

```
import java.util.*;
class Student
{
String usn;
String name;
private int n,credits[],marks[],gp[];
double sum,sgpa;

Student()
{
name="xyz";
usn="0";
}

void accept()
{
Scanner s1=new Scanner(System.in);
System.out.println("Enter the usn and name");
usn=s1.next();
name=s1.next();
System.out.println("Enter number of subjects");
n=s1.nextInt();
credits=new int[n+1];
marks=new int[n+1];
System.out.println("Enter the credits and marks in each subject");
for(int i=1;i<=n;i++)
{
System.out.println("Enter the credits and marks in subject "+i);
credits[i]=s1.nextInt();
marks[i]=s1.nextInt();
}
}

void calculate()
{
gp=new int[n+1];
int a=0;
for(int i=1;i<=n;i++)
{
```

```
System.out.println("Enter the credits and marks in each subject");
for(int i=1;i<=n;i++)
{
    System.out.println("Enter the credits and marks in subject "+i);
    credits[i]=s1.nextInt();
    marks[i]=s1.nextInt();
}
}
void calculate()
{
    gp=new int[n+1];
    int a=0;
    for(int i=1;i<=n;i++)
    {
        if(marks[i]>=90)
            gp[i]=10;
        if(marks[i]>=80&&marks[i]<90)
            gp[i]=9;
        if(marks[i]>=70&&marks[i]<80)
            gp[i]=8;
        if(marks[i]>=60&&marks[i]<70)
            gp[i]=7;
        if(marks[i]>=50&&marks[i]<60)
            gp[i]=5;
        if(marks[i]<40)
            gp[i]=0;
        sum=(double)(credits[i]*gp[i])+sum;
        a=a+credits[i];
    }
    sgpa=sum/a;
}
void display()
{
    System.out.println("usn:"+usn+" name:"+name);
    for (int i=1;i<=n;i++)
        System.out.println("marks:"+marks[i]+" grade points:"+gp[i]);
    System.out.println("sgpa:"+sgpa);
}
```

```
for(int i=1;i<=n;i++)
{
if(marks[i]>=90)
gp[i]=10;
if(marks[i]>=80&&marks[i]<90)
gp[i]=9;
if(marks[i]>=70&&marks[i]<80)
gp[i]=8;
if(marks[i]>=60&&marks[i]<70)
gp[i]=7;
if(marks[i]>=50&&marks[i]<60)
gp[i]=5;
if(marks[i]<40)
gp[i]=0;
sum=(double)(credits[i]*gp[i])+sum;
a=a+credits[i];
}
sgpa=sum/a;
}
void display()
{
System.out.println("usn:"+usn+" name:"+name);
for (int i=1;i<=n;i++)
System.out.println("marks:"+marks[i]+" grade points:"+gp[i]);
System.out.println("sgpa:"+sgpa);
}
}
class Studentmain
{
public static void main(String[] args)
{
Student sc=new Student();
sc.accept();
sc.calculate();
sc.display();
}
}
```

```
C:\Users\Hima\Desktop\java>javac Studentmain.java
```

```
C:\Users\Hima\Desktop\java>java Studentmain
```

```
Enter the usn and name
```

```
1bm19cs045 harini
```

```
Enter number of subjects
```

```
5
```

```
Enter the credits and marks in each subject
```

```
Enter the credits and marks in subject 1
```

```
3 98
```

```
Enter the credits and marks in subject 2
```

```
4 78
```

```
Enter the credits and marks in subject 3
```

```
5 92
```

```
Enter the credits and marks in subject 4
```

```
4 98
```

```
Enter the credits and marks in subject 5
```

```
3 79
```

```
usn:1bm19cs045name:harini
```

```
marks:98grade points:10
```

```
marks:78grade points:8
```

```
marks:92grade points:10
```

```
marks:98grade points:10
```

```
marks:79grade points:8
```

```
sgpa:9.263157894736842
```