

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

```
A> import java.util.*;
public class Main
{
    String name;
    String usn;
    int marks[] = new int[5];
    int credits[] = new int[5];
    int tot = 0;
    int i;
    int grade = 0;
    void read_data()
    {
        Scanner obj = new Scanner(System.in);
        System.out.println("Enter name of student");
        name = obj.next();
        System.out.println("Enter the USN");
        usn = obj.next();
        System.out.println("Enter the credits and marks of 5 subjects");
        for (i = 0; i < 5; i++)
        {
            System.out.println("Credits for subjects " + (i+1) + " :");
            credits[i] = obj.nextInt();
            System.out.println("Marks for subjects " + (i+1) + " :");
            marks[i] = obj.nextInt();
        }
    }
    void calc_SGPA()
    {
        for (i = 0; i < 5; i++)
        {
            if (marks[i] >= 90 && marks[i] <= 100)
                grade = 10;
            else if (marks[i] >= 75 && marks[i] < 90)
                grade = 9;
        }
    }
}
```



```
elseif (marks[i] >= 60 && marks[i] < 75)
    grade = 8;
else if (marks[i] >= 50 && marks[i] < 60)
    grade = 7;
else if (marks[i] >= 45 && marks[i] < 50)
    grade = 6;
else if (marks[i] >= 40 && marks[i] < 45)
    grade = 5;
else if (marks[i] < 40)
    grade = 0;
tot = tot + grade * credits[i];
}
tot = tot / 20;
System.out.println("SGPA: " + tot);
}

void details()
{
    System.out.println("Name: " + name);
    System.out.println("USN: " + usn);
    System.out.println("Marks and Credits for all 5 subjects:");
    for (i = 0; i < 5; i++)
    {
        System.out.println(marks[i]);
        System.out.println(credits[i]);
    }
}

public static void main main(String args[])
{
    Main ob = new Main();
    ob.readData();
    ob.calcSGPA();
    ob.details();
}
```

```
import java.util.*;
```

```
public class Main
```

```
{
```

```
    String name;
```

```
    String usn;
```

```
    int marks[]=new int[5];
```

```
    int credits[]=new int[5];
```

```
    int tot=0;
```

```
    int i;
```

```
    int grade=0;
```

```
    void read_data()
```

```
{
```

```
    Scanner obj=new Scanner(System.in);
```

```
    System.out.println("Enter the name of the students");
```

```
    name=obj.next();
```

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

```
    usn=obj.next();
```

```
    System.out.println("Enter the credits and marks for 5 subjects");
```

```
    for(i=0;i<5;i++)
```

```
{
```

```
    System.out.println("Credits for subject" +(i+1)+":");
```

```
    credits[i]=obj.nextInt();
```

```
    System.out.println("Marks for subject" +(i+1)+": ");
```

```
    marks[i]=obj.nextInt();
```

```
}
```

```
}
```

```
void calc_SGPA()
```

```
{
```



```
void calc_SGPA()
{
    for(i=0;i<5;i++)
    {
        if(marks[i]>=90&&marks[i]<=100)
            grade=10;
        else if(marks[i]>=75&&marks[i]<90)
            grade=9;
        else if(marks[i]>=60&&marks[i]<75)
            grade=8;
        else if(marks[i]>=50&&marks[i]<60)
            grade=7;
        else if(marks[i]>=45&&marks[i]<50)
            grade=6;
        else if(marks[i]>=40&&marks[i]<45)
            grade=5;
        else if(marks[i]<40)
            grade=0;

        tot=tot+grade*credits[i];
    }
    tot=tot/20;
    System.out.println("SGPA:"+tot);
}

void details()
{
    System.out.println("Name:"+name);
    System.out.println("USN:"+usn);
    System.out.println("Marks and Credits for all 5 subjects:");
    for(i=0;i<5;i++)
```



```
        tot=tot+grade*credits[i];
    }
    tot=tot/20;
    System.out.println("SGPA:"+tot);
}

void details()
{
    System.out.println("Name:"+name);
    System.out.println("USN:"+usn);
    System.out.println("Marks and Credits for all 5 subjects:");
    for(i=0;i<5;i++)
    {
        System.out.println(marks[i]);
        System.out.println(credits[i]);
    }
    calc_SGPA();
}

public static void main(String args[])
{
    Main ob=new Main();
    ob.read_data();
    ob.calc_SGPA();
    ob.details();

}
}
```



Command Prompt

Microsoft Windows [Version 10.0.18363.1139]

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C:\Users\sohan>cd C:\Users\sohan\Desktop\Java Programs\SGPA

C:\Users\sohan\Desktop\Java Programs\SGPA>javac Main.java

C:\Users\sohan\Desktop\Java Programs\SGPA>java Main

Enter the name of the students

sohan

Enter the USN

159

Enter the credits and marks for 5 subjects

Credits for subject1:

4

Marks for subject1:

45

Credits for subject2:

3

Marks for subject2:

76

Credits for subject3:

5

Marks for subject3:

88

Credits for subject4:

5

Marks for subject4:

98

Credits for subject5:

2

Marks for subject5:

56

SGPA:8

Name:sohan

USN:159

Marks and Credits for all 5 subjects:

45

4

76

3

88

5

98

5

56

2

SGPA:8

C:\Users\sohan\Desktop\Java Programs\SGPA>



Type here to search



ENG

09:16
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