

Enter name of Student:

Pragwal P

Enter USN:

IBM22CS200

Enter subject 1 marks.

97

Enter subject 1 credit

4

Enter subject 2 marks

93

Enter subject 2 credit

4

Enter subject 3 marks

92

Enter subject 3 credit

3

Enter subject 4 marks

94

Enter subject 4 credit

3

Enter subject 5 marks

87

Enter subject 5 credits

3

Enter subject 6 marks

Enter subject 6 credits

1

Enter subject 67 marks

Enter subject 7 credits

1

Enter subject 8 marks

Enter subject 8 credits

1

Name of candidate: Prajwal P

USN of candidate: IBM22CS206

SGPA = 9.8

10/10

22/12/23