

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

```
class UserInterface extends UserInterface {  
    // create JFrame container  
    JFrame jfrm = new JFrame ("Divide App");  
    jfrm.setSize (275, 150);  
    jfrm.setLayout (new FlowLayout());  
    // to terminate on close jfrm.setDefaultCloseOperation (JFrame.EXIT_ON_CLOSE);
```

// text label

```
JLabel jlab = new JLabel ("Enter the divisor of  
dividend: ");
```

// add text field for both numbers

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

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

// calc button

```
JButton button = new JButton ("calculate");
```

// label

 ~~JLabel eror = new JLabel ();~~ ~~JLabel alab = new JLabel ();~~ ~~JLabel blab = new JLabel ();~~ ~~JLabel anslab = new JLabel ();~~

// add in order :)

jfrm.add (err); // to display error message.
jfrm.add (jlab);

```
jfrm.add(button);  
jfrm.add(alab);  
jfrm.add(blab);  
jfrm.add(anslab);
```

Action-Listener calculateListener = new Action-
Listener() {

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

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

```
        alab.setText("\nA = " + a);
```

```
        blab.setText("\nB = " + b);
```

```
        anslab.setText("\nAns = " + ans);
```

```
        err.setText(""); // Clear any previous error  
        message.
```

```
}
```

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

```
        displayErrorMessage("Enter Only Integers!");
```

```
    catch (ArithmetricException e) {
```

```
        displayErrorMessage("B should be non-  
        zero.");
```

```
5.
```

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```
private void displayErrorMessage (String message) {
    alab.setText ("");
    blab.setText ("");
    anslab.setText ("");
    err.setText (message);
}

button.addActionListener (calculationListener);
// display frame
jfrm.setVisible (true);

public static void main (String args []) {
    // create frame on event dispatching thread
    SwingUtilities.invokeLater (new Runnable () {
        public void run () {
            new UserInterface ();
        }
    });
}
```

Output:

Enter the divisor and dividend :

6

3

Calculate

A=6

B=3

Ans = 2

Some definitions

- ① JFrame \Rightarrow It is an essential component of Java Swing. JFrame is a class that allows us to create and manage a top-level window in a Java Application
- ② setSize \Rightarrow Sets the size of this Dimension object to the specified width & height
- ③ setLayout \Rightarrow allows you to set the layout of the container often a JPanel, to say flowLayout, BorderLayout, GridLayout or whatever layout desired
- ④ set default close operation \Rightarrow method provided by java swing
- ⑤ JLabel \Rightarrow is a built in Java Swing class that lets you display information on a JFrame
- ⑥ JTextField \Rightarrow a lightweight component that allows the editing of a single of text
- ⑦ add ActionListener \Rightarrow an interface in java.awt.event package
- ⑧ setText \Rightarrow substitutes the character SText for the text in the text field

- ④ add Frame: → need to add a new frame inside
the existing one

~~new frame~~
new frame