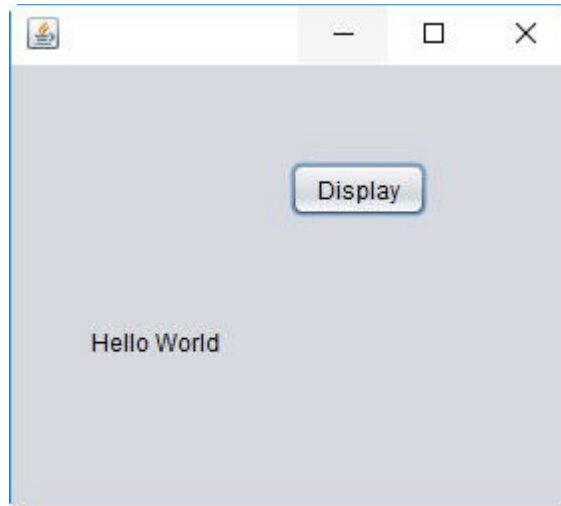


# JAVA HANDBOOK

RAMAN DEEP SINGH

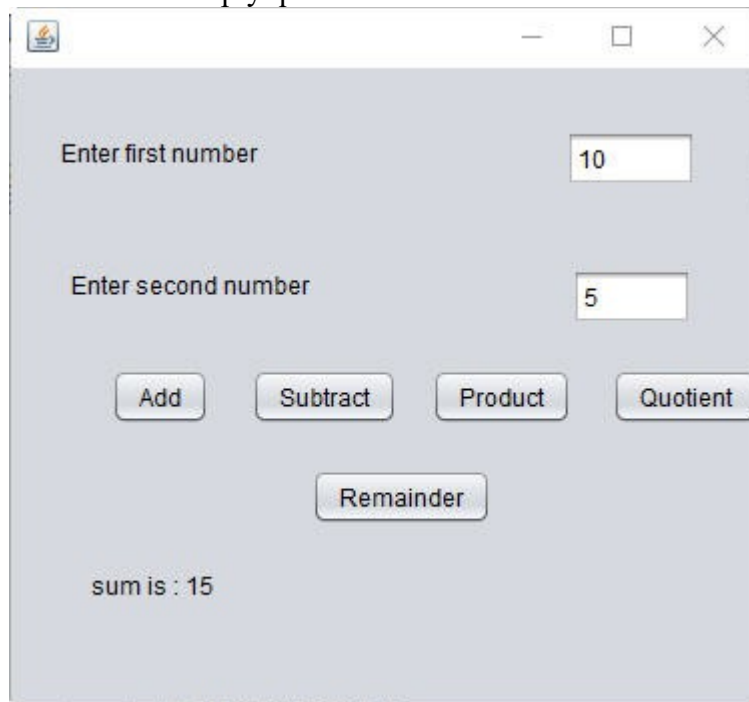
## 1. Program to display Hello world in a label



### Coding for Display Button

```
jLabel1.setText("Hello World");
```

## 2. Program to add subtract multiply quotient and remainder



### Coding for Add Button

```
int a,b,sum;  
a=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
sum=a+b;  
jLabel3.setText("sum is : " + sum);
```

### Coding for subtract button

```
int a,b,diff;  
a=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
diff=a-b;  
jLabel3.setText("difference is : " + diff);
```

#### Coding for Product Button

```
int a,b,product;  
a=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
product=a*b;  
jLabel3.setText("product is : " + product);
```

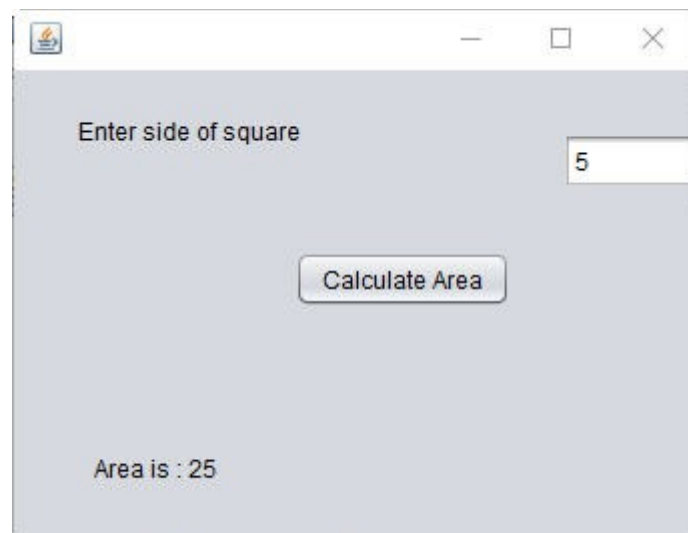
#### Coding for Quotient Button

```
int a,b,quotient;  
a=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
quotient=a/b;  
jLabel3.setText("quotient is : " + quotient);
```

#### Coding for Remainder Button

```
int a,b,remainder;  
a=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
remainder=a%b;  
jLabel3.setText("remainder is : " + remainder);
```

### 3. Program to find area of square based on side of square

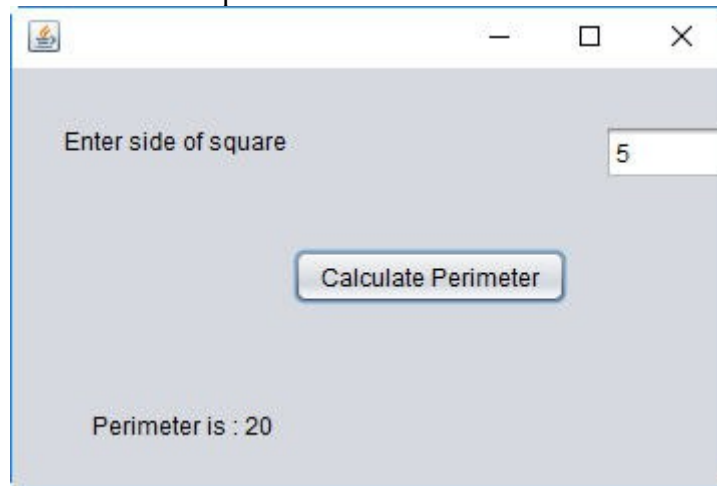


#### Coding for Calculate Area Button

```
int side,area;  
side=Integer.parseInt(jTextField1.getText());  
area=side*side;
```

```
jLabel2.setText("Area is : " +area);
```

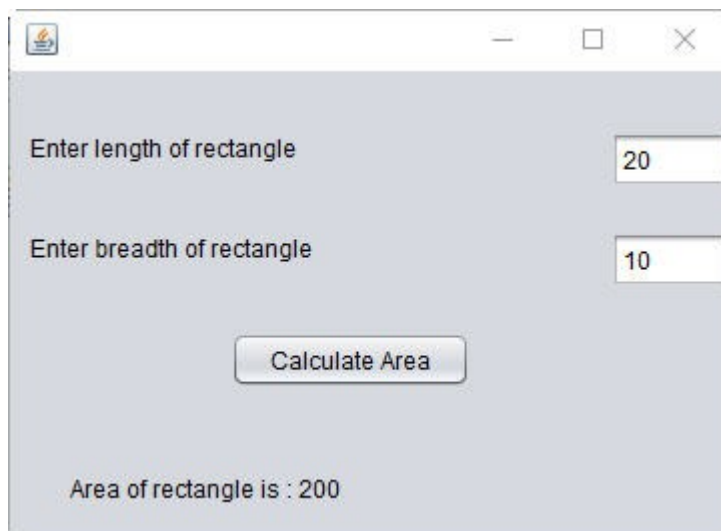
4. Program to find Perimeter of square



Coding for Calculate Perimeter Button

```
int side,perimeter;  
side=Integer.parseInt(jTextField1.getText());  
perimeter=4*side;  
jLabel2.setText("Perimeter is : " +perimeter);
```

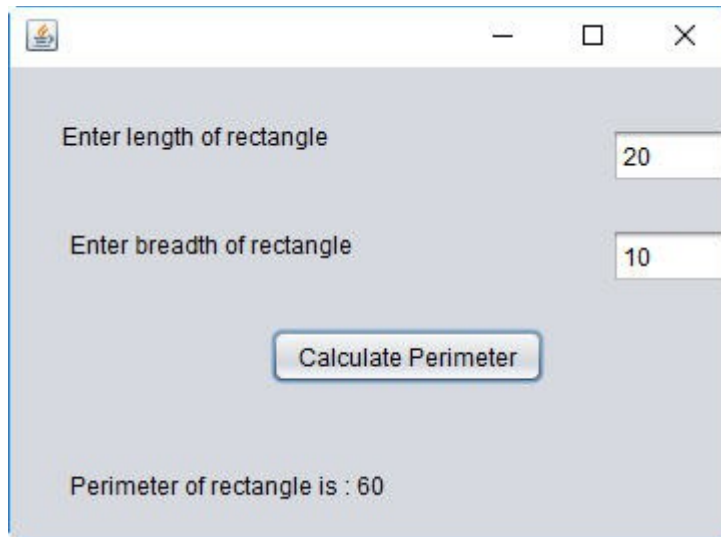
5. Program to find area of rectangle based on length and breadth of rectangle



Coding for Calculate Area Button

```
int l,b,area;  
l=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
area=l*b;  
jLabel3.setText("Area of rectangle is : " +area);
```

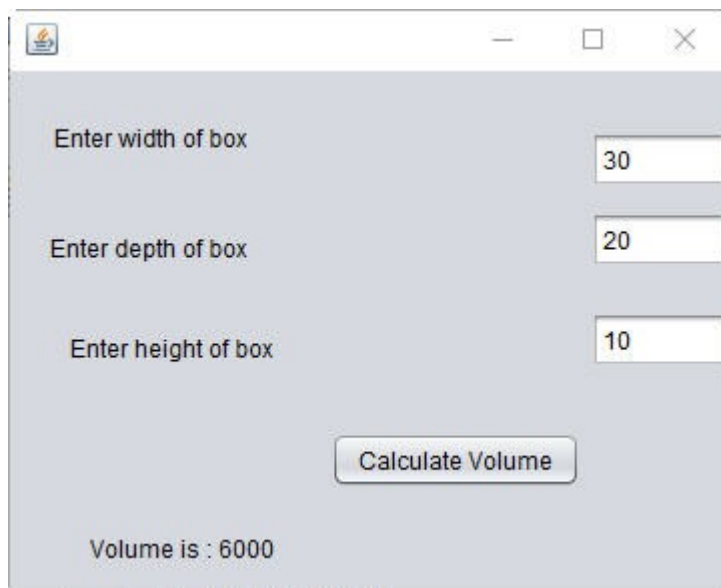
6. Program to find perimeter of rectangle based on length and breadth of rectangle



Coding for Calculate Perimeter Button

```
int l,b,perimeter;  
l=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
perimeter=2*(l+b);  
jLabel3.setText("Perimeter of rectangle is : " + perimeter);
```

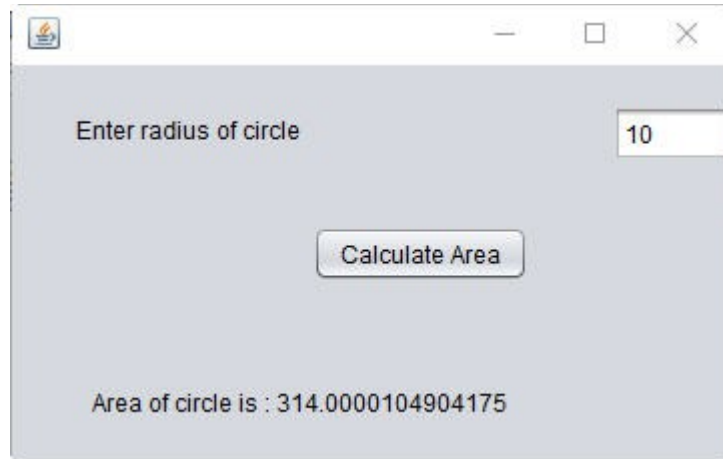
7. Program to find volume of box based on width, depth and height of box



Coding for Calculate Volume button

```
int w,d,h,volume;  
w=Integer.parseInt(jTextField1.getText());  
d=Integer.parseInt(jTextField2.getText());  
h=Integer.parseInt(jTextField3.getText());  
volume=w*d*h;  
jLabel4.setText("Volume is : " + volume);
```

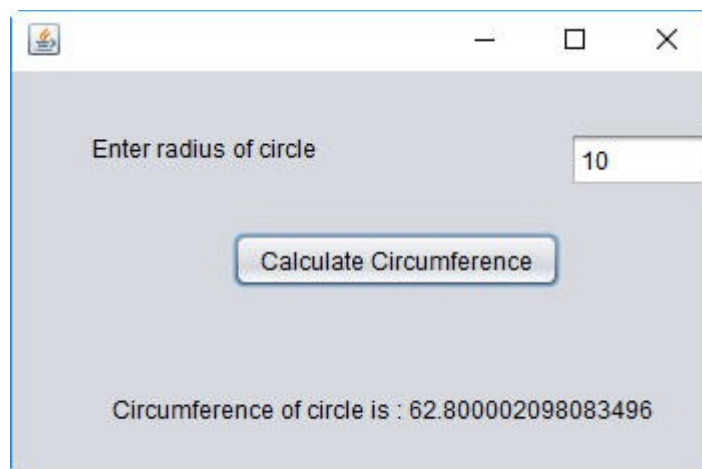
8. Program to find area of circle based on radius of circle



Coding for Calculate Area Button

```
double radius,area;  
radius=Double.parseDouble(jTextField1.getText());  
area=3.14f*radius*radius;  
jLabel2.setText("Area of circle is : " + area);
```

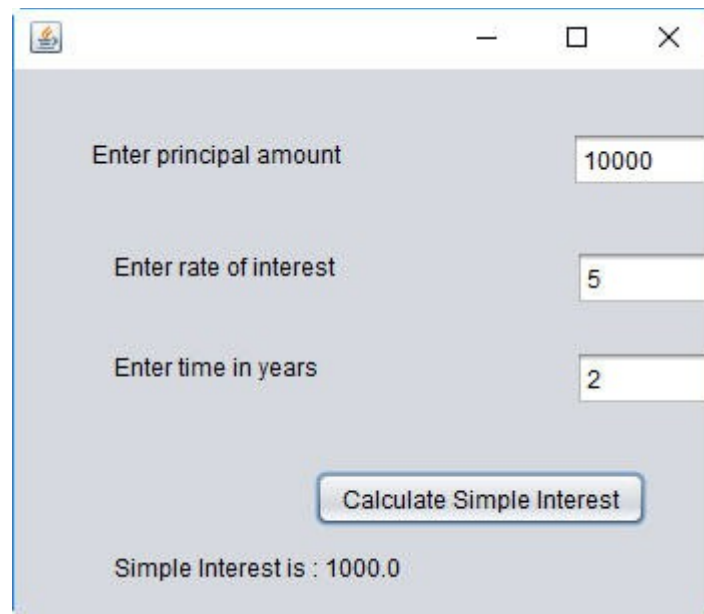
9. Program to find circumference of circle based on radius of circle



Coding for Calculate Circumference Button

```
double radius,circumference;  
radius=Double.parseDouble(jTextField1.getText());  
circumference=2*3.14f*radius;  
jLabel2.setText("Circumference of circle is : " + circumference);
```

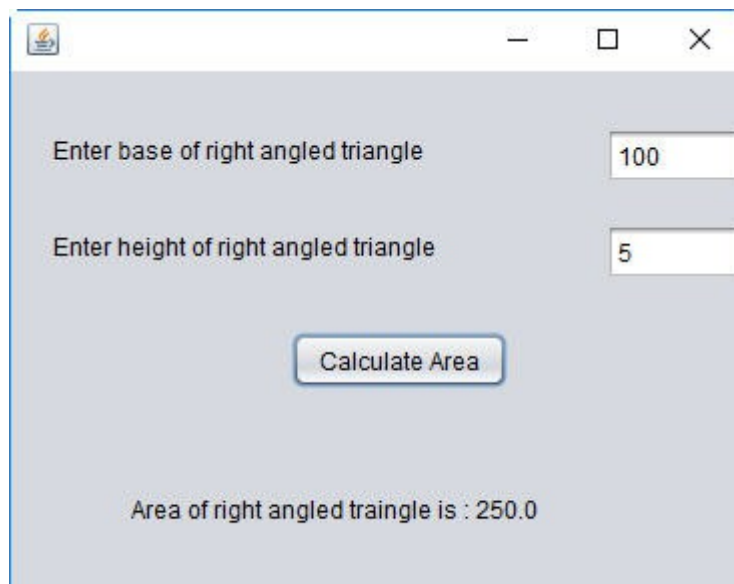
10. Program to calculate Simple Interest based on Principal Amount, Rate of Interest and Time in Years



#### Coding for Calculate Simple Interest

```
double p,r,t,si;
p=Double.parseDouble(jTextField1.getText());
r=Double.parseDouble(jTextField2.getText());
t=Double.parseDouble(jTextField3.getText());
si=(p*r*t)/100;
jLabel4.setText("Simple Interest is : " + si);
```

11. Program to calculate area of right angled triangle based on base and height of right angled triangle

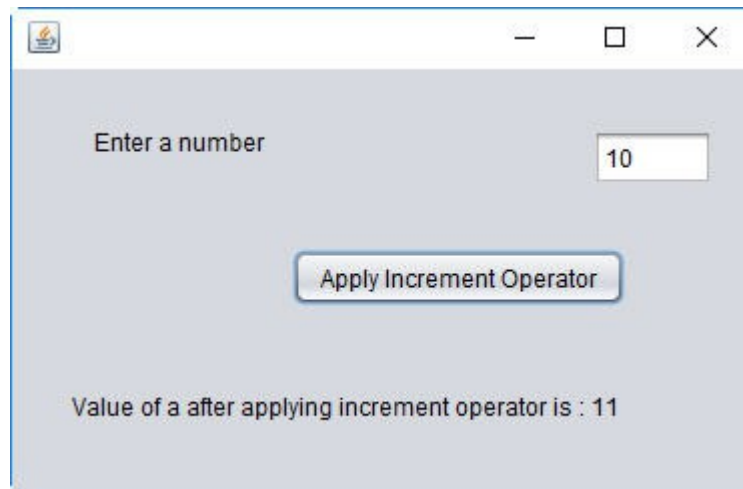


#### Coding for Calculate Area Button

```
double b,h,area;
b=Double.parseDouble(jTextField1.getText());
h=Double.parseDouble(jTextField2.getText());
area=0.5f*b*h;
```

```
jLabel3.setText("Area of right angled triangle is : "+area);
```

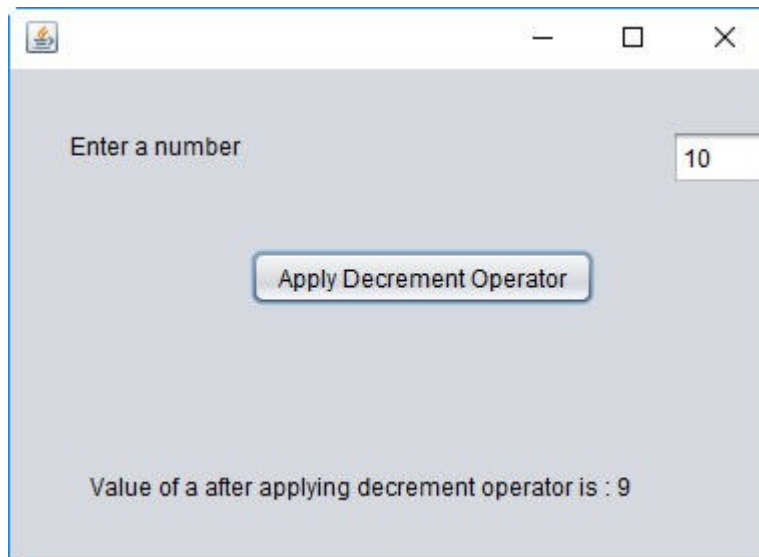
## 12. Program to demonstrate increment operator (++)



### Coding for Apply Increment Operator Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
a++;  
jLabel2.setText("Value of a after applying increment operator is : " + a);
```

## 13. Program to demonstrate decrement operator (--)

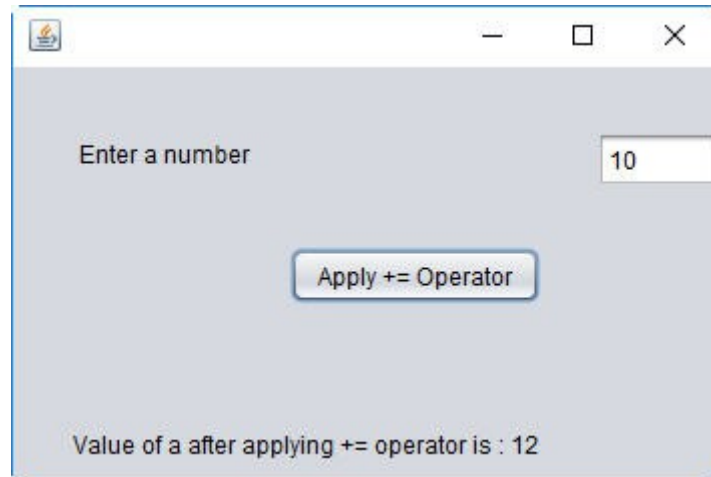


### Coding for Apply Decrement Operator Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
a--;  
jLabel2.setText("Value of a after applying decrement operator is : " + a);
```



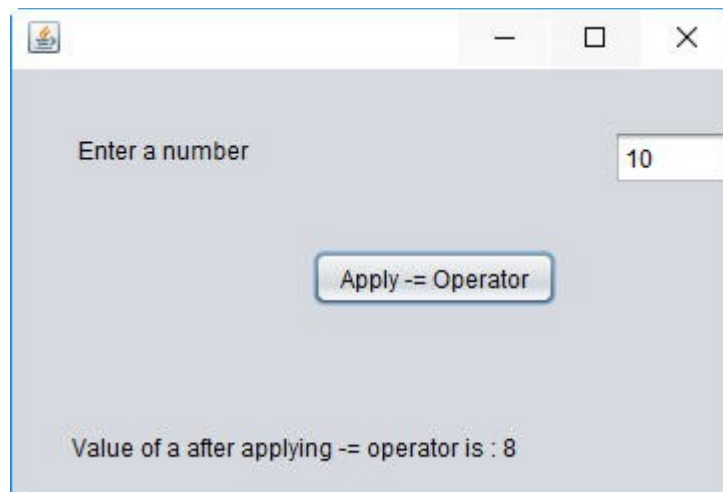
14. Program to demonstrate short hand assignment operator (+=)



Coding for Apply += Operator Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
a+=2;  
jLabel2.setText("Value of a after applying += operator is : " +a);
```

15. Program to demonstrate short hand assignment operator (-=)



Coding for Apply -= Operator Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
a-=2;  
jLabel2.setText("Value of a after applying -= operator is : " +a);
```

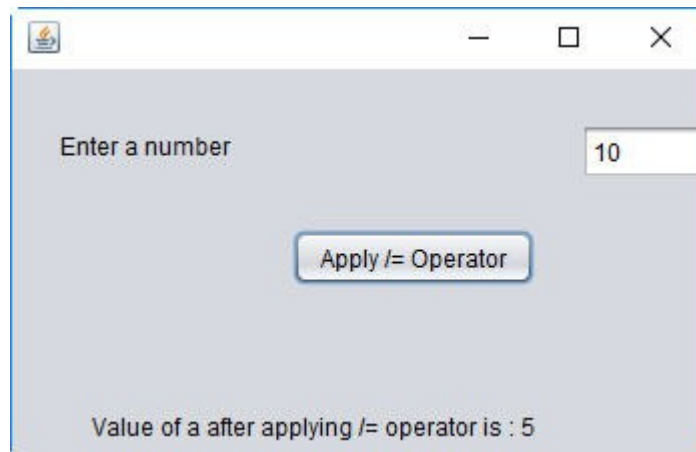
16. Program to demonstrate short hand assignment operator (\*=)



Coding for Apply \*= Operator Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
a*=2;  
jLabel2.setText("Value of a after applying *= operator is : "+a);
```

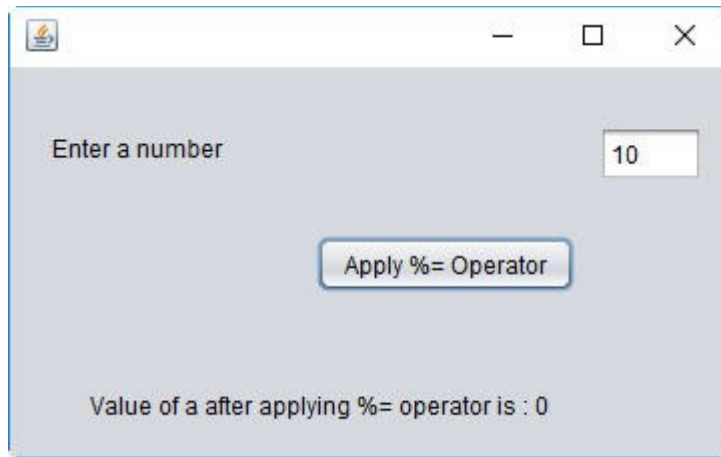
17. Program to demonstrate short hand assignment operator (/=)



Coding for Apply /= Operator Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
a/=2;  
jLabel2.setText("Value of a after applying /= operator is : "+a);
```

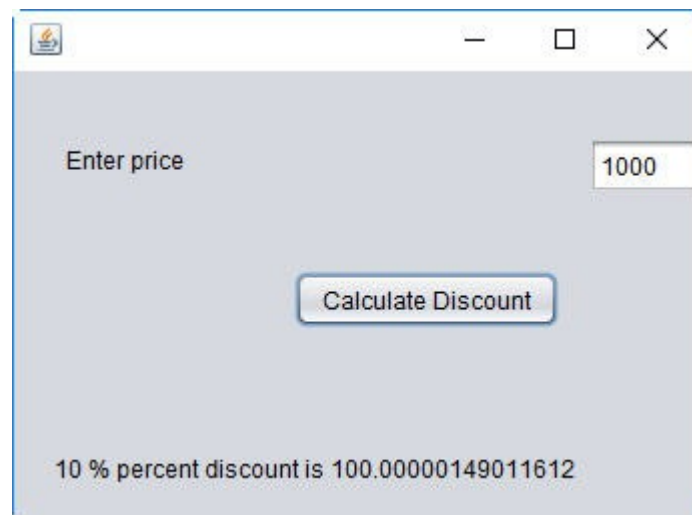
18. Program to demonstrate short hand assignment operator (%=)



#### Coding for Apply %= Operator Button

```
int a;
a=Integer.parseInt(jTextField1.getText());
a%=2;
jLabel2.setText("Value of a after applying %= operator is : " +a);
```

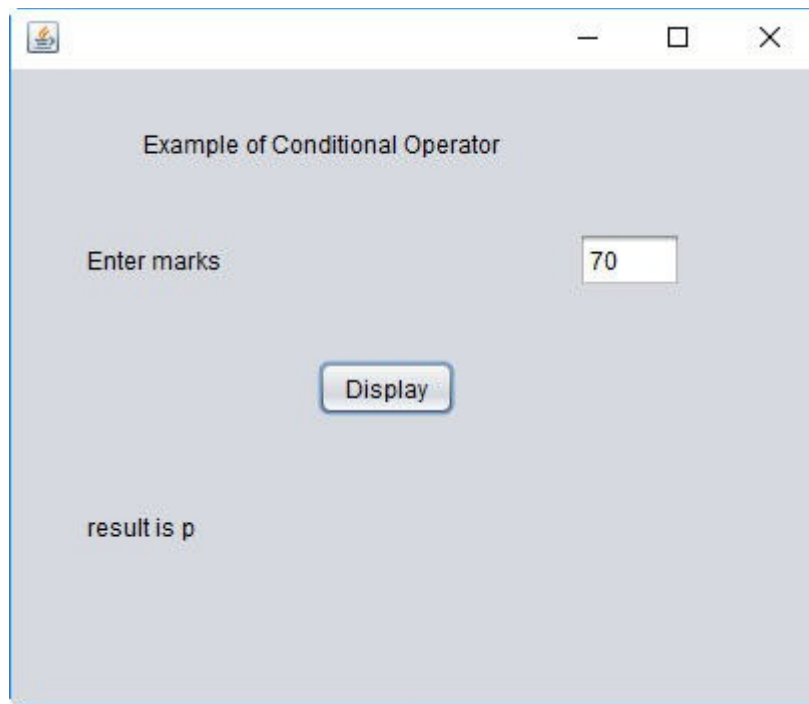
#### 19. Program to calculate 10% discount on amount entered by user



#### Coding for Calculate Discount Button

```
double price,discount;
price=Double.parseDouble(jTextField1.getText());
discount=0.1f*price;
jLabel2.setText("10 % percent discount is " + discount);
```

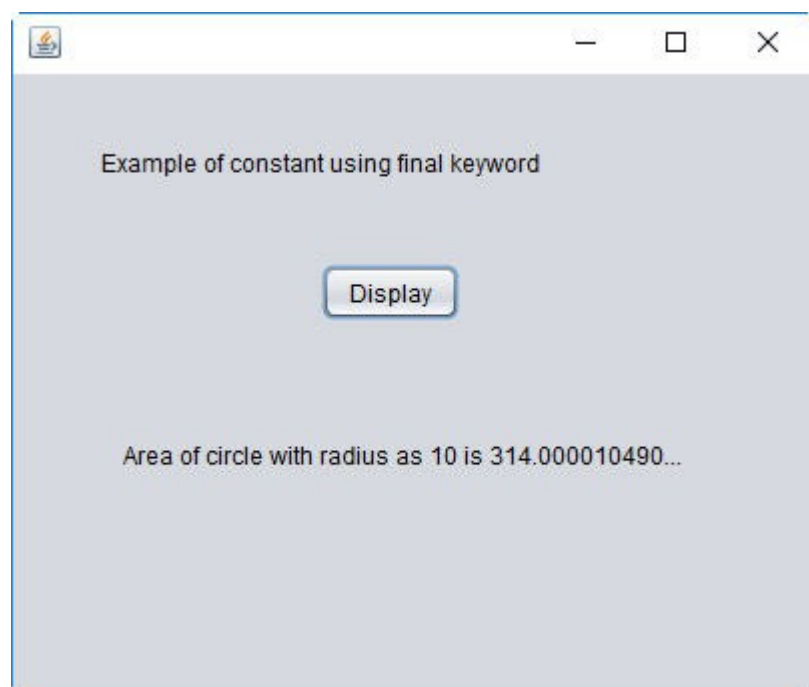
#### 20. Program to demonstrate conditional or ternary operator if marks are greater than 40 result is p else it is f



Coding for Display Button

```
char result;  
int marks;  
marks=Integer.parseInt(jTextField1.getText());  
result=(marks>=40?'p':'f');  
jLabel3.setText("result is " + result);
```

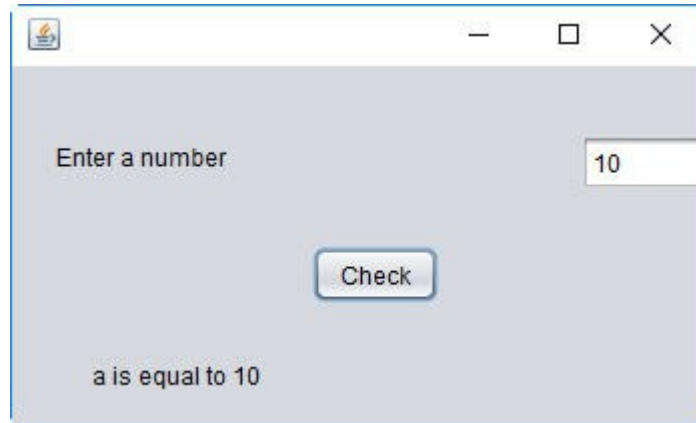
21. Program to declare a constant using final keyword



Coding for Display Button

```
final double pi=3.14f;
double area;
area=pi*10*10;
jLabel2.setText("Area of circle with radius as 10 is " + area);
```

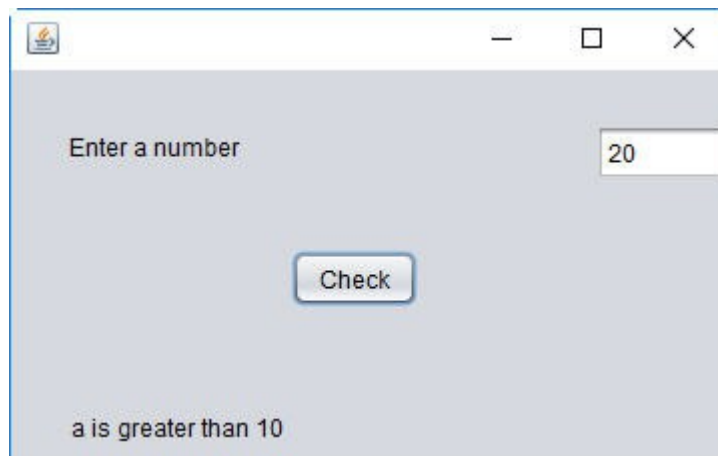
22. Program to check whether number is equal to 10 or not



Coding for Check Button

```
int a;
a=Integer.parseInt(jTextField1.getText());
if(a==10)
{
jLabel2.setText("a is equal to 10 ");
}
```

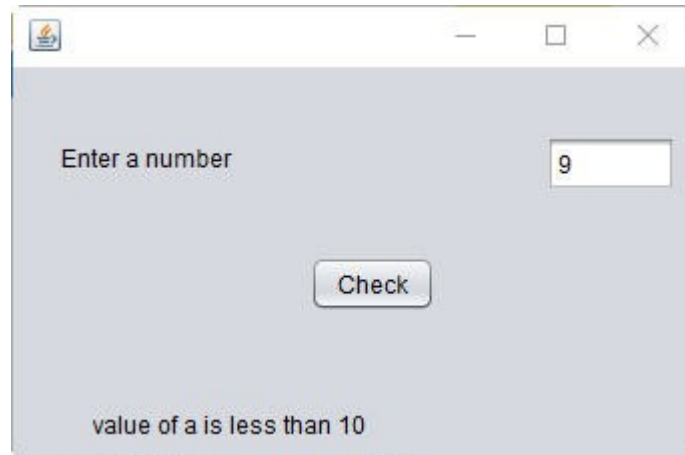
23. Program to check whether number is greater than 10 or not



Coding for Check Button

```
int a;
a=Integer.parseInt(jTextField1.getText());
if(a>10)
{
    jLabel2.setText("a is greater than 10");
}
```

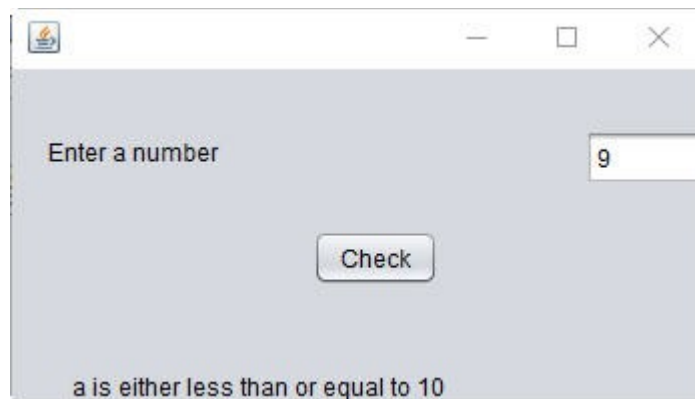
24. Program to check whether number is less than 10 or not



Coding for Check Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
if(a<10)  
{  
    jLabel2.setText("value of a is less than 10");  
}
```

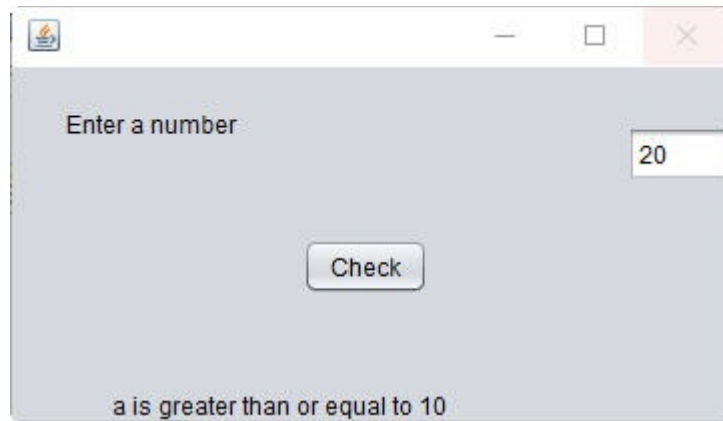
25. Program to check whether a is either less than or equal to 10



Coding for Check Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
if(a<=10)  
{  
    jLabel2.setText("a is either less than or equal to 10");  
}
```

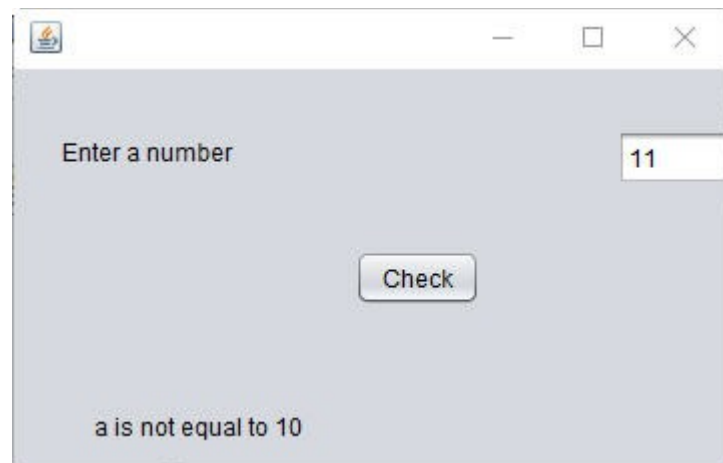
26. Program to check whether a is either greater than 10 or not



Coding for check button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
if(a>=10)  
{  
    jLabel2.setText("a is greater than or equal to 10");  
}
```

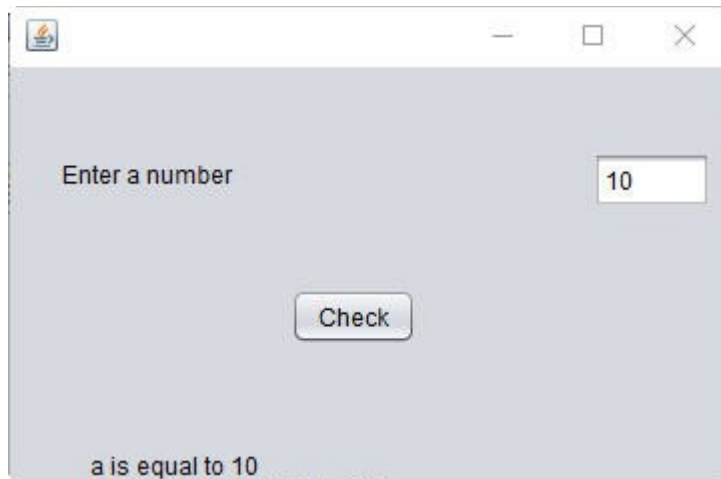
27. Program to check whether a is not equal to 10



Coding for check button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
if(a!=10)  
{  
    jLabel2.setText("a is not equal to 10");  
}
```

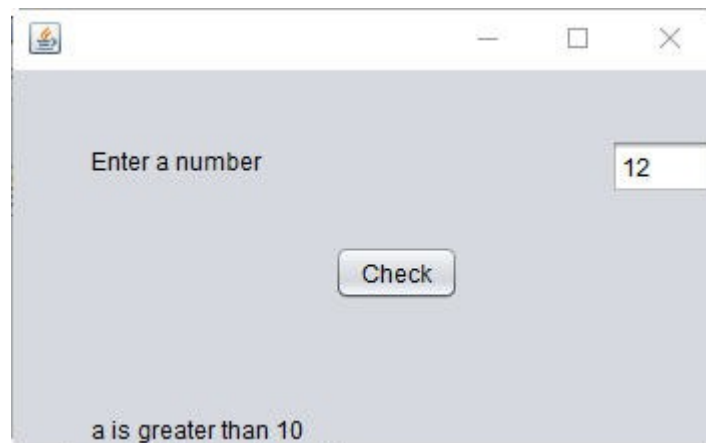
28. Program to check whether a is equal to 10 or not



Coding for Check Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
if(a==10)  
{  
    jLabel2.setText("a is equal to 10");  
}  
else  
{  
    jLabel2.setText("a is not equal to 10");  
}
```

29. Program to check whether a is greater than 10 or not



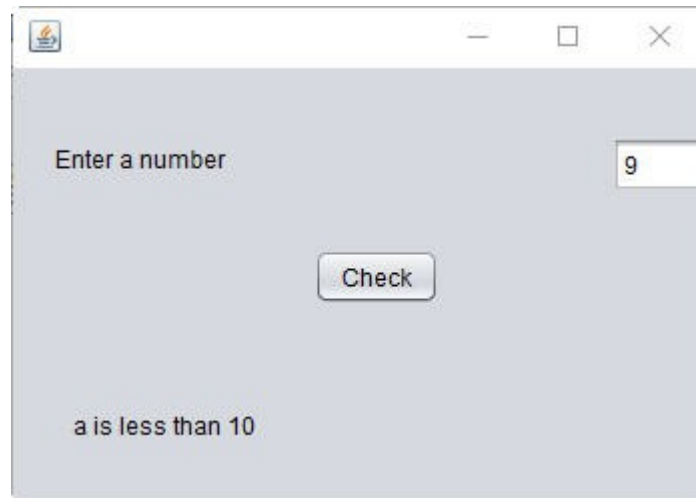
Coding for Check Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
if(a>10)  
{  
    jLabel2.setText("a is greater than 10");  
}  
else  
{
```



```
jLabel2.setText("a is either less than 10 or equal to 10");  
}
```

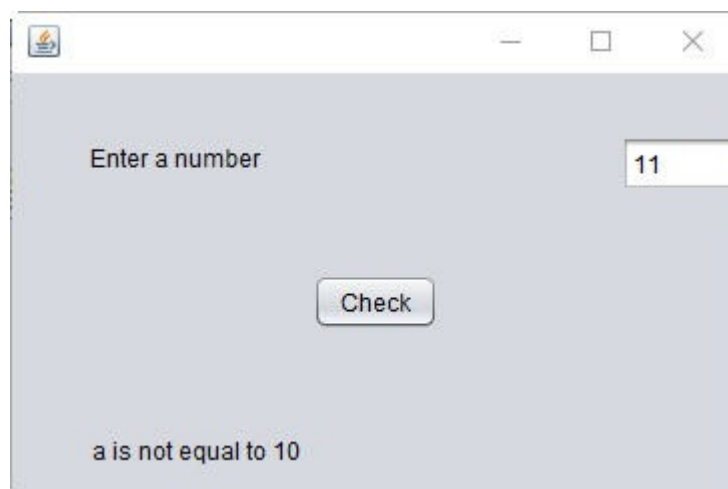
30. Program to check whether a is less than 10 or not



Coding for Check Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
if(a<10)  
{  
    jLabel2.setText("a is less than 10");  
}  
else  
{  
    jLabel2.setText("a is greater than or equal to 10");  
}
```

31. Program to check whether a is not equal to 10 or not



Coding for Check Button

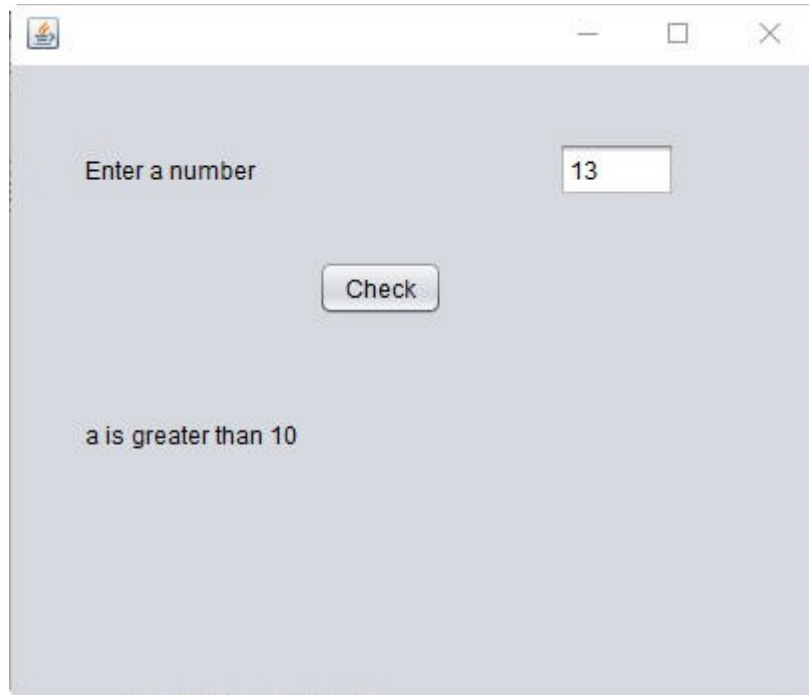
```
int a;  
a=Integer.parseInt(jTextField1.getText());
```

```

if(a!=10)
{
jLabel2.setText("a is not equal to 10");
}
else
{
jLabel2.setText("a is equal to 10");
}

```

32. Program to check whether a is greater than 10 or not



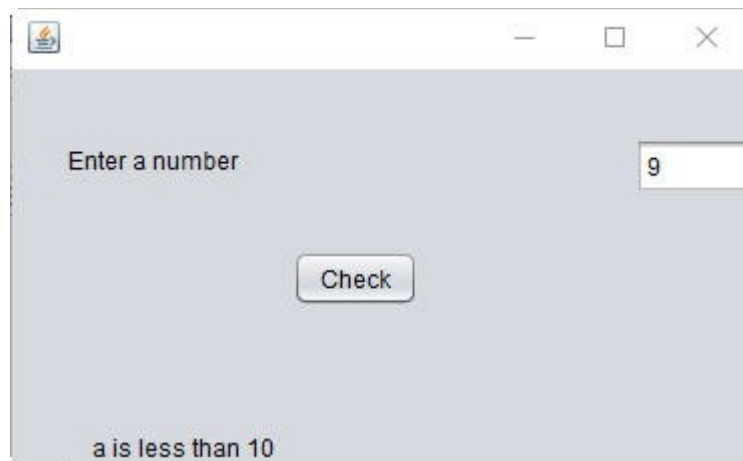
Coding for Check Button

```

int a;
a=Integer.parseInt(jTextField1.getText());
if(a>10)
{
jLabel2.setText("a is greater than 10");
}
else
{
jLabel2.setText("a is either less than or equal to 10");
}

```

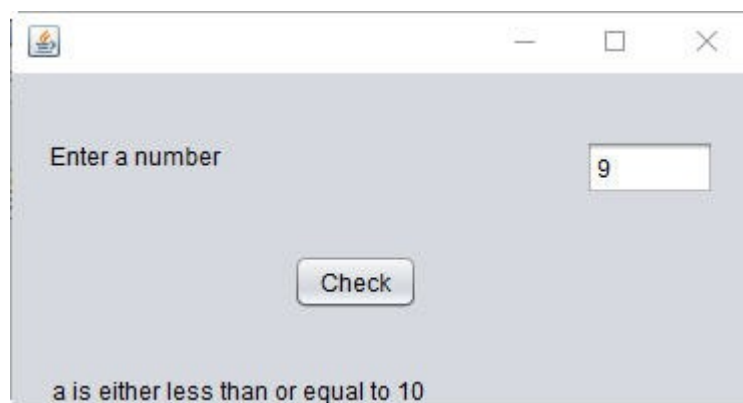
33. Program to check whether a is less than 10 or not



Coding for Check Button

```
int a;
a=Integer.parseInt(jTextField1.getText());
if(a<10)
{
jLabel2.setText("a is less than 10");
}
else
{
jLabel2.setText("a is either greater than or equal to 10");
}
```

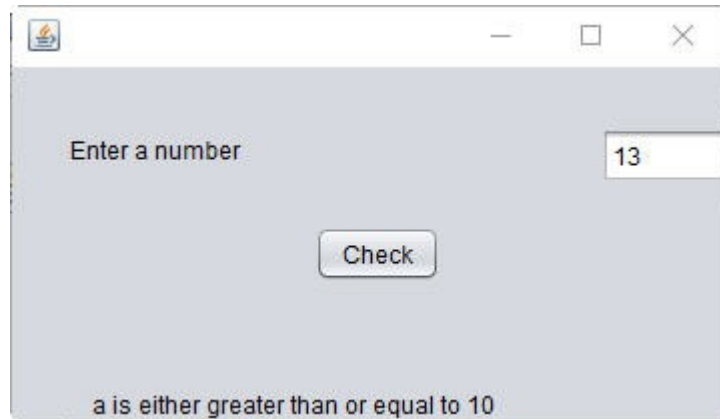
34. Program to check whether a is greater than 10 or less than 10



Coding for Check Button

```
int a;
a=Integer.parseInt(jTextField1.getText());
if(a>10)
{
jLabel2.setText("a is greater than 10");
}
else
{
jLabel2.setText("a is either less than or equal to 10");
}
```

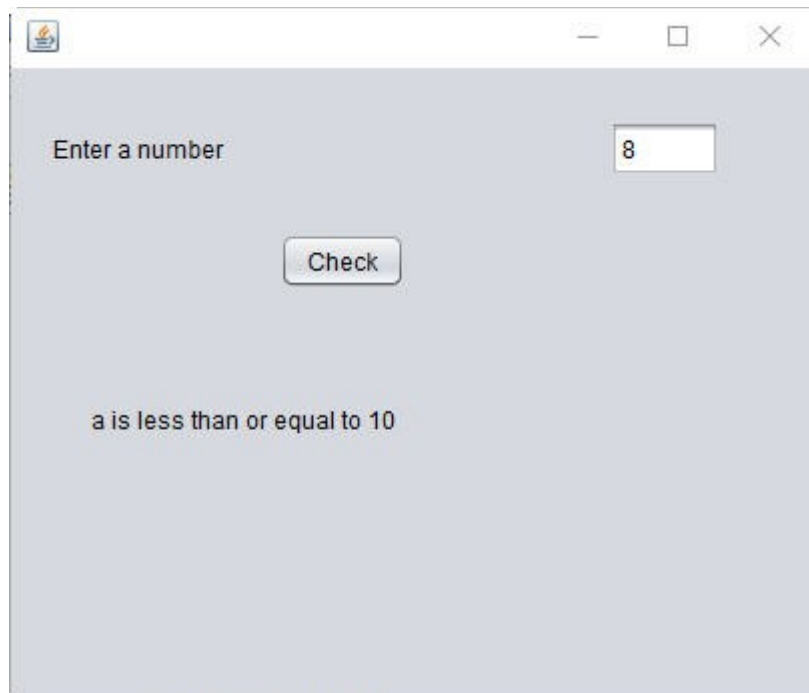
35. Program to check whether a is greater than 10 or less than or equal to 10



Coding for Check Button

```
int a;  
a=Integer.parseInt(jTextField1.getText());  
if(a>=10)  
{  
jLabel2.setText("a is either greater than or equal to 10");  
}  
else  
{  
jLabel2.setText("a is less than 10");  
}
```

36. Program to check whether a is less than or greater than or equal to 10



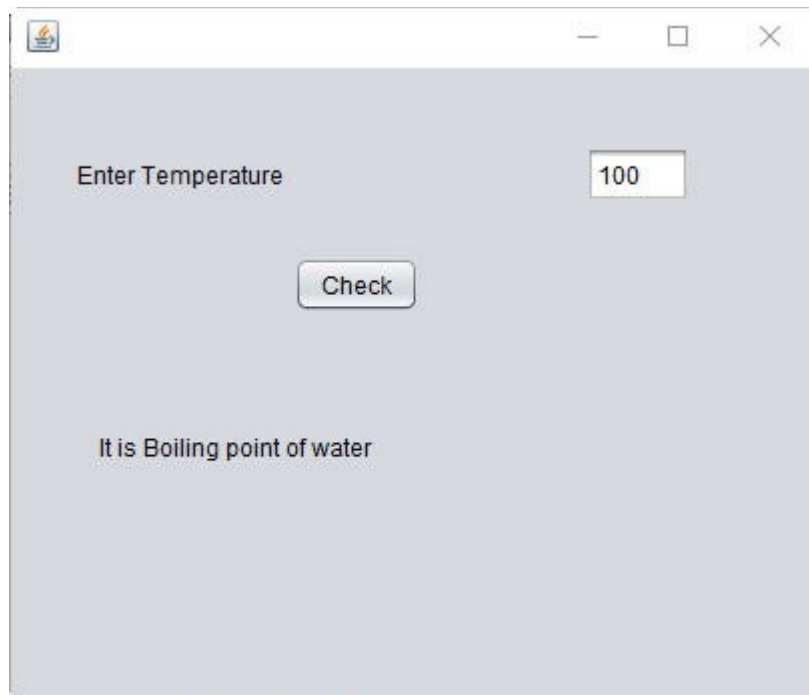
Coding for Check Button

```

int a;
a=Integer.parseInt(jTextField1.getText());
if(a<=10)
{
jLabel2.setText("a is less than or equal to 10");
}
else
{
jLabel2.setText("a is greater than 10");
}

```

37. Program to input temperature from user and check whether it is equal to boiling point of water or not



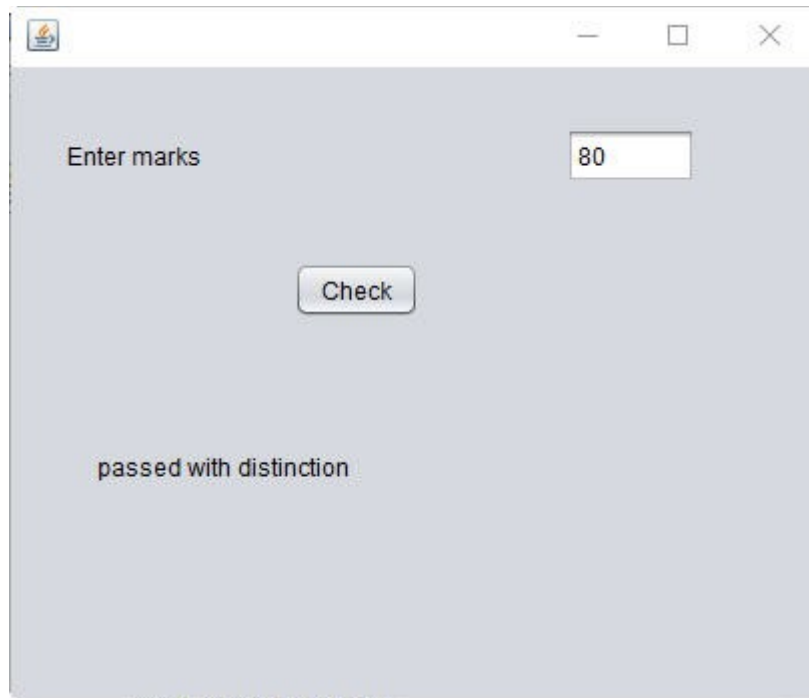
Coding for Check Button

```

int temp;
temp=Integer.parseInt(jTextField1.getText());
if(temp==100)
{
jLabel2.setText("It is Boiling point of water");
}
else
{
jLabel2.setText("It is not boiling point of water");
}

```

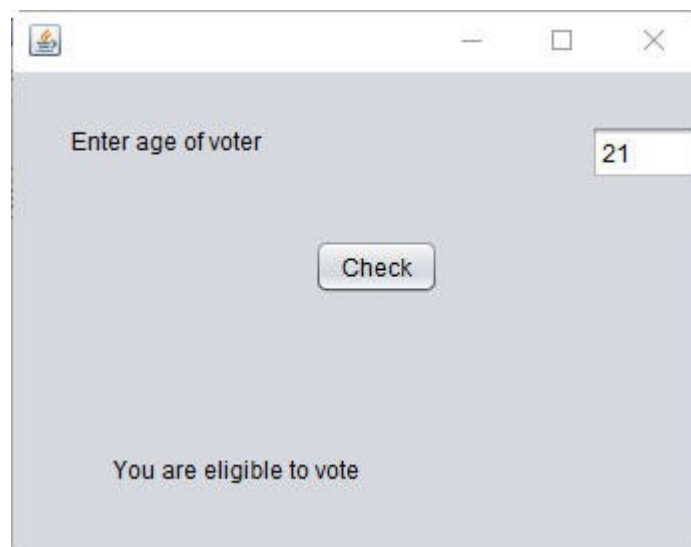
38. Program to input marks from user and check whether student has passed with distinction or not. Marks more than 75 or equal to 75 means passed with distinction



Coding for Check Button

```
int marks;  
marks=Integer.parseInt(jTextField1.getText());  
if(marks>=75)  
{  
    jLabel2.setText("passed with distinction");  
}  
else  
{  
    jLabel2.setText("pass");  
}
```

39. Program to input age of a person and check whether person is eligible to vote or not, person with age greater than 18 or equal to 18 is eligible to vote



Coding for Check Button

```

int age;
age=Integer.parseInt(jTextField1.getText());
if(age>=18)
{
    jLabel2.setText("You are eligible to vote");
}
else
{
    jLabel2.setText("You are not eligible to vote");
}

```

40. Program to input two numbers and check whether number 1 is greater than number 2



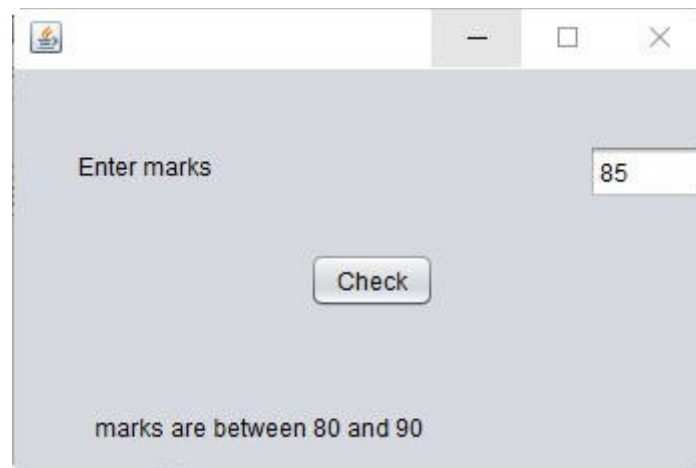
Coding for Check Button

```

int a,b;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
if(a>b)
{
    jLabel3.setText("number 1 is greater than number 2");
}
else
{
    jLabel3.setText("number 2 is greater than number 1");
}

```

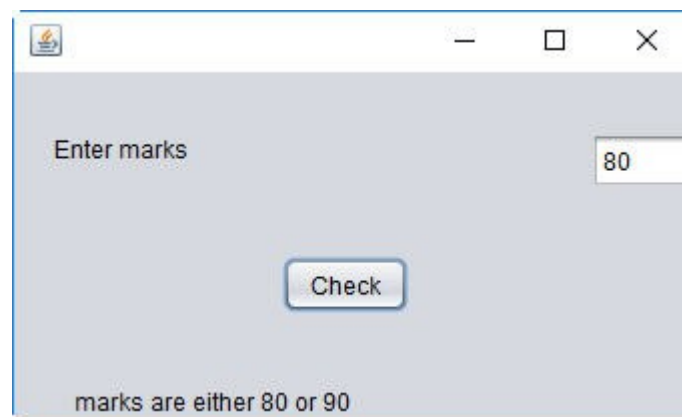
41. Program to input marks from user and check whether marks are between 80 and 90



### Coding for Check Button

```
int marks;
marks=Integer.parseInt(jTextField1.getText());
if((marks>=80) && (marks<=90))
{
    jLabel2.setText("marks are between 80 and 90");
}
else
{
    jLabel2.setText("marks are not between 80 and 90");
}
```

42. Program to input marks from user and check whether marks are equal to 80 or 90



### Coding for Check Button

```
int marks;
marks=Integer.parseInt(jTextField1.getText());
if((marks==80) || (marks==90))
{
    jLabel2.setText("marks are either 80 or 90");
}
else
{
    jLabel2.setText("marks are neither 80 nor 90");
}
```



}

43. Program to input three numbers and find largest of them without using fourth variable

A Java Swing window titled "Enter number 1", "Enter number 2", and "Enter number 3". It contains three text input fields with values 10, 9, and 7 respectively. Below the inputs is a "Check" button. At the bottom of the window, the text "10 is largest" is displayed.

Coding for Check Button

```
int marks;  
marks=Integer.parseInt(jTextField1.getText());  
if((marks==80) || (marks==90))  
{  
    jLabel2.setText("marks are either 80 or 90");  
}  
else  
{  
    jLabel2.setText("marks are neither 80 nor 90");  
}
```

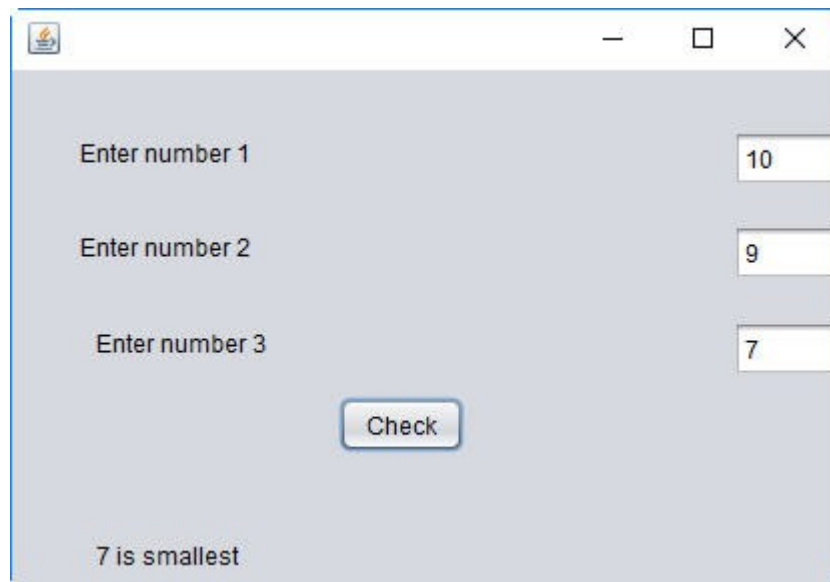
44. Program to input three numbers from user and find largest of them using a fourth variable

A Java Swing window titled "Enter number 1", "Enter number 2", and "Enter number 3". It contains three text input fields with values 10, 9, and 7 respectively. Below the inputs is a "Check" button. At the bottom of the window, the text "10 is largest" is displayed.

### Coding for Check Button

```
int a,b,c,max;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
c=Integer.parseInt(jTextField3.getText());
max=a;
if(b>max)
{
max=b;
}
if(c>max)
{
max=c;
}
jLabel4.setText(max + " is largest");
```

45. Program to input three numbers and find smallest of them without using fourth variable

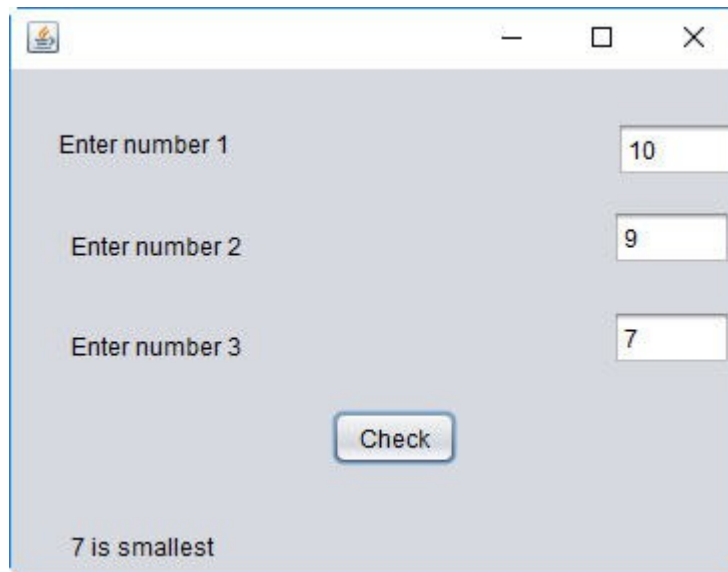


### Coding for Check Button

```
int a,b,c;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
c=Integer.parseInt(jTextField3.getText());
if((a<b) && (a<c))
{
jLabel4.setText(a + " is smallest");
}
if((b<a) && (b<c))
{
jLabel4.setText(b + " is smallest");
}
if((c<a) && (c<b))
{
jLabel4.setText(c + " is smallest");
}
```

}

46. Program to input three numbers and find smallest of them using fourth variable

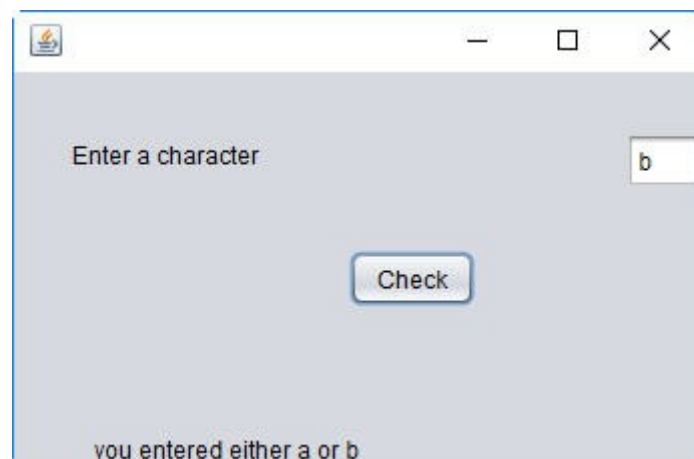


A Java Swing window titled "Enter number 1", "Enter number 2", and "Enter number 3". It contains three text input fields with values 10, 9, and 7 respectively. A "Check" button is located below the input fields. At the bottom of the window, the text "7 is smallest" is displayed.

Coding for Check Button

```
int a,b,c,min;  
a=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
c=Integer.parseInt(jTextField3.getText());  
min=a;  
if(b<min)  
{  
    min=b;  
}  
if(c<min)  
{  
    min=c;  
}  
jLabel4.setText(min + " is smallest");
```

47. Program to input a character from user and check whether it is equal to a or b

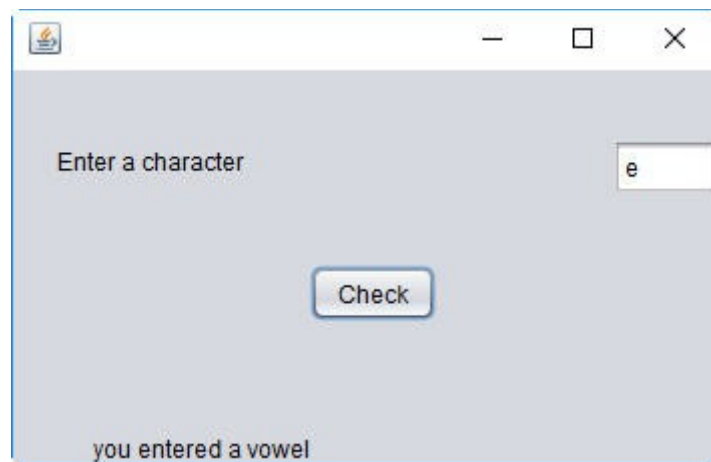


A Java Swing window titled "Enter a character". It contains a text input field with the value "b". A "Check" button is located below the input field. At the bottom of the window, the text "you entered either a or b" is displayed.

### Coding for Check Button

```
char ch;  
ch=jTextField1.getText().charAt(0);  
if((ch=='a') || (ch=='b'))  
{  
    jLabel2.setText("you entered either a or b");  
}  
else  
{  
    jLabel2.setText("you have neither entered a nor b");  
}
```

48. Program to input a character from user and check whether it is vowel or not using if-else statement

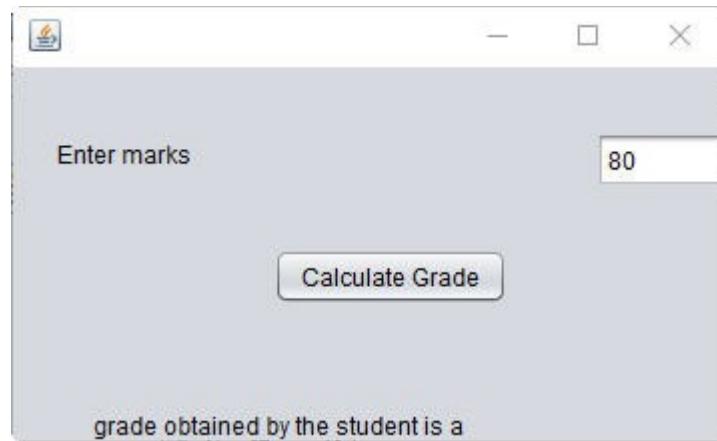


### Coding for Check Button

```
char ch;  
ch=jTextField1.getText().charAt(0);  
if((ch=='a') || (ch=='e') || (ch=='i') || (ch=='o') || (ch=='u'))  
{  
    jLabel2.setText("you entered a vowel");  
}  
else  
{  
    jLabel2.setText("you have not entered a vowel");  
}
```

49. Program to input marks of user and compute grade of user based on following table

$\geq 80$ and $\leq 100$	a
$\geq 70$ and $< 80$	b
$\geq 60$ and $< 70$	c
$< 60$	d



### Coding for Calculate Grade Button

```
int marks;
char grade;
marks=Integer.parseInt(jTextField1.getText());
if((marks>=80) &&(marks<=100))
{
    grade='a';
}
else if((marks>=70) && (marks<80))
{
    grade='b';
}
else if((marks>=60) && (marks<70))
{
    grade='c';
}
else
{
    grade='d';
}
jLabel2.setText("grade obtained by the student is " + grade);
```

50. Program to input marks in five subjects from user and calculate total, percentage and grade of student based on following table

$\geq 80$ and $\leq 100$	a
$\geq 70$ and $< 80$	b
$\geq 60$ and $< 70$	c
$< 60$	d

Enter marks 1: 67

Enter marks 2: 89

Enter marks 3: 78

Enter marks 4: 77

Enter marks 5: 89

Calculate Grade

Total marks are : 400.0

Percentage is : 80.0

grade obtained by the student is a

### Coding for Calculate Grade Button

```
int marks1,marks2,marks3,marks4,marks5;
double total=0,percentage=0;
char grade;
marks1=Integer.parseInt(jTextField1.getText());
marks2=Integer.parseInt(jTextField2.getText());
marks3=Integer.parseInt(jTextField3.getText());
marks4=Integer.parseInt(jTextField4.getText());
marks5=Integer.parseInt(jTextField5.getText());
total=marks1+marks2+marks3+marks4+marks5;
percentage=total/5;
if((percentage>=80) &&(percentage<=100))
{
grade='a';
}
else if((percentage>=70) && (percentage<80))
{
grade='b';
}
else if((percentage>=60) && (percentage<70))
{
grade='c';
}
else
{
grade='d';
}
jLabel6.setText("Total marks are : " + total);
jLabel7.setText("Percentage is : "+percentage);
jLabel8.setText("grade obtained by the student is " + grade);
```

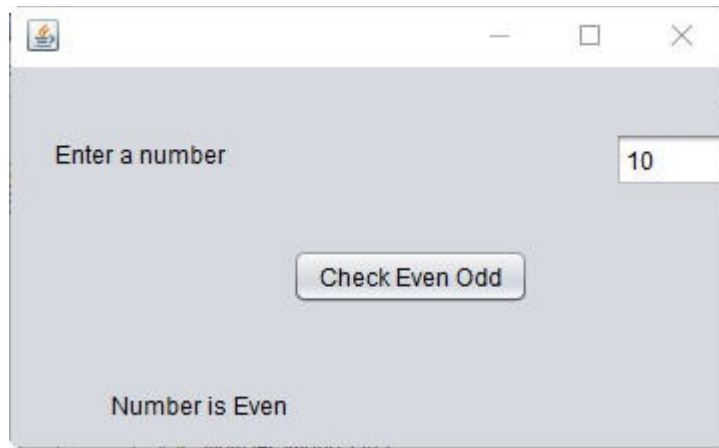
51. Program to input basic salary from user and calculate hra and da and netpay based on following table

Salary $\geq$ 6000 and $\leq$ 10000	Hra = 25% Da = 20%
Salary $\geq$ 2000 and $<$ 6000	Hra = 20% Da = 15%
$<$ 2000	Hra = 15% Da = 10%

Coding for Calculate Button

```
double salary,hra=0,da=0,netpay=0;
salary=Double.parseDouble(jTextField1.getText());
if((salary>=6000) && (salary<=10000))
{
    hra=0.25f*salary;
    da=0.2f*salary;
}
else if((salary>=2000) && (salary<6000))
{
    hra=0.2f*salary;
    da=0.15f*salary;
}
else
{
    hra=0.15f*salary;
    da=0.1f*salary;
}
netpay=salary+hra+da;
jLabel2.setText("HRA is : " +hra);
jLabel3.setText("DA is : " + da);
jLabel4.setText("Net Pay is : " + netpay);
```

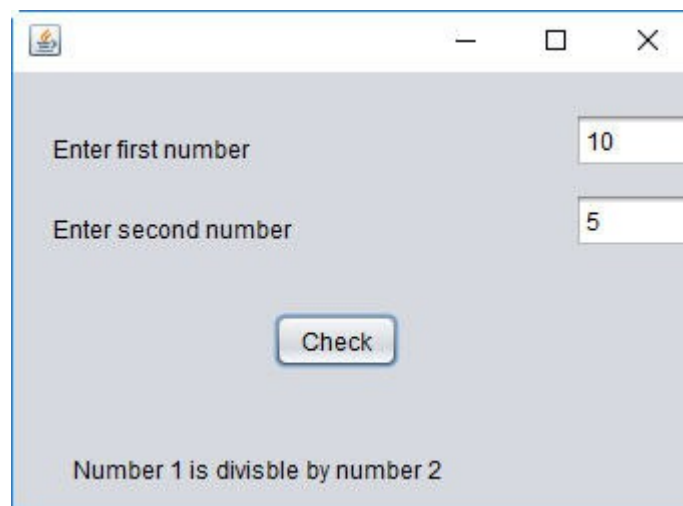
52. Program to input a number and check whether it is even or odd



### Coding for Check Even Odd Button

```
int a;
a=Integer.parseInt(jTextField1.getText());
if(a%2==0)
{
    jLabel2.setText("Number is Even");
}
else
{
    jLabel2.setText("Number is Odd");
}
```

53. Program to input two numbers and check whether number 1 is divisible by number 2 or not



### Coding for Check Button

```
int a,b;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
if(a%b==0)
{
    jLabel3.setText("Number 1 is divisible by number 2");
}
else
```

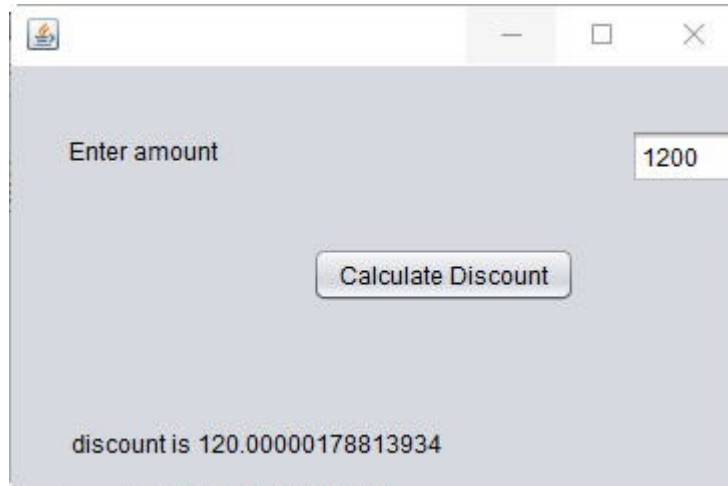


```

{
    jLabel3.setText("Number 1 is not divisble by number 2");
}

```

54. Program to input amount from user and calculate discount as based on following condition  
if amount  $\geq$  1000 discount is 10% else 5 %



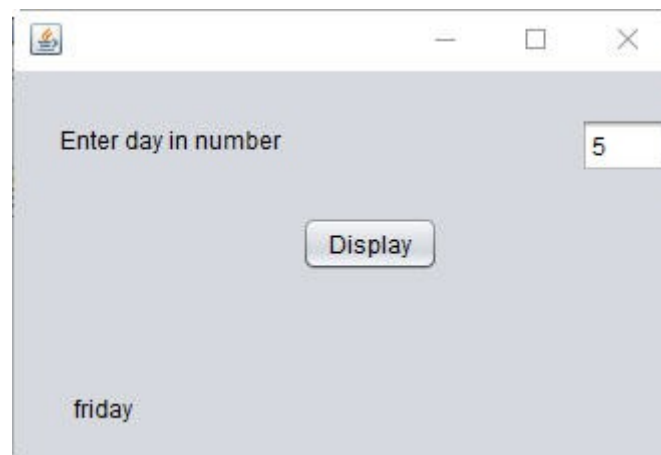
Coding for Calculate Discount Button

```

double price,discount;
price=Double.parseDouble(jTextField1.getText());
if(price<=1000)
{
    discount=0.1f*price;
}
else
{
    discount=0.05f*price;
}
jLabel2.setText("discount is " + discount);

```

55. Program to input day in number and display day in words using switch statement



Coding for Display Button

```
int day;  
day=Integer.parseInt(jTextField1.getText());  
switch(day)  
{  
case 1:  
jLabel2.setText("monday");  
break;  
case 2:  
jLabel2.setText("tuesday");  
break;  
case 3:  
jLabel2.setText("wednesday");  
break;  
case 4:  
jLabel2.setText("thursday");  
break;  
case 5:  
jLabel2.setText("friday");  
break;  
case 6:  
jLabel2.setText("saturday");  
break;  
case 7:  
jLabel2.setText("sunday");  
break;  
default:  
jLabel2.setText("enter a day between 1 and 7");  
}
```

56. Program to input month in number and display month in words using switch statement



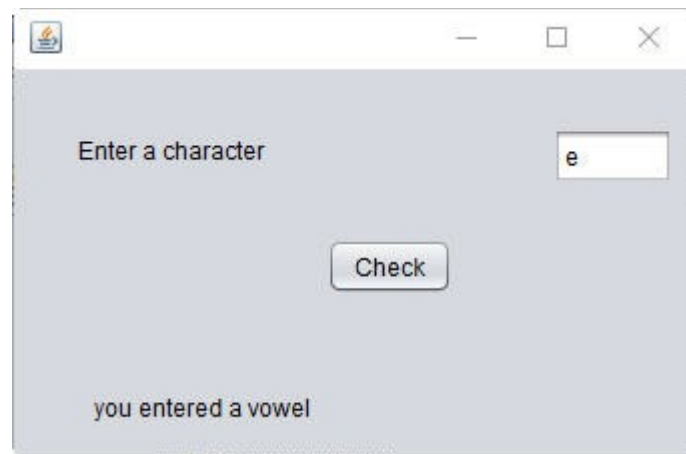
Coding for Display Button

```

int month;
month=Integer.parseInt(jTextField1.getText());
switch(month)
{
case 1:
jLabel2.setText("january");
break;
case 2:
jLabel2.setText("february");
break;
case 3:
jLabel2.setText("march");
break;
case 4:
jLabel2.setText("april");
break;
case 5:
jLabel2.setText("may");
break;
case 6:
jLabel2.setText("june");
break;
case 7:
jLabel2.setText("july");
break;
case 8:
jLabel2.setText("august");
break;
case 9:
jLabel2.setText("september");
break;
case 10:
jLabel2.setText("october");
break;
case 11:
jLabel2.setText("november");
break;
case 12:
jLabel2.setText("december");
break;
default:
jLabel2.setText("enter a month between 1 and 12");
}

```

57. Program to input a character from user and check whether it is vowel or not using switch statement



### Coding for Check Button

```
char ch;  
ch=jTextField1.getText().charAt(0);  
switch(ch)  
{  
case 'a':  
jLabel2.setText("you entered a vowel");  
break;  
case 'e':  
jLabel2.setText("you entered a vowel");  
break;  
case 'i':  
jLabel2.setText("you entered a vowel");  
break;  
case 'o':  
jLabel2.setText("you entered a vowel");  
break;  
case 'u':  
jLabel2.setText("you entered a vowel");  
break;  
default:  
jLabel2.setText("enter a vowel (a,e,i,o,u)");  
}
```

58. Program to input three numbers and display numbers in ascending order



### Coding for Sort Button

```
int a,b,c,low,low2,low3;  
a=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
c=Integer.parseInt(jTextField3.getText());  
  
    low=a;  
low2=a;  
low3=a;  
    if(b<low)  
    {  
        low=b;  
    }  
    if(c<low)  
    {  
        low=c;  
    }  
    if(a==low)  
    {  
        if(b<c)  
        {  
            low2=b;  
            low3=c;  
        }  
        else  
        {  
            low2=c;  
            low3=b;  
        }  
    }  
    else  
        if(b==low)  
        {  
            if(a<c)
```

```

        {
            low2=a;
            low3=c;
        }
        else
        {
            low2=c;
            low3=a;
        }
    }
    else
    {
        if(c==low)
        {
            if(a<b)
            {
                low2=a;
                low3=b;
            }
            else
            {
                low2=b;
                low3=a;
            }
        }
    }
    jLabel4.setText(low + "," + low2 + "," + low3);

```

59. Program to input three numbers and sort numbers in descending order

Enter number 1: 10

Enter number 2: 9

Enter number 3: 7

Sort

10,9,7

Coding for Sort Button

```

int a,b,c,big,big2,big3;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
c=Integer.parseInt(jTextField3.getText());

```

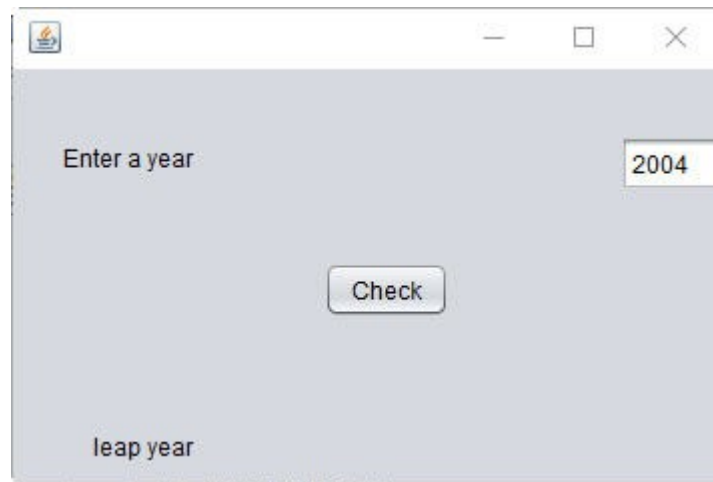
```

big=a;
big2=a;
big3=a;
if(b>big)
{
    big=b;
}
if(c>big)
{
    big=c;
}
if(a==big)
{
    if(b>c)
    {
        big2=b;
        big3=c;
    }
    else
    {
        big2=c;
        big3=b;
    }
}
else
    if(b==big)
    {
        if(a>c)
        {
            big2=a;
            big3=c;
        }
        else
        {
            big2=c;
            big3=a;
        }
    }
    else
        if(c==big)
        {
            if(a>b)
            {
                big2=a;
                big3=b;
            }
            else
            {
                big2=b;
                big3=a;
            }
        }
}

```

```
jLabel4.setText(big + "," + big2 + "," + big3);
```

60. Program to input year in number and check whether year is a leap year or not

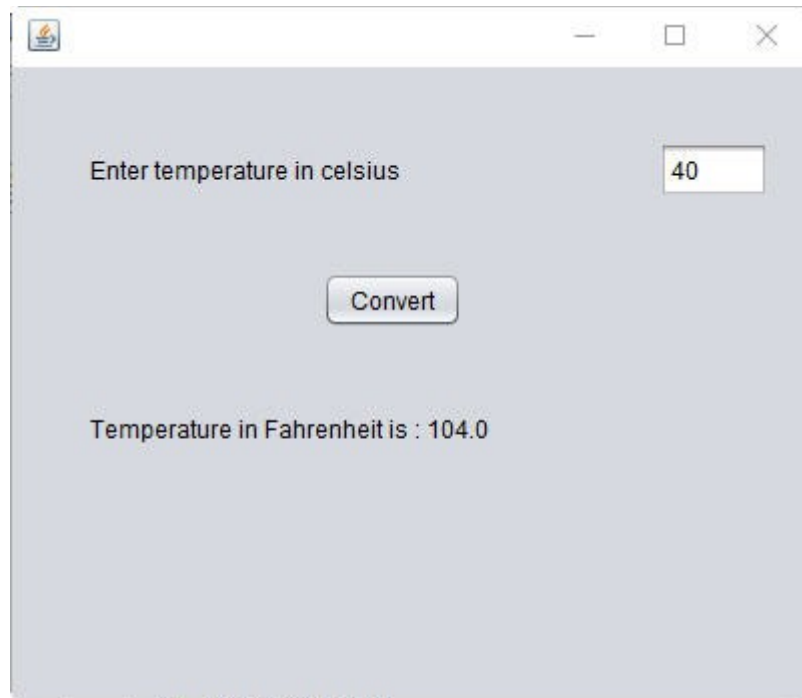


Coding for Check Button

```
int year;
year=Integer.parseInt(jTextField1.getText());
if((year%100==0) || (year%400==0))
{
    jLabel2.setText("leap year");
}
else
{
    if(year%4==0)
    {
        jLabel2.setText("leap year");
    }
    else
    {
        jLabel2.setText("not a leap year");
    }
}
```

61. Program to input temperature in celsius and convert it to fahrenheit using formula  
 $conv = (1.8 * temp) + 32;$

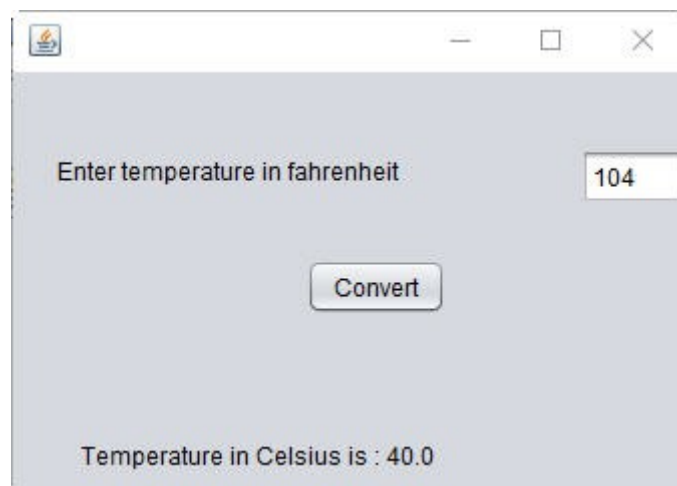




Coding for Convert Button

```
double temp,conv;
temp=Double.parseDouble(jTextField1.getText());
conv=(1.8*temp)+32;
jLabel2.setText("Temperature in Fahrenheit is : " + conv);
```

62. Program to input temperature in fahrenheit and convert it to celsius



Coding for Convert Button

```
double temp,conv;
temp=Double.parseDouble(jTextField1.getText());
conv=(temp-32)/1.8;
jLabel2.setText("Temperature in Celsius is : " + conv);
```

63. Program to display numbers from 0 to 9 using for loop



Coding for Display Button

```
int i;  
for(i=0;i<10;i++)  
{  
jLabel1.setText(jLabel1.getText()+ " " + i);  
}
```

64. Program to display numbers from 0 to 10 using for loop



Coding for Display Button

```
int i;  
for(i=0;i<=10;i++)  
{  
jLabel1.setText(jLabel1.getText()+ " " + i);  
}
```

65. Program to display numbers from 9 to 0 using for loop (in reverse order)



Coding for Display Button

```
int i;
for(i=9;i>=0;i--)
{
jLabel1.setText(jLabel1.getText()+" "+i);
}
```

66. Program to display numbers from 10 to 0 using for loop (in reverse order)



Coding for Display Button

```
int i;
for(i=10;i>=0;i--)
{
jLabel1.setText(jLabel1.getText()+" "+i);
}
```

67. Program to print numbers from 0 to 10 using for loop with a gap of 2 between the numbers



Coding for Display Button

```
int i;
for(i=0;i<=10;i+=2)
{
jLabel1.setText(jLabel1.getText()+ " " + i);
}
```

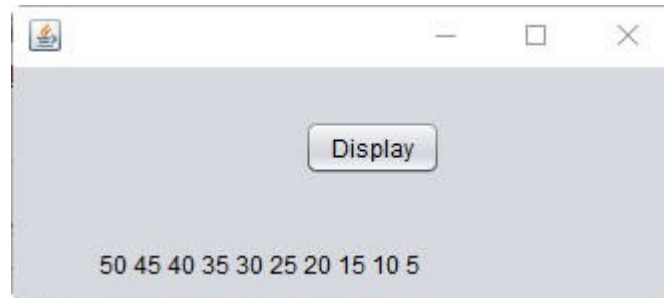
68. Program to display numbers from 0 to 50 using for loop with a gap of 5 between the numbers



Coding for Display Button

```
int i;
for(i=0;i<=50;i+=5)
{
jLabel1.setText(jLabel1.getText()+ " " + i);
}
```

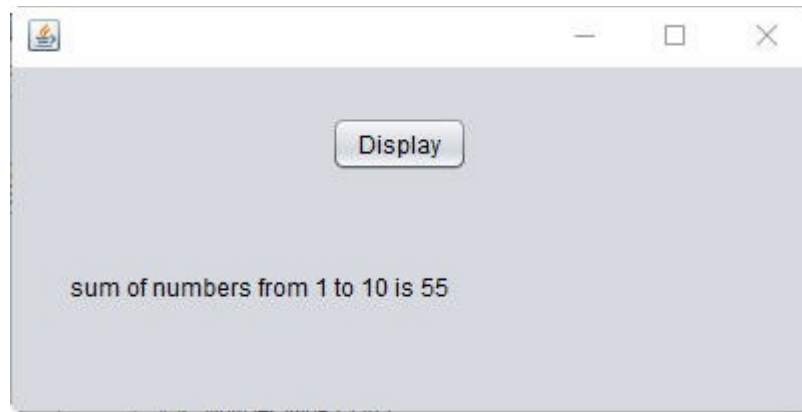
69. Program to display numbers from 50 to 1 using for loop (in reverse order)



Coding for Display Button

```
int i;
for(i=50;i>=1;i-=5)
{
jLabel1.setText(jLabel1.getText()+ " " + i);
}
```

70 . Program to calculate sum of numbers from 1 to 10 using for loop



#### Coding for Display Button

```
int i;  
int sum=0;  
for(i=1;i<=10;i++)  
{  
    sum=sum+i;  
}  
jLabel1.setText("sum of numbers from 1 to 10 is " + sum);
```

71. Program to calculate sum of even numbers from 1 to 10 using for loop



#### Coding for Display Button

```
int i;  
int sumeven=0;  
for(i=1;i<=10;i++)  
{  
    if(i%2==0)  
    {  
        sumeven=sumeven+i;  
    }  
}  
jLabel1.setText("sum of even numbers from 1 to 10 is " + sumeven);
```

72. Program to calculate sum of odd numbers from 1 to 10 using for loop



### Coding for Display Button

```
int i;
int sumodd=0;
for(i=1;i<=10;i++)
{
if(i%2!=0)
{
sumodd=sumodd+i;
}
}
jLabel1.setText("sum of odd numbers from 1 to 10 is " + sumodd);
```

73. Program to calculate sum of even numbers and odd numbers from 1 to 10 using for loop

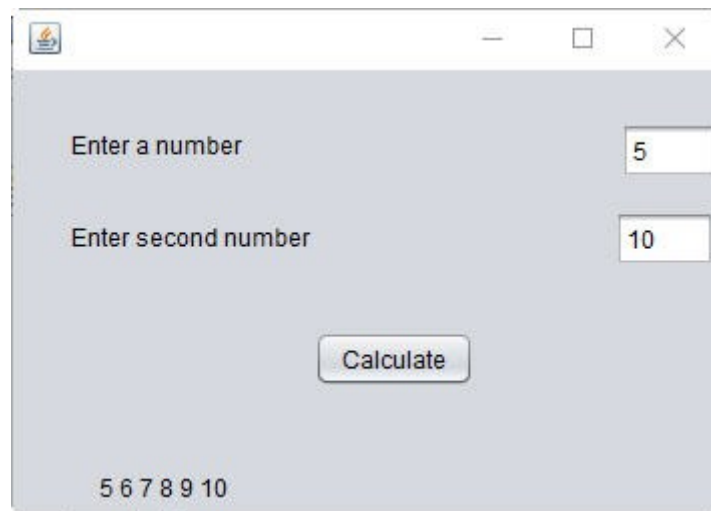


### Coding for Display Button

```
int i;
int sumeven=0;
int sumodd=0;
for(i=1;i<=10;i++)
{
if(i%2==0)
{
sumeven=sumeven+i;
}
else
{
sumodd=sumodd+i;
}
}
```

```
jLabel1.setText("sum of even numbers from 1 to 10 is " + sumeven);  
jLabel2.setText("sum of odd numbers from 1 to 10 is " + sumodd);
```

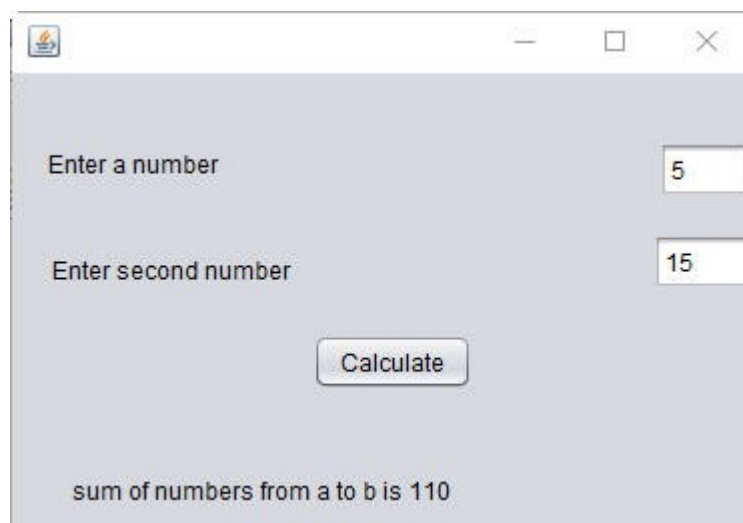
74. Program to input two numbers and display numbers between them



Coding for Calculate Button

```
int a,b;  
int i;  
a=Integer.parseInt(jTextField1.getText());  
b=Integer.parseInt(jTextField2.getText());  
for(i=a;i<=b;i++)  
{  
jLabel3.setText(jLabel3.getText()+ " " + i);  
}
```

75. Program to input two numbers and calculate sum of numbers between two numbers using for loop



Coding for Calculate Button

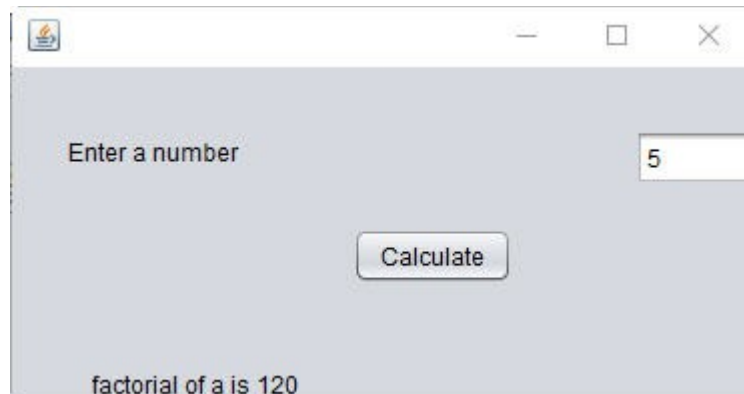
```
int a,b;
```

```

int i;
int sum=0;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
for(i=a;i<=b;i++)
{
sum=sum+i;
}
jLabel3.setText("sum of numbers from a to b is " + sum);

```

76. Program to input a number and calculate factorial of number using for loop



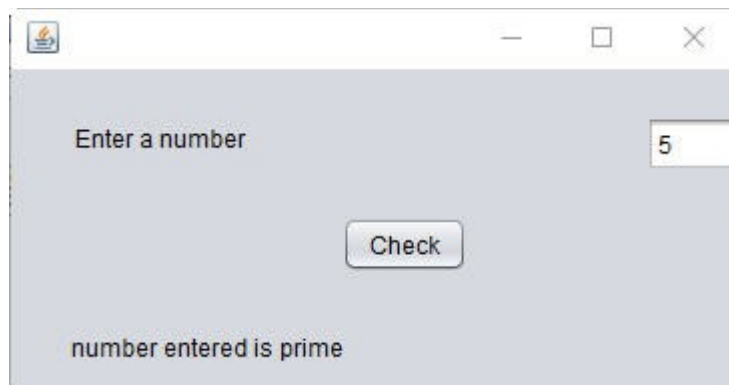
Coding for Calculate Button

```

int a;
int i;
int fact=1;
a=Integer.parseInt(jTextField1.getText());
for(i=1;i<=a;i++)
{
fact=fact*i;
}
jLabel2.setText("factorial of a is " + fact);

```

77. Program to input a number and check whether the number is prime or not using for loop



Coding for Check Button

```

int i;

```



```

int a;
int prime=1;
a=Integer.parseInt(jTextField1.getText());
for(i=2;i<=a/2;i++)
{
if(a%i==0)
{
prime=0;
break;
}
}
if(prime==1)
{
jLabel2.setText("number entered is prime ");
}
else
{
jLabel2.setText("number entered is not prime");
}
}

```

78. Program to display first 11 terms of fibonacci series using for loop



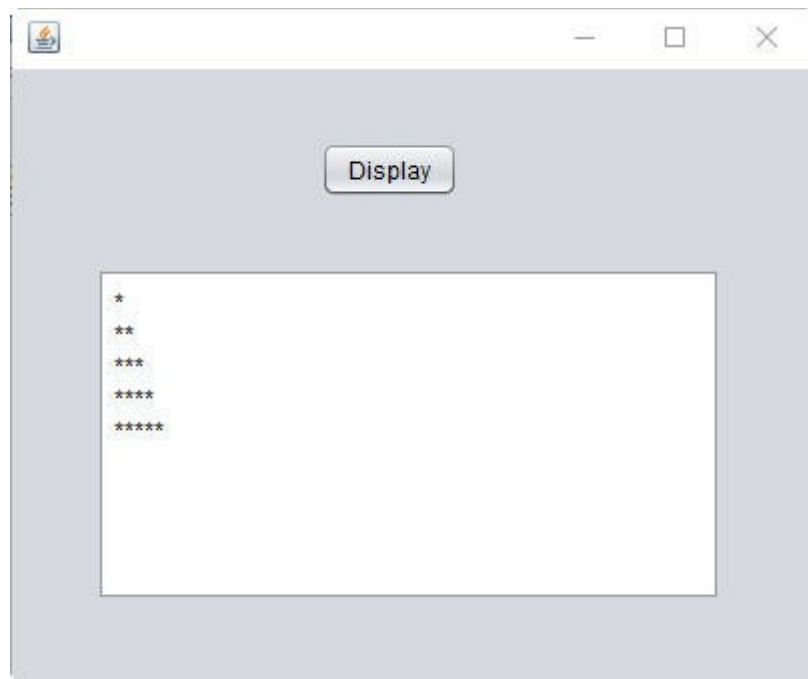
Coding for Display Button

```

int i;
int a=1;
int b=1;
int c;
jLabel1.setText(jTextField1.getText() + " " + a);
jLabel1.setText(jTextField1.getText() + " " + b);
for(i=2;i<=10;i++)
{
c=a+b;
jLabel1.setText(jTextField1.getText() + " " + c);
a=b;
b=c;
}

```

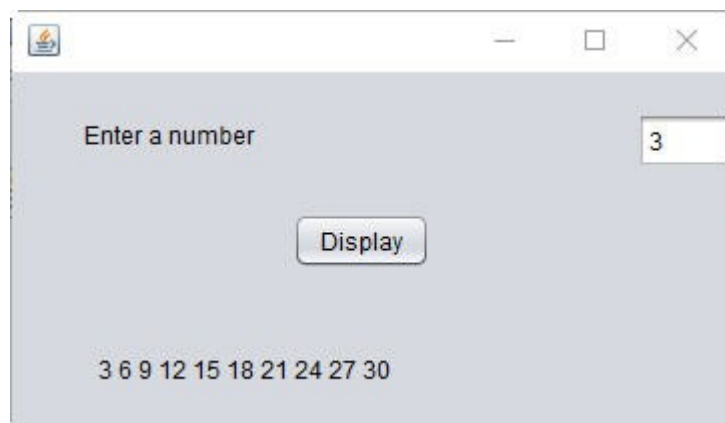
79. Program to print pattern of stars in JTextArea using for loop



#### Coding for Display Button

```
int i,j;
for(i=1;i<=5;i++)
{
for(j=1;j<=i;j++)
{
jTextArea1.append("*");
}
jTextArea1.append("\n");
}
```

80. Program to input a number and display table of number from 1 to 10 using for loop



#### Coding for Display Button

```
int i,a;
a=Integer.parseInt(jTextField1.getText());
for(i=1;i<=10;i++)
{
jLabel2.setText(jLabel2.getText()+ " " + i*a);
}
```

```
}
```

81. Program to display numbers from 0 to 9 using while loop



Coding for Display Button

```
int i;  
i=0;  
while(i<10)  
{  
jLabel1.setText(jLabel1.getText()+ " " + i);  
i++;  
}
```

82. Program to display numbers from 1 to 10 using while loop



Coding for Display Button

```
int i;  
i=1;  
while(i<=10)  
{  
jLabel1.setText(jLabel1.getText()+ " " + i);  
i++;  
}
```

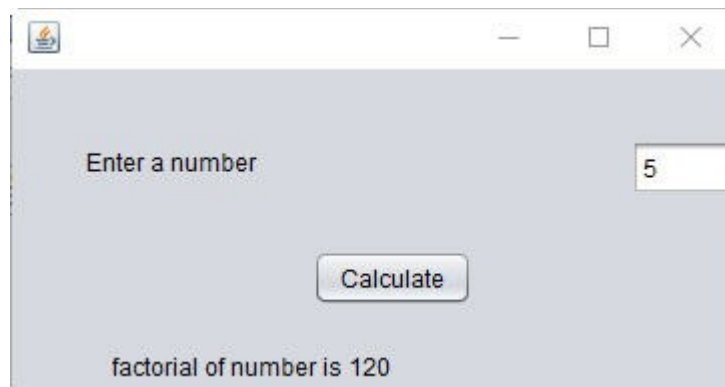
83. Program to display numbers from 1 to 10 with a gap of 2 between the numbers using while loop



#### Coding for Display Button

```
int i;
i=1;
while(i<=10)
{
jLabel1.setText(jLabel1.getText() + " " + i);
i=i+2;
}
```

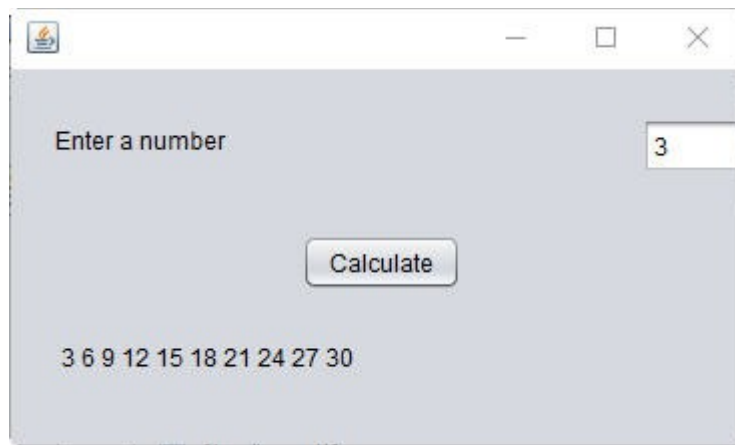
84. Program to input a number and calculate factorial of number using while loop



#### Coding for Calculate Button

```
int i=1;
int a;
int fact=1;
a=Integer.parseInt(jTextField1.getText());
while(i<=a)
{
fact=fact*i;
i++;
}
jLabel2.setText("factorial of number is " + fact);
```

85. Program to input a number and display table of number from 1 to 10 using while loop



Coding for Calculate Button

```
int i,a;
a=Integer.parseInt(jTextField1.getText());
i=1;
while(i<=10)
{
jLabel2.setText(jLabel2.getText()+ " " + a*i);
i++;
}
```

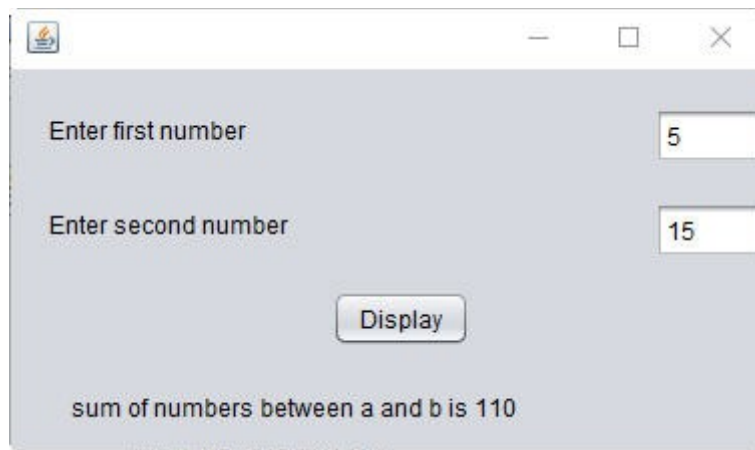
86. Program to calculate sum of numbers from 0 to 10 using while loop



Coding for Display Button

```
int i;
i=1;
int sum=0;
while(i<=10)
{
sum=sum+i;
i++;
}
jLabel1.setText("sum of numbers is " + sum);
```

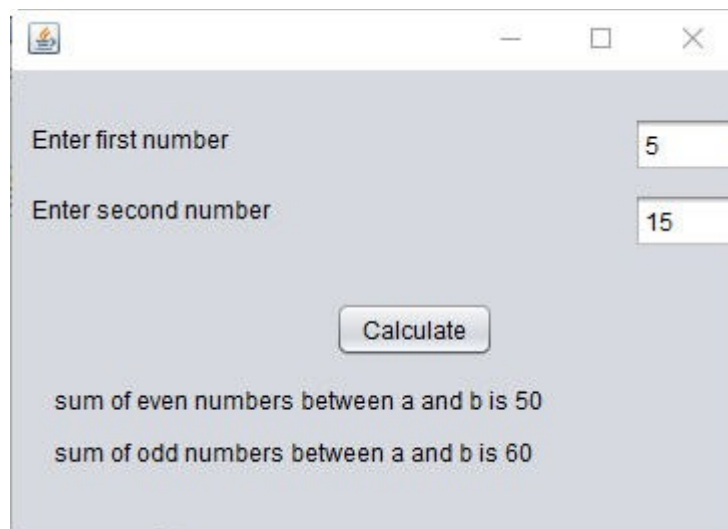
87. Program to input two numbers and calculate sum of numbers between them using while loop



### Coding for Display Button

```
int i,a,b,sum=0;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
i=a;
while(i<=b)
{
sum=sum+i;
i++;
}
jLabel3.setText("sum of numbers between a and b is " + sum);
```

88. Program to input two numbers and calculate sum of even and odd numbers between two numbers using while loop



### Coding for Calculate Button

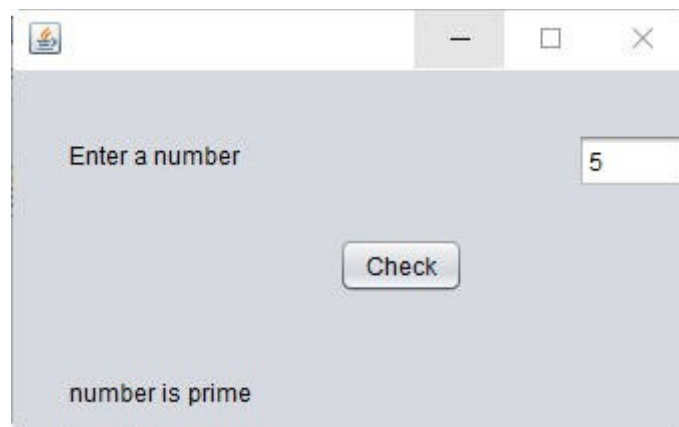
```
int a,b,i;
int sumeven=0;
int sumodd=0;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
i=a;
```

```

while(i<=b)
{
if(i%2==0)
{
sumeven=sumeven+i;
}
else
{
sumodd=sumodd+i;
}
i++;
}
jLabel3.setText("sum of even numbers between a and b is " + sumeven);
jLabel4.setText("sum of odd numbers between a and b is " + sumodd);

```

89. Program to input a number and check whether number is prime or not using while loop



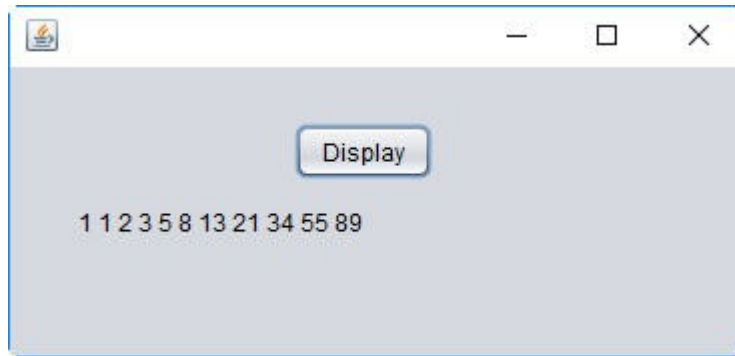
Coding for Check Button

```

int i=2;
int a;
int prime=1;
a=Integer.parseInt(jTextField1.getText());
while(i<=a/2)
{
if(a%i==0)
{
prime=0;
break;
}
i++;
}
if(prime==1)
{
jLabel2.setText("number is prime ");
}
else
{
jLabel2.setText("number is not prime");
}

```

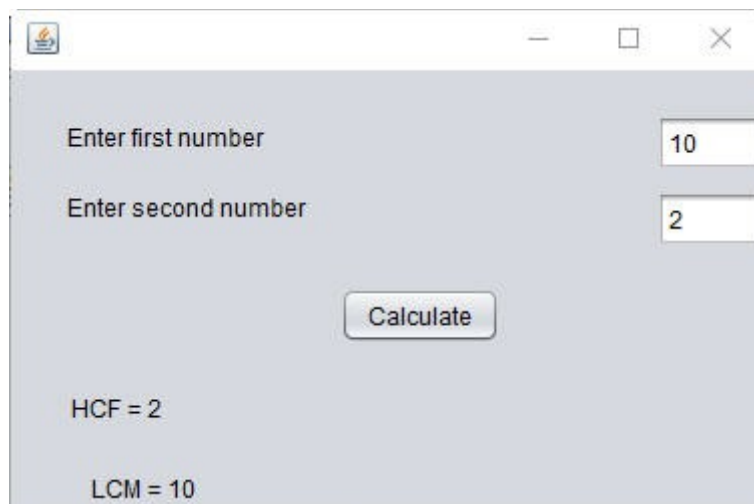
90. Program to display first 11 terms of fibonacci series using while loop



Coding for Display Button

```
int a,b,c,i;
a=1;
b=1;
i=2;
jLabel1.setText(jLabel1.getText()+" "+a);
jLabel1.setText(jLabel1.getText()+" "+b);
while(i<=10)
{
c=a+b;
jLabel1.setText(jLabel1.getText()+" "+c);
a=b;
b=c;
i++;
}
```

91. Program to input two numbers and calculate lcm and hcf of two numbers using while loop



Coding for Calculate Button

```
int a,b,c;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
c=a*b;
```



```

while(a!=b)
{
if(a>b)
a=a-b;
else
b=b-a;
}
jLabel3.setText("HCF = " + a);
jLabel4.setText("LCM = " + c/a);

```

92. Program to display numbers from 1 to 10 using do while loop



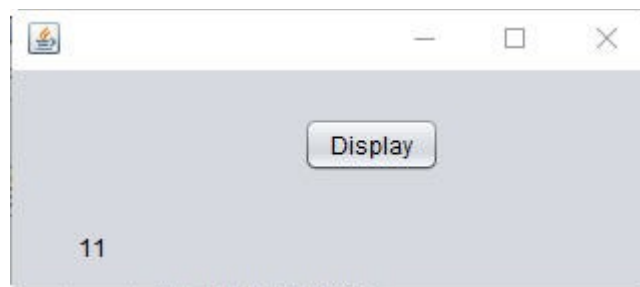
Coding for Display Button

```

int i=1;
do
{
jLabel1.setText(jLabel1.getText()+ " " + i);
i++;
}while(i<=10);

```

93. Program to display number 11 using do while loop example of do while loop



Coding for Display Button

```

int i;
i=11;
do
{
jLabel1.setText(jLabel1.getText()+ " " + i);
i++;
}while(i<=10);

```

94. Program to demonstrate break statement in for loop



Coding for Display Button

```
int i;  
for(i=1;i<=10;i++)  
{  
if(i==5)  
{  
break;  
}  
jLabel1.setText(jLabel1.getText() + " " + i);  
}
```

95. Program to demonstrate break statement in while loop



Coding for Display Button

```
int i=1;  
while(i<10)  
{  
if(i==5)  
{  
break;  
}  
jLabel1.setText(jLabel1.getText() + " " + i);  
i++;  
}
```

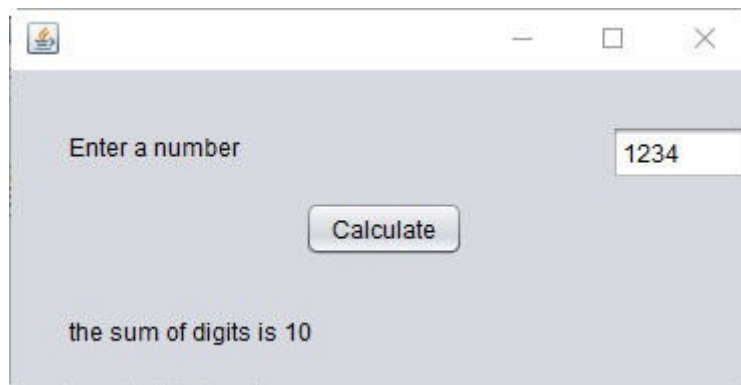
96. Program to demonstrate continue statement in for loop



### Coding for Display Button

```
int i;
for(i=1;i<=10;i++)
{
if(i==5)
{
continue;
}
jLabel1.setText(jLabel1.getText() + " " + i);
}
```

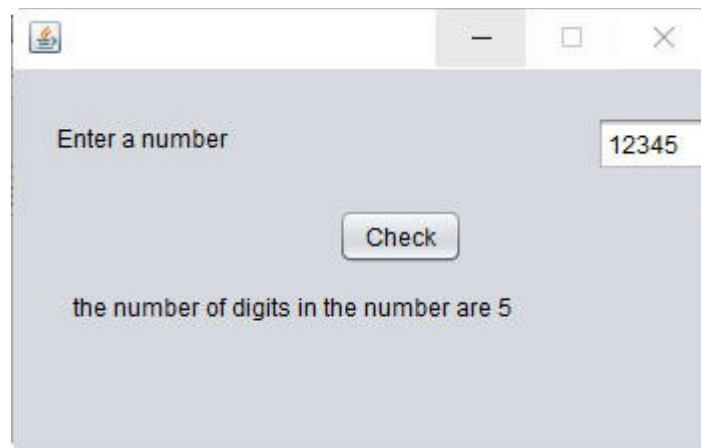
97. Program to input a number and display sum of digits of the number using do while loop



### Coding for Calculate Button

```
int num,digit;
int sum=0;
num=Integer.parseInt(jTextField1.getText());
do
{
digit=num%10;
sum=sum+digit;
num=num/10;
}while(num!=0);
jLabel2.setText("the sum of digits is " + sum);
```

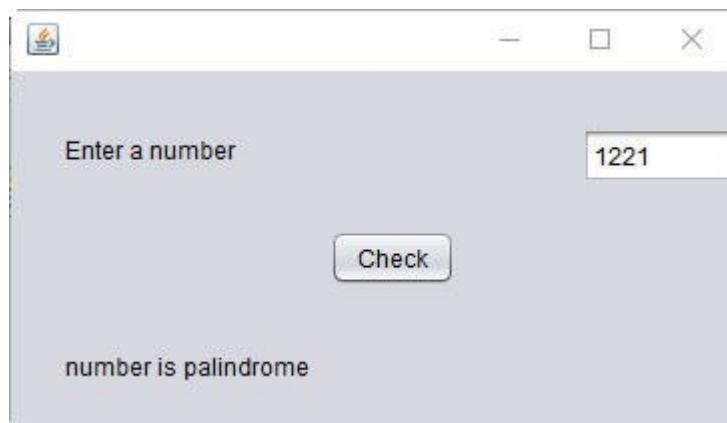
98. Program to input a number and calculate number of digits in the number using do while loop



#### Coding for Check Button

```
int num,digit;
int count=0;
num=Integer.parseInt(jTextField1.getText());
do
{
digit=num%10;
num=num/10;
count++;
}while(num!=0);
jLabel2.setText("the number of digits in the number are " + count);
```

99. Program to input a number and check whether number is palindrome or not using do while loop for example 1221 is palindrome whereas 1234 is not a palindrome



#### Coding for Check Button

```
int n,num,digit,rev=0;
num=Integer.parseInt(jTextField1.getText());
n=num;
do
{
digit=num%10;
rev=(rev*10)+digit;
num=num/10;
}while(num!=0);
```

```

if(n==rev)
{
jLabel2.setText("number is palindrome");
}
else
{
jLabel2.setText("number is not palindrome");
}
}

```

100. Program to input a number and display reverse of the number using do while loop



Coding for Display Button

```

int num,digit,rev=0;
num=Integer.parseInt(jTextField1.getText());
do
{
digit=num%10;
rev=(rev*10)+digit;
num=num/10;
}while(num!=0);
jLabel2.setText("the reverse of number is " + rev);

```

101. Program to input a number and print pattern of numbers using nested for loop

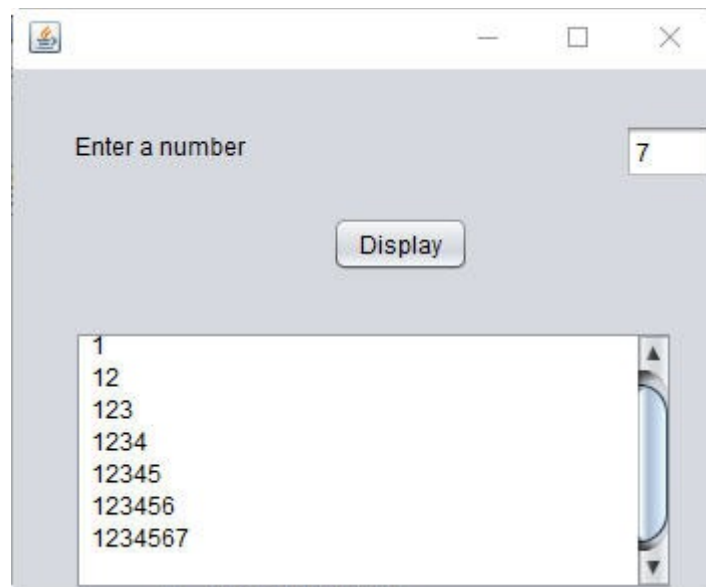
nested for loop means loop within a loop

for a number 5 output will be

```

1
12
123
1234
12345

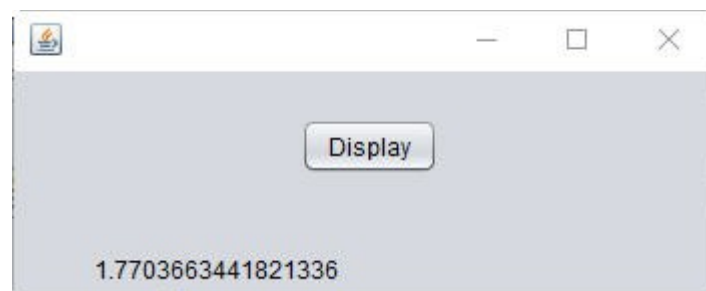
```



Coding for Display Button

```
int n;
int i,j;
n=Integer.parseInt(jTextField1.getText());
for(i=1;i<=n;i++)
{
for(j=1;j<=i;j++)
{
jTextArea1.append(""+j);
}
jTextArea1.append("\n");
}
```

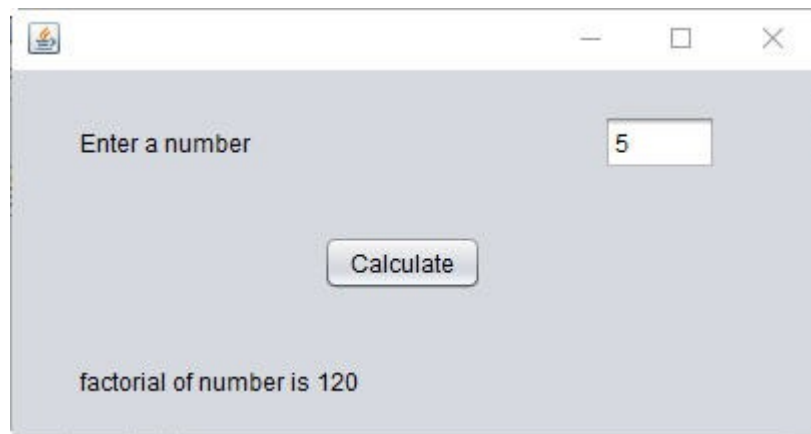
102. Program to calculate sum of series  $1 + 1/4 + 1/7 + 1/10 + \dots + 1/25$  using for loop



Coding for Display Button

```
double i;
double sum=0;
for(i=1;i<=25;i+=3)
{
sum=sum+(1/i);
}
jLabel1.setText(""+sum);
```

103. Program to input a number and calculate factorial of number using for loop with decrement operator



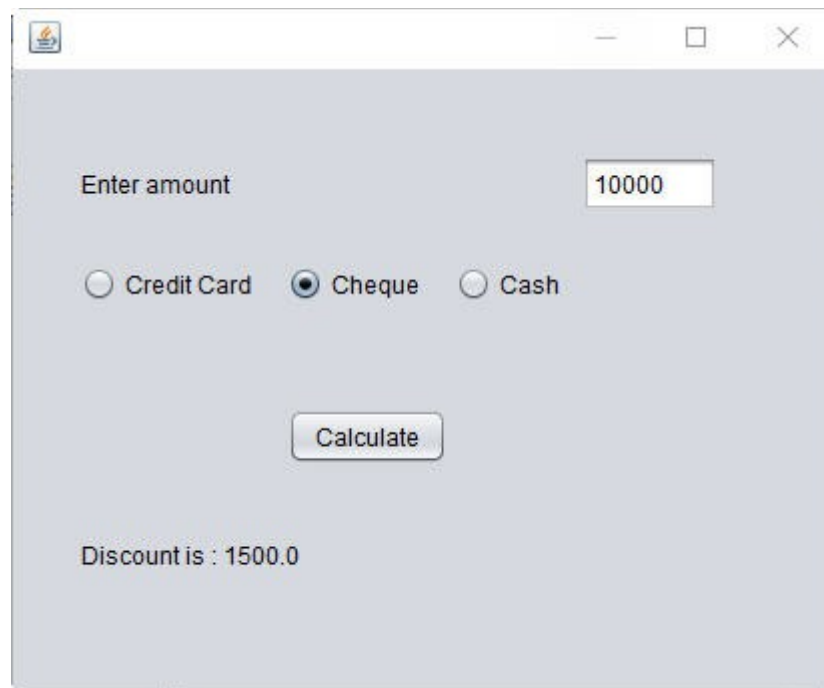
Coding for Calculate Button

```
int fact=1;
int n,i;
n=Integer.parseInt(jTextField1.getText());
for(i=n;i>=1;i--)
{
    fact=fact*i;
}
jLabel2.setText("factorial of number is " + fact);
```

104. Program to demonstrate RadioButtons  
Program includes three radio buttons  
Credit Card, Cheque and Cash

Discount for Credit Card is 20%  
Discount for Cheque is 15%  
Discount for Cash is 10%

Discount is calculated based on amount entered by user in a jTextField



### Coding for Calculate Button

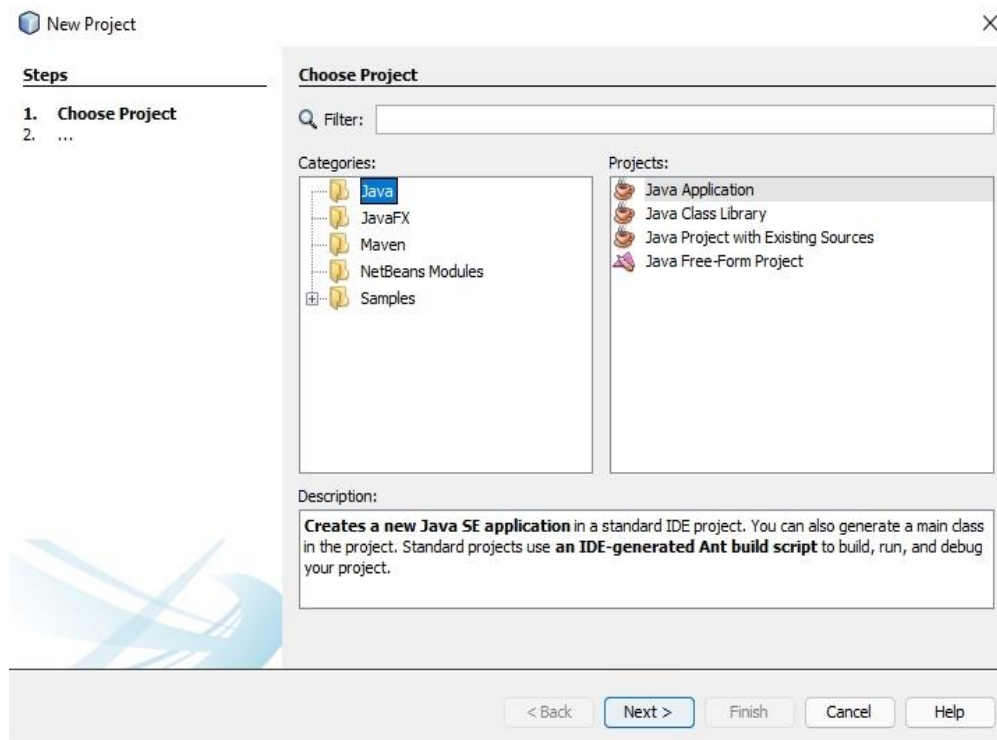
```
int amount;
double discount=0;
amount=Integer.parseInt(jTextField1.getText());
if(jRadioButton1.isSelected()==true)
{
    discount=0.2f*amount;
}
if(jRadioButton2.isSelected()==true)
{
    discount=0.15f*amount;
}
if(jRadioButton3.isSelected()==true)
{
    discount=0.1f*amount;
}
jLabel2.setText("Discount is : " + discount);
```



## Java Swing Course in Netbeans 8.2

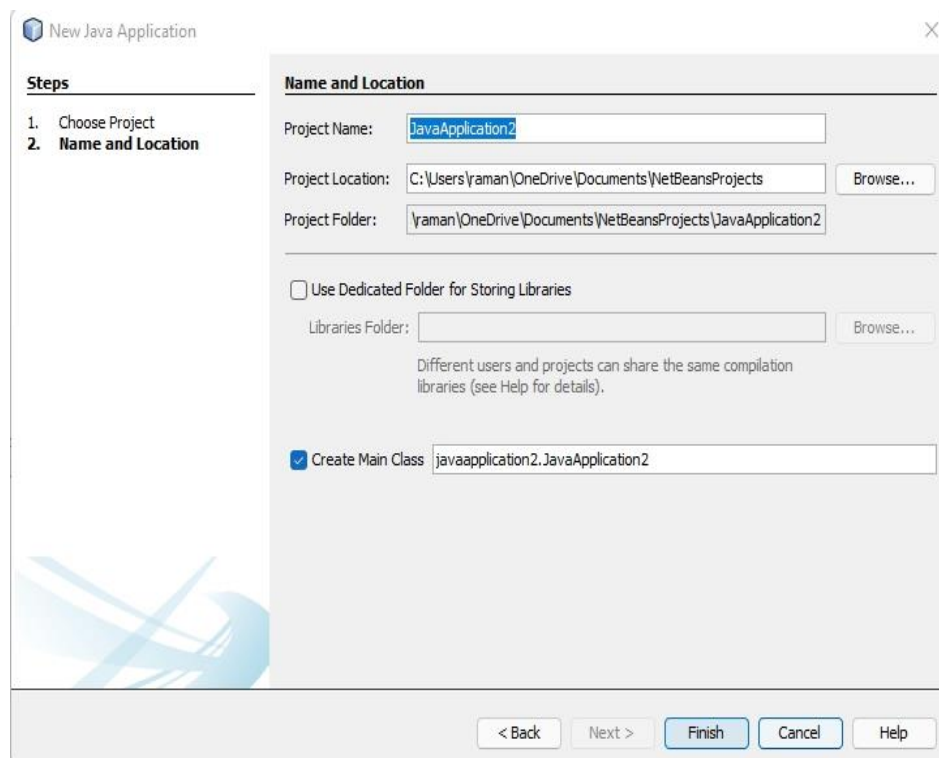
### Steps to create a Java Swing Application in Netbeans

#### 1. Select a new project



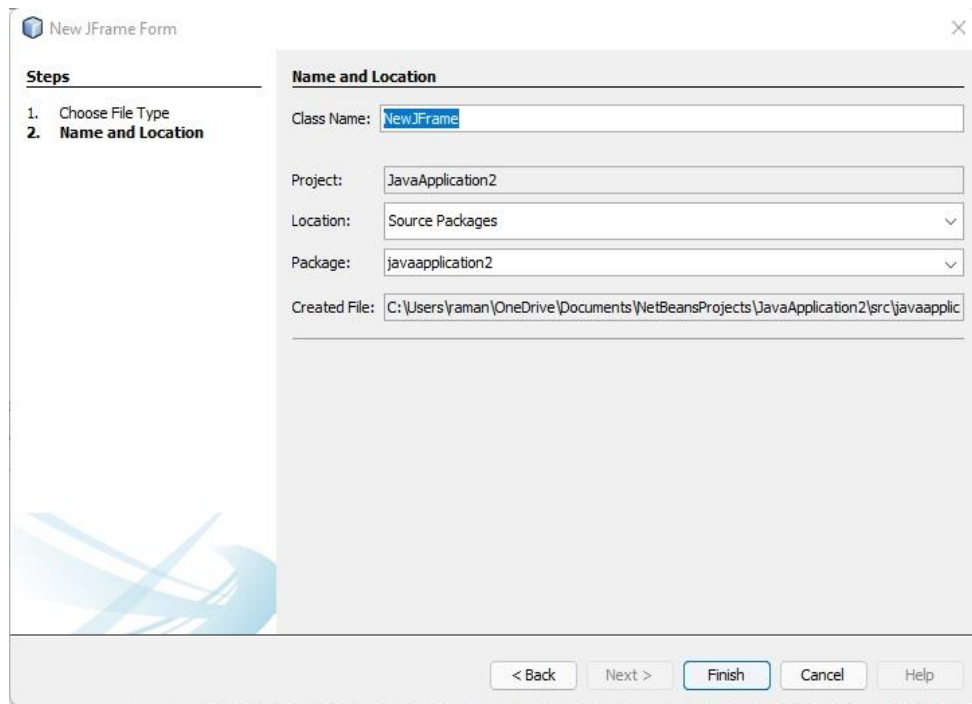
#### Select Java in Categories and Java Application in Projects

The following window will appear



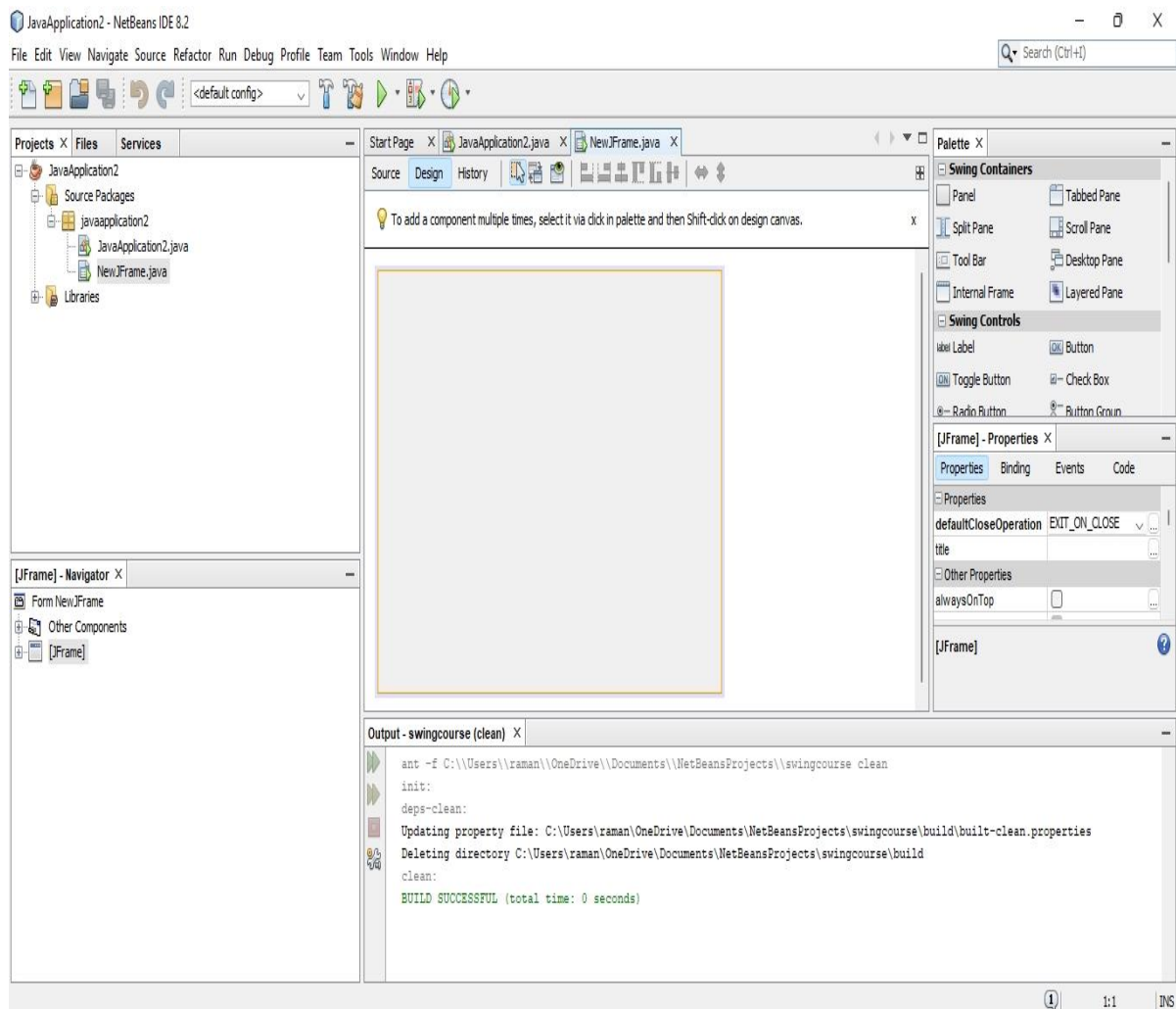
Click Finish

Now Right Click on Icon javaapplication2  
and select New JFrame



Click Finish

Following window will appear



Program to enter name of person and display it in a label named as JLabel1

Go to Design View and select Layout of frame as Absolute Layout

Place a Label, TextField , Button and one more Label on the Frame

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
String name="";
name=jTextField1.getText();
JLabel2.setText("Name you entered is " + name);
// TODO add your handling code here:
}
```

When you click on Button You will get following output

Clicking on a Button will run event jButton1ActionPerformed of the button



Program to add , subtract , multiply, quotient and remainder of two numbers

Click on



above button to run JFrame2

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
int a,b,sum;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
sum=a+b;
jLabel3.setText("Sum of two numbers is " + sum);
// TODO add your handling code here:
}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
int a,b,diff;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
diff=a-b;
jLabel3.setText("Difference of two numbers is " + diff);    // TODO add your handling code here:
}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
int a,b,product;
a=Integer.parseInt(jTextField1.getText());
b=Integer.parseInt(jTextField2.getText());
product=a*b;
jLabel3.setText("Product of two numbers is " + product);    // TODO add your handling code here:
}
```

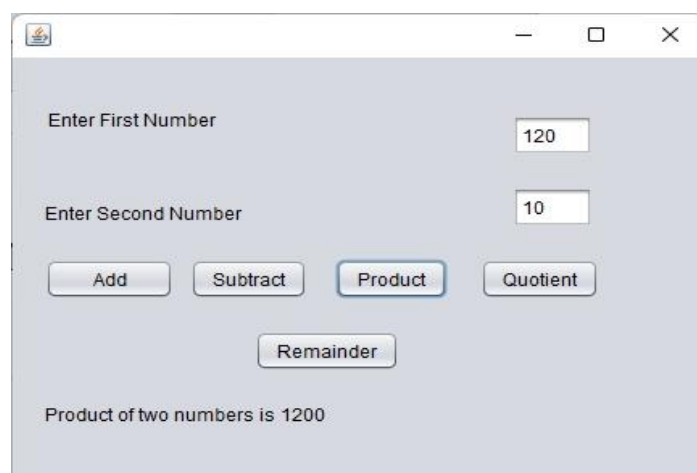
Output Image for jButton4 Action Performed event method is  
Output Image for jButton1 Action Performed event method is



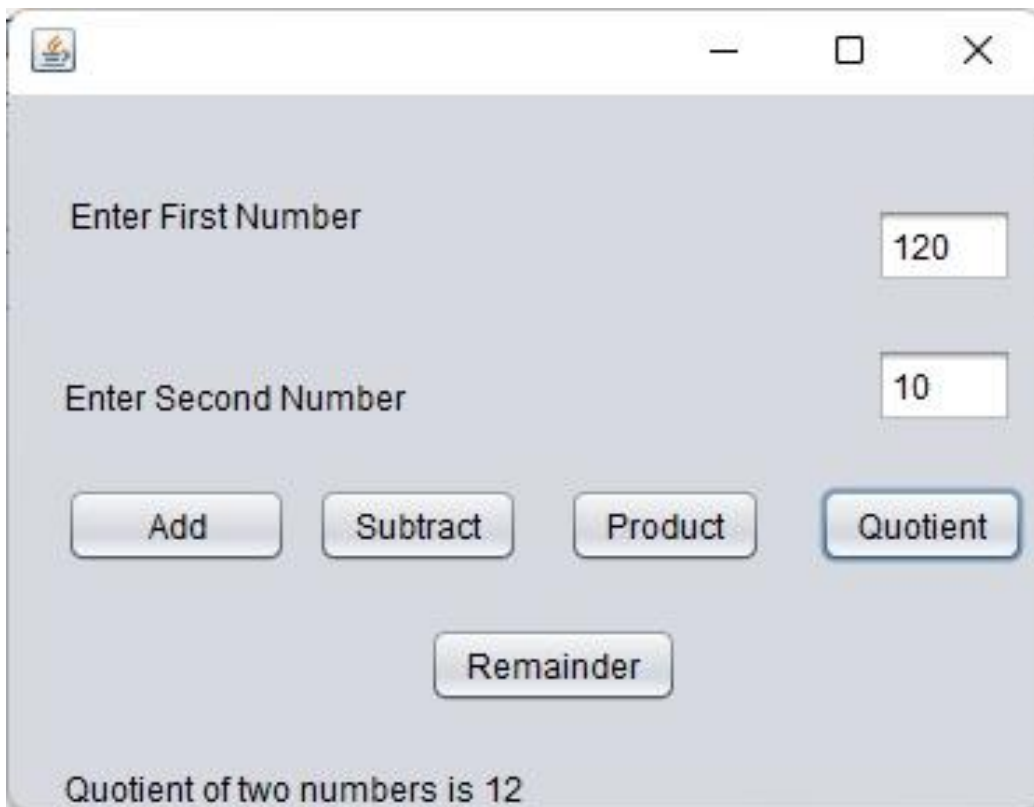
Output Image for jButton2 Action Performed event method is



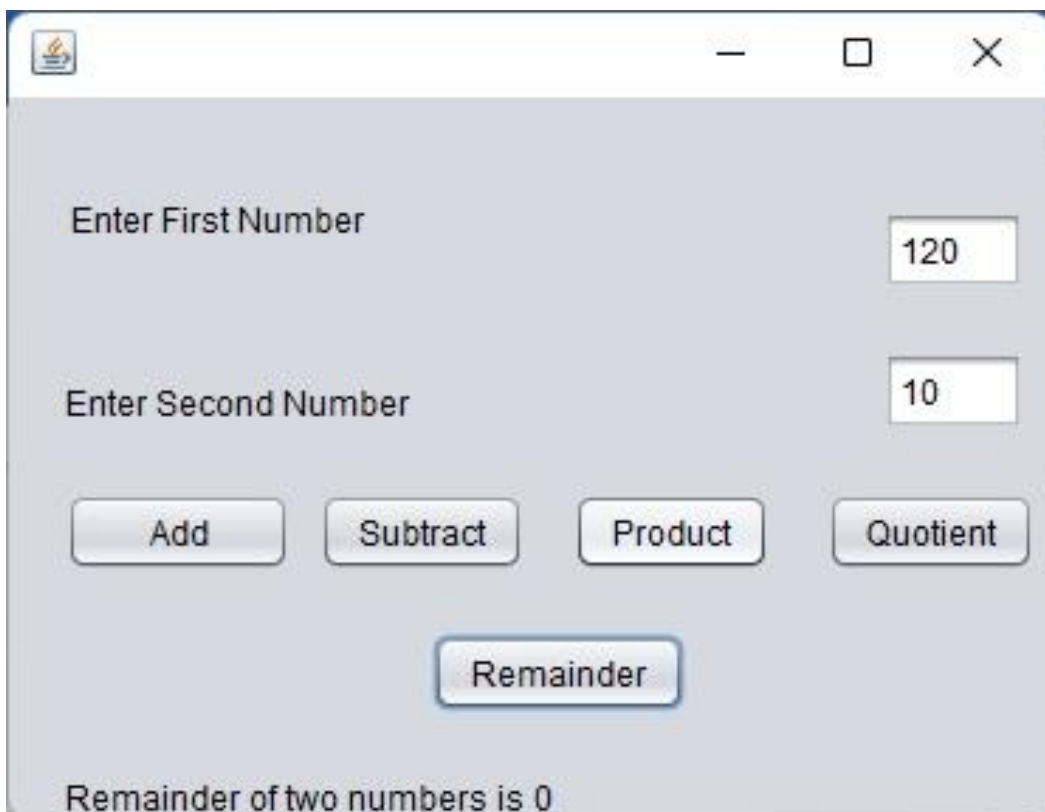
Output Image for jButton3 Action Performed event method is



Output Image for jButton4 Action Performed event method is



Output Image for jButton5 Action Performed event method is



Program to demonstrate ToggleButton in Java Swing

When clicked on ToggleButton ItemEventListener Method is invoked

```
private void jToggleButton1ItemStateChanged(java.awt.event.ItemEvent evt) {  
    int state = evt.getStateChange();  
  
    // if selected print selected in console  
    if (state == evt.SELECTED) {  
        jLabel1.setText("Selected");  
    }  
    else {  
  
        // else print deselected in console  
        jLabel1.setText("Deselected");  
    } // TODO add your handling code here:  
}
```

Output



## Program to demonstrate jCheckBox Button

On Clicking on Button jButton1, if jCheckBox1 is Selected , JLabel1 Text will be set as Cricket CheckBox is Selected. If jCheckBox2 is Selected JLabel2 Text will be set as Cricket CheckBox is not Selected.

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {  
if(jCheckBox1.isSelected()==true)  
{  
    JLabel1.setText("Cricket CheckBox is Selected");  
}  
else  
{  
    JLabel1.setText("Cricket CheckBox is not Selected");  
}  
// TODO add your handling code here:  
}
```

## RadioButtons

Radiobutton is a control to select a single option from multiple options.

To use RadioButton in Java Swing Application, we need ButtonGroup Radio Button

We set the property buttonGroup to buttonGroup1 and we have to add jButtonGroup to Java swing frame. jButton Group is a control but if we place it on a form, buttongroup is not shown on the form. We can also set selected property to true of jRadioButton to set it by default.

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {  
if(jRadioButton1.isSelected()==true)  
{  
    JLabel1.setText("Male Radio Button is Selected");  
}  
else  
{  
    JLabel1.setText("Female Radio Button is Selected");  
}  
// TODO add your handling code here:  
}
```

When radiobutton1 is selected , JLabel will display “Male Radio Button is Selected” and when radiobutton2 is selected and on click jLable1 will display “Female Radio Button is Selected”.





## Combo Box Control

Combo Box is a drop down list box.

Example given below displays the selected item in the Combo Box in JLabel.

Model property of Combo Box is a list of items like a list

- Cricket
- Football
- Table Tennis
- Badminton

Only one option from multiple options can be retrieved from Combo Box on clicking a JButton.

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
jLabel1.setText(jComboBox1.getSelectedItem().toString());    // TODO add your handling code
here:
}
```

Output

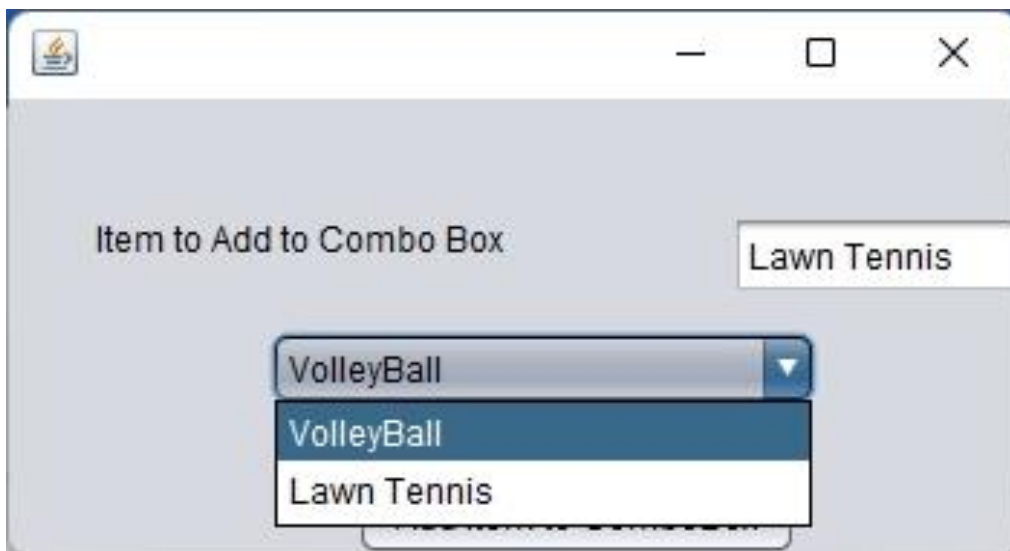
```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
jLabel1.setText(jComboBox1.getSelectedItem().toString());    // TODO add your handling code
here:
}
```

Following example is to add an item to Combo Box

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
jComboBox1.addItem(jTextField1.getText());    // TODO add your handling code here:
}
```



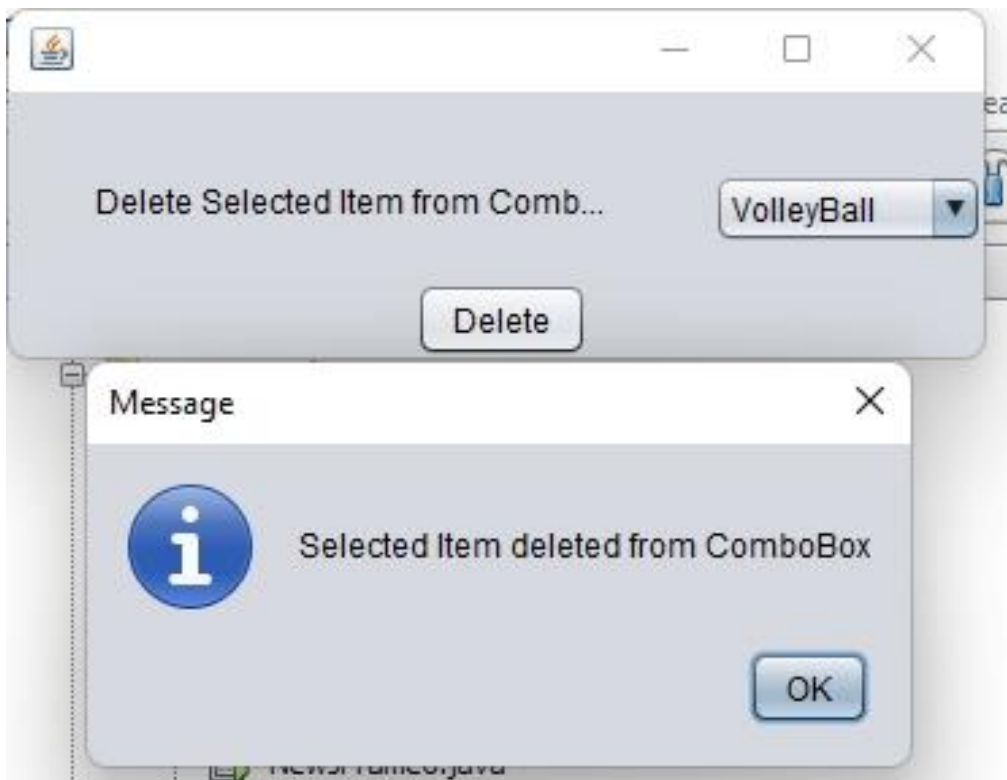
Following example is to show records in a Combo Box



To delete a item from combo box we use object of class DefaultComboBoxModel.

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
DefaultComboBoxModel model = (DefaultComboBoxModel) jComboBox1.getModel();
model.removeElementAt(jComboBox1.getSelectedIndex());
JOptionPane.showMessageDialog(this,"Selected Item deleted from ComboBox");
// TODO add your handling code here:
}
```

We have to import two classes javax swing package  
import javax.swing.DefaultComboBoxModel;  
import javax.swing.JOptionPane;



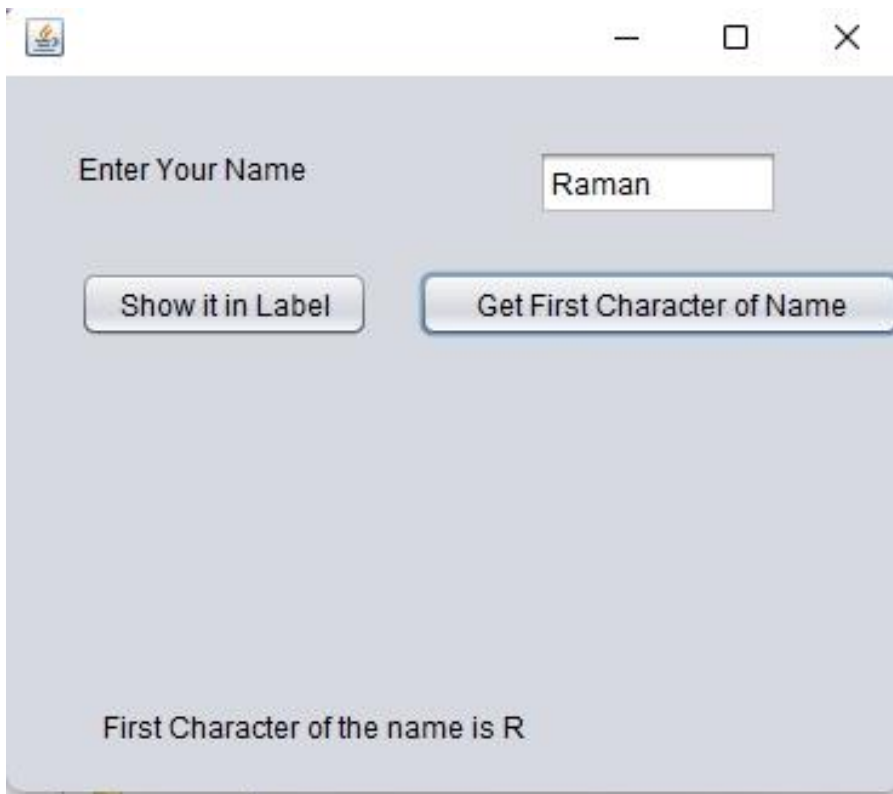
## jTextField Class

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
String name="";
name=jTextField1.getText();
jLabel1.setText("Name You Entered is " + name);
// TODO add your handling code here:
}
```

Following code gives First Character of name in a JLabel Control

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
String name="";
char ch;
name=jTextField1.getText();
ch=name.charAt(0);
jLabel2.setText("First Character of the name is " + ch);    // TODO add your handling code here:
}
```

## Output



We use `charAt()` of `String` class to get first alphabet or character of `String` entered in `TextField`.

Following code is to reverse a string entered in a `TextField`

We have used `StringBuilder` class to reverse a string and output will be shown in `Label2`.

To Set Font Size of the String in `TextField`

```
private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
Font font1 = new Font("SansSerif", Font.BOLD, 20);
jTextField1.setFont(font1);    // TODO add your handling code here:
}
```

We have used a class `Font` to a new Font Size to the String in `TextField1`.

In the above example constructor of class `Font` takes three Parameters

1. Font Name
2. Font Type like `BOLD`, `ITALIC`
3. Font Size which is taken as 20.

```
private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
Font font1 = new Font("SansSerif", Font.ITALIC, 20);
jTextField1.setFont(font1);    // TODO add your handling code here:
}
```

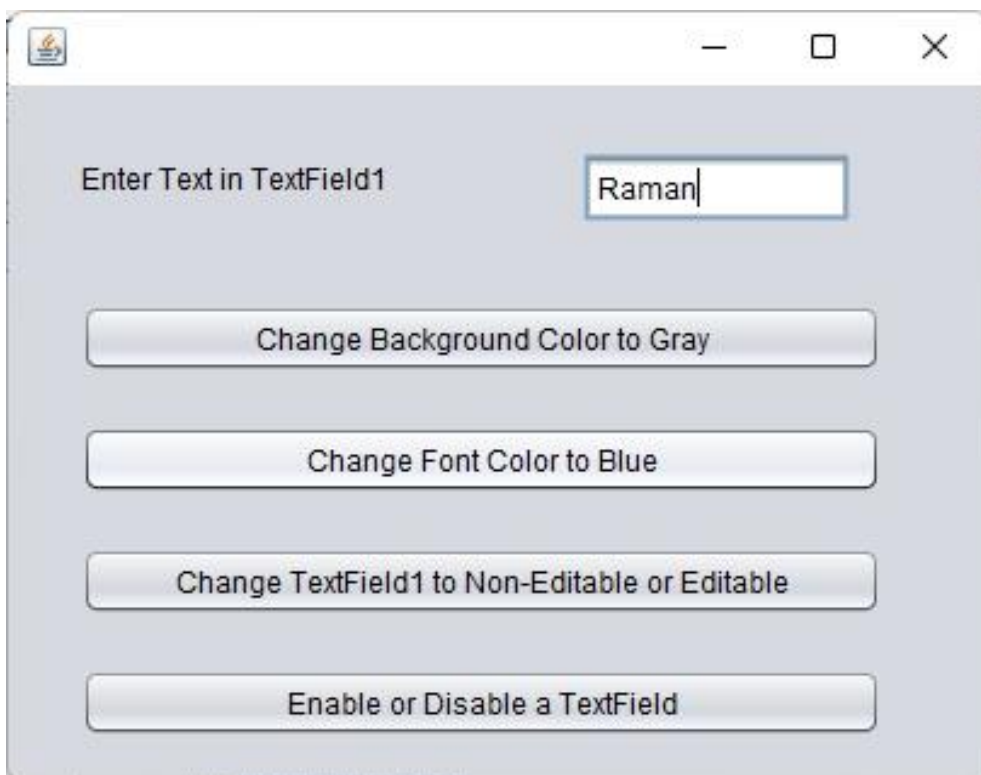
Change Background Color to GRAY.

We have used Class `Color` class to set color of textfield to Gray

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
Color color = Color.GRAY;
jTextField1.setBackground(color);    // TODO add your handling code here:
}
```

## Change Foreground Color to BLUE

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {  
    Color color = Color.BLUE;  
    jTextField1.setForeground(color);    // TODO add your handling code here:  
}  
  
private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {  
    if(jTextField1.isEditable()==true)  
    {  
        jTextField1.setEditable(false);  
    }  
    else  
    {  
        jTextField1.setEditable(true);  
    } // TODO add your handling code here:  
}  
  
private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {  
    if(jTextField1.isEnabled()==true)  
    {  
        jTextField1.setEnabled(false);  
    }  
    else  
    {  
        jTextField1.setEnabled(true);  
    }  
    // TODO add your handling code here:  
}
```



Hide or show a JTextField

Or how to make JTextField as Visible or Invisible

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {  
if(jTextField1.isVisible()==true)  
{  
    jTextField1.setVisible(false);  
}  
else  
{  
    jTextField1.setVisible(true);  
} // TODO add your handling code here:  
}
```



Set Tool Tip Text

What is a Tool Tip Text.

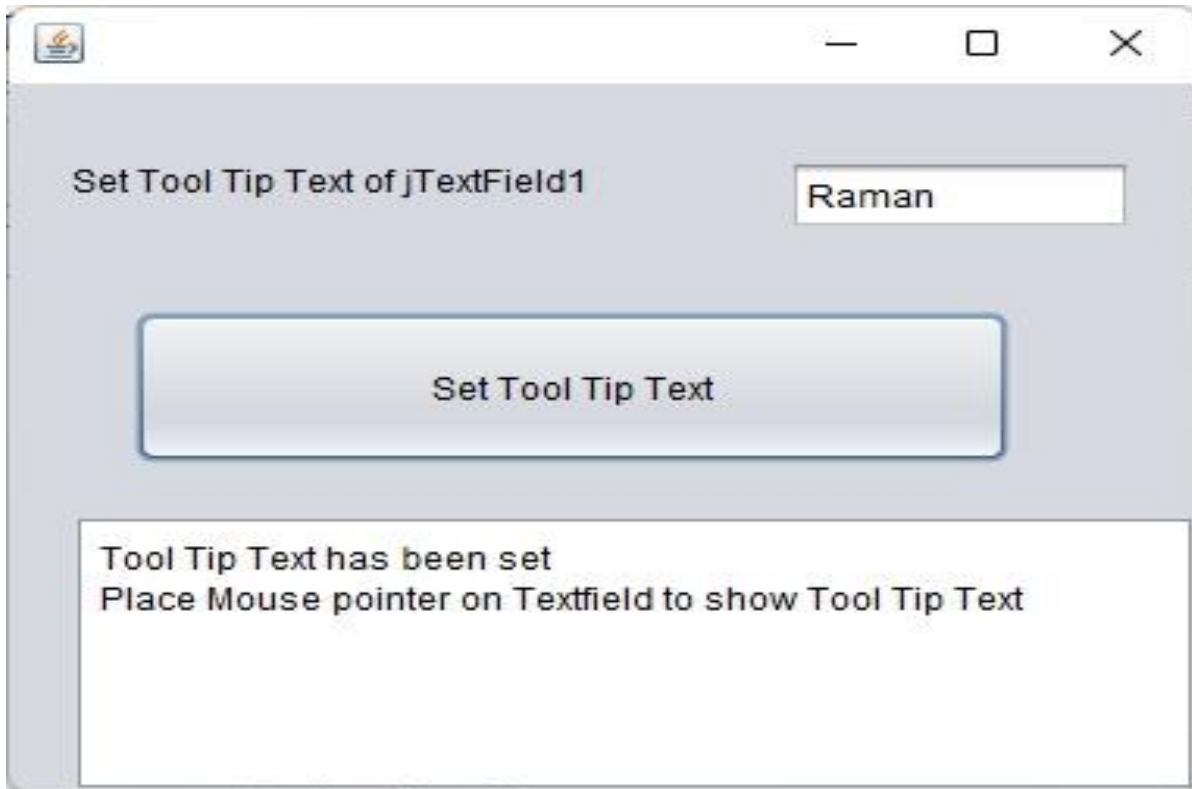
Tool Tip Text is Text which is shown when place a mouse pointer on the JTextField

```

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
jTextField1.setToolTipText("This is JTextField's ToolTip Text");
jTextArea1.setText("Tool Tip Text has been set \nPlace Mouse pointer on Textfield to show Tool
Tip Text");// TODO add your handling code here:
}

```

Output



### jList Control – ListBox Control

DefaultListModel model;  
(Add the above statement constructor)

```

public NewJFrame11() { //This is a constructor
    initComponents();
    model = new DefaultListModel(); // creating instance of class DefaultListModel
}

```

Code to add Element to jList1

```

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
String a="";
a=jTextField1.getText();
model.addElement(a);
jList1.setModel(model);

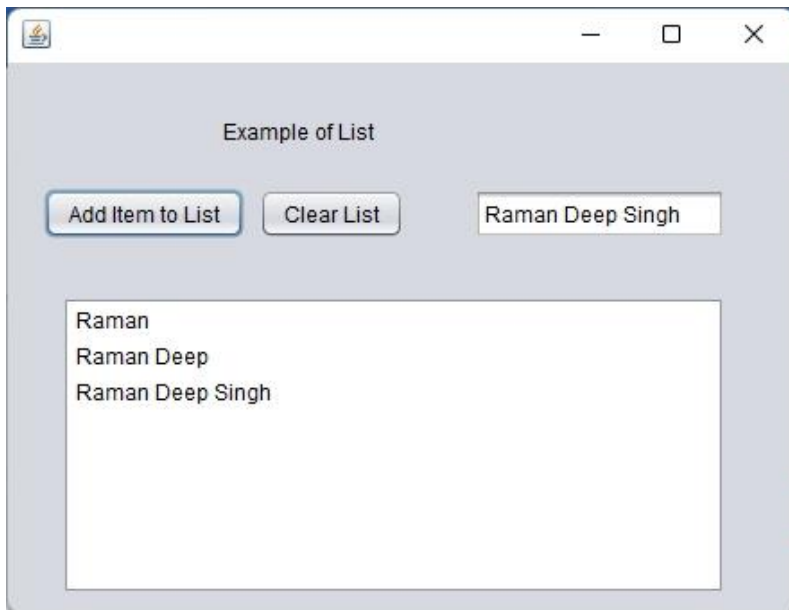
// TODO add your handling code here:
}

```

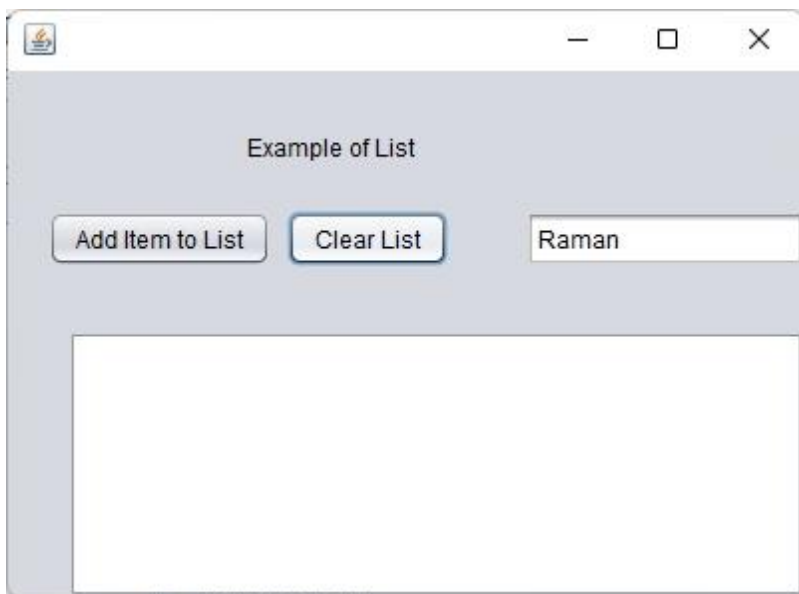
Code to clear the List

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
model.clear();
jList1.setModel(model);// TODO add your handling code here:
}
```

### Output of Add Element



### Output of Clear List



There is a property of JList Control that is `selectionMode` which means that whether we can select a single item of list or multiple items in List

If `selectionMode` is set as `SINGLE`, only a single item can be selected. If `selectionMode` is set to `MULTIPLE_INTERVAL`, multiple items can be selected in the list.

```
private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
String a="";
ArrayList arr;
```

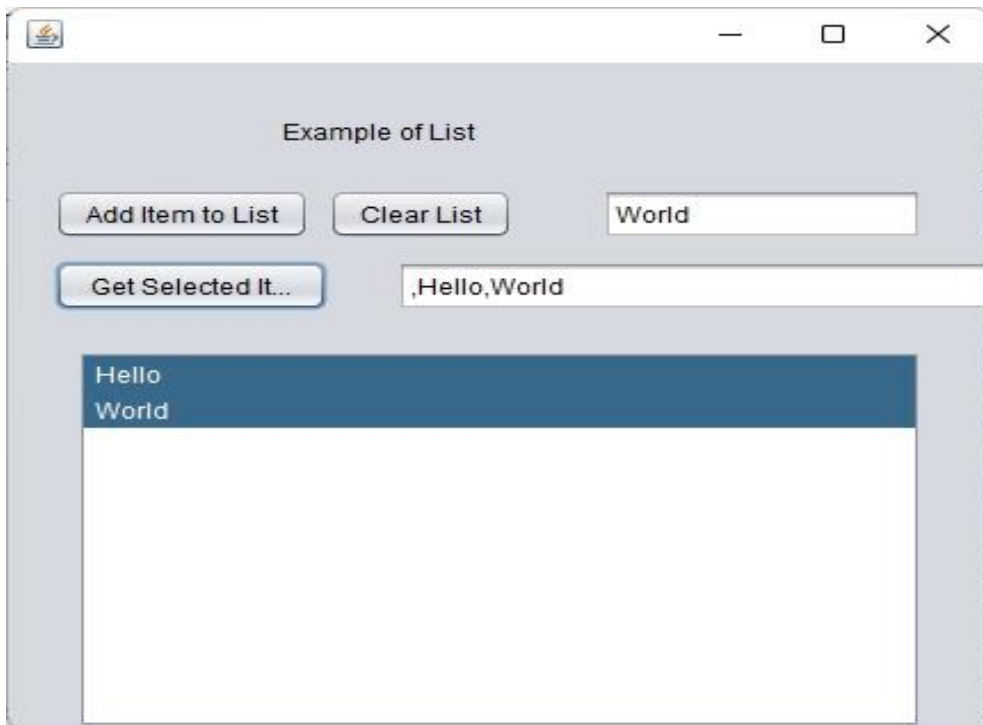


```

jTextField2.setText("");
arr=(ArrayList)jList1.getSelectedValuesList();
Iterator itr=arr.iterator();
while(itr.hasNext())
{
    jTextField2.setText(jTextField2.getText() + "," + itr.next());
}

// TODO add your handling code here:
}

```



Create a PDF File from TextArea

```

try
{
    Document document = new Document(new Rectangle(PageSize.A4));

    PdfWriter writer = PdfWriter.getInstance(document, new
FileOutputStream("c:\\temp\\pdffile1.pdf"));
    document.open();
        document.add(new Paragraph(jTextField1.getText()));
    document.close();
}
catch(Exception e)
{
    JOptionPane.showMessageDialog(this,e.toString());
}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
String a="";
a=jTextField1.getText();
jTextArea1.append(a);
}

```

```

}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
jTextArea1.setText("");    // TODO add your handling code here:
}

```

Import packages

```

import com.itextpdf.text.Document;
import com.itextpdf.text.DocumentException;
import com.itextpdf.text.PageSize;
import com.itextpdf.text.Paragraph;
import com.itextpdf.text.Rectangle;
import com.itextpdf.text.pdf.Barcode128;
import com.itextpdf.text.pdf.PdfWriter;
import java.io.FileOutputStream;

```

