

LAB PROGRAM - 2

Q. 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 CGPA of a student.

```
→ import java.util.Scanner;
class Student
{
    String name, usn;
    int marks[] = new int[5]
    int credits[] = new int[5]
    void input()
    {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter your name:");
        name = s.nextLine();
        System.out.println("Enter your usn:");
        usn = s.next();
        System.out.println("Enter the marks of each subject:");
        for (int i=0; i<5; i++)
        {
            marks[i] = s.nextInt();
        }
        System.out.println("Enter the no. of credits for each subject");
        for (int j=0; j<5; j++)
            credits[j] = s.nextInt();
    }
}
```

```
void display()
```

```
{
```

```
System.out.println("Name: " + name);
```

```
System.out.println("usn: " + usn);
```

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

```
{
```

```
System.out.println("marks of subject " + (i+1) + " = " + marks[i]);
```

```
System.out.println("No. of credits for the subject above = " + credits[i]);
```

```
}
```

```
}
```

```
void calc()
```

```
{
```

```
int gr-point[] = new int[5];
```

```
int sgpa = 0;
```

```
int sum = 0;
```

```
float res;
```

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

```
{
```

```
if (marks[i] >= 90)
```

```
gr-point[i] = 10;
```

```
else if (marks[i] >= 80)
```

```
gr-point[i] = 9;
```

```
else if (marks[i] >= 70)
```

```
gr-point[i] = 8;
```

```
else if (marks[i] >= 60)
```

```
gr-point = 7;
```

```
else if (marks[i] >= 50)
```

```
gr-point[i] = 6;
```



```
else if (marks[i] >= 40)
```

```
gr_point[i] = 5;
```

```
else if (marks[i] < 35 && marks > 0)
```

```
gr_point = 0;
```

```
else
```

```
system.out.println("Invalid input for " + (i+1) + "subject");
```

```
sgpa += (gr_point[i] * credits[i]);
```

```
sum += (credits[i]);
```

```
}
```

```
res = (float) sgpa / sum;
```

```
system.out.println("SGPA=" + res);
```

```
}
```

```
}
```

```
class sgpa
```

```
{ public static void main(String arr[])
```

```
{
```

```
Student s1 = new Student();
```

```
s1.input();
```

```
s1.display();
```

```
s1.calc();
```

```
}
```

```
}
```

```
Command Prompt - java Lab3
Enter your name:
Aryan
Enter your usn:
1BM21CS033
Enter the marks of each subject:
89
78
91
76
88
Enter the no. of credits for each subject:
4
3
3
3
1
Name:Aryan
USN:1BM21CS033
Marks of subject1=89
No. of credits for the subject above=4
Marks of subject2=78
No. of credits for the subject above=3
Marks of subject3=91
No. of credits for the subject above=3
Marks of subject4=76
No. of credits for the subject above=3
Marks of subject5=88
No. of credits for the subject above=1
SGPA:8.785714
```