```
t java.util.*;
        class student
                 rivate String usn, name;
              private int credits[];
private double marks[],sgpa;
                  rivate int size;
                        e double gp[];
              scanner sc=new Scanner(System.in);
student()
{
                    System.out.println("Enter number of subjects");
                    size=sc.nextInt();
                    credits=new int[size];
marks=new double[size];
                   marks=new double[size
gp=new double[size];
usn="";
name="";
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              void accept()
                    System.out.println("Enter the name of the student");
                    name=sc.next();
                    System.out.println("enter usn of students");
                    usn=sc.next();
                     for(int i=0;i<size;i++)</pre>
                           System.out.println("enter marks obtained and credits sub"+(i+1));
                          marks[i]=sc.nextDouble();
credits[i]=sc.nextInt();
              void display()
                    System.out.println("name:"+name);
System.out.println("usn:"+usn);
System.out.println("-----marks ol
                                                          --marks obtained----");
                    System.out.printtn('-----|marks obtained----- );
for(int i=0;i<size;i++)
    System.out.println("sub "+(i+1)+": marks="+marks[i]+"; credits="+credits[i]+"; grade_points="+gp[i]+";");
System.out.printf("sgpa:%.2f\n\",sgpa);</pre>
 43
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```
void calc()
              double sum=0,total=0;
               for(int i=0;i<size;i++)
                   sum=sum+credits[i];
                   if(marks[i]>=90)
                       total=total+(10*credits[i]);
                       gp[i]=10*credits[i];
                  else if(marks[i]>=80)
{
                       total=total+(9*credits[i]);
gp[i]=9*credits[i];
                     lse if(marks[i]>=70)
                       total=total+(8*credits[i]);
                       gp[i]=8*credits[i];
                     .se if(marks[i]>=60)
                       total=total+(7*credits[i]);
                       gp[i]=7*credits[i];
72
73
                     .se if(marks[i]>=50)
                       total=total+(6*credits[i]);
                       gp[i]=6*credits[i];
                   else if(marks[i]>=40)
{
                       total=total+(5*credits[i]);
                       gp[i]=5*credits[i];
80
84
```

```
84
                   {
 85
                       total=total+(4*credits[i]);
                       qp[i]=4*credits[i];
87
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 89
90
               sgpa=total/sum;
91
92
93
      }
94
      class student1
95
      {
      public static void main(String args[])
96
98
      student s=new student();
99
      s.accept();
100
      s.calc();
101
      s.display();
102
103
104
```

```
sgpa:9,50Arvinds-MacBook-Pro:ooj Arvind$ javac Student
Arvinds-MacBook-Pro:ooj Arvind$ java student1
Enter number of subjects
Enter the name of the student
anvitha
enter usn of students
1bm19cs021
enter marks obtained and credits sub1
100
enter marks obtained and credits sub2
90
enter marks obtained and credits sub3
70
3
name:anvitha
usn:1bm19cs021
----marks obtained----
sub 1: marks=100.0 ; credits=5; grade_points=50.0;
sub 2: marks=90.0 ; credits=4; grade_points=40.0;
sub 3: marks=70.0 ; credits=3; grade_points=24.0;
sgpa:9,50
Arvinds-MacBook-Pro:ooj Arvind$
```