




## LAS 9

write a program that creates user interface to perform integer division. The user enters 2 numbers in the text field and the result is displayed by clicking on  division button.

The exceptions <sup>are</sup> generated when the second number is 0 and when the text field is empty.

Make a report on following

(i) JFrame, set size, set layout, set default JtextField, JLabel, add bar, add ActionListener, set text.

```
→ import javax.swing.*;  
import java.awt.*;  
import java.awt.event.*;
```

```
class UserInterface {  
    UserInterface() {
```

```
        JFrame jfrm = new JFrame ("Divisor App");
```

```
        jfrm.setSize(275, 150);
```

```
        jfrm.setLayout(new FlowLayout());
```

```
        jfrm.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
```

```
        JLabel jlab = new JLabel ("Enter the divisor and  
dividend.");
```

```
        JTextField ajtf = new JTextField (8);
```

```
        JTextField bjtd = new JTextField (8);
```

```
        JButton button = new JButton ("Calculate")
```

```
JLabel err = new JLabel();
JLabel alab = new JLabel();
JLabel blab = new JLabel();
JLabel ansLab = new JLabel();
```

```
jtm.add(err);
jtm.add(jlab);
jtm.add(aJt);
jtm.add(bJt);
jtm.add(button);
jtm.add(alab);
jtm.add(blab);
jtm.add(ansLab);
```

```
ActionListener calculateListener = new ActionListener() {
    public void actionPerformed(ActionEvent evt) {
        try {
            int a = Integer.parseInt(aJt.getText());
            int b = Integer.parseInt(bJt.getText());
            if (b == 0) {
                throw new ArithmeticException();
            }

```

```
int ans = a / b;
```

```
alab.setText("In A = " + a);
blab.setText("In B = " + b);
ansLab.setText("In Ans = " + ans);
err.setText("");
```

```
}
```

```
catch (NumberFormatException e) {
```

```
displayErrorMessage("Enter only Integer!");
```

```
}
```



catch (ArithmeticException e) {

display ErrorMessage ("s should be

4

private void display ErrorMessage (String Message) {

alab.setText("");

blab.setText("");

anslab.setText("");

err.setText (message);

4

4;

button.addActionListener (calculateListener);

jfrm.setVisible (true);

4

public static void main (String[] args) {

SwingUtilities.invokeLater (new Runnable() {

public void run() {

new UtestInterface();

4

4);

4

4

→ output

(i)

Divisor App		-	<input type="checkbox"/>	X
Enter the divisor and dividend				
<input type="text" value="10"/>	<input type="text" value="5"/>			
<input type="button" value="Calculate"/>	A=10 S=5 Ans=2			

(ii)

Divisor App		-	<input type="checkbox"/>	X
S should be non zero!				
Enter the divisor and dividend:				
<input type="text" value="10"/>	<input type="text" value="0"/>			
<input type="button" value="Calculate"/>				

(iii)

Divisor App		-	<input type="checkbox"/>	X
Enter only Integers!				
Enter the dividend and divisor				
<input type="text"/>	<input type="text"/>			
<input type="button" value="Calculate"/>				

*See the error*