

program - 9

Write a pgm that creates a user interface to perform integer divisions. The user enters two nos. in the text fields, Num1 and Num2. The division of Num1 & Num2 is displayed in the Result field when the Divide button is clicked. If Num1 or Num2 were not an integer, the pgm would show an Arithmetic Exception. Display the exception in a message dialogue box.

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

```
class SwingDemo {
```

```
SwingDemo() {
```

```
JFrame jfrm = new JFrame("Divider App");  
jfrm.setSize(275, 150);  
jfrm.setLayout(new FlowLayout());  
jfrm.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
```

```
JLabel jlab = new JLabel("Enter the divider and dividend:");
```

```
JTextField jtf = new JTextField(8);  
JTextField jtf2 = new JTextField(8);
```

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

JLabel err = new JLabel();
JLabel alab = new JLabel();
JLabel blab = new JLabel();
JLabel anslab = new JLabel();

jfrm.add(err);
jfrm.add(jlab);
jfrm.add(ajtf);
jfrm.add(bjtf);
jfrm.add(button);
jfrm.add(alab);
jfrm.add(blab);
jfrm.add(anslab);

ActionListener1 = new ActionListener() {
public void actionPerformed(ActionEvent evt) {
System.out.println("Action event from a Text field");
}};

ajtf.addActionListener1();
bjtf.addActionListener1();

button.addActionListener(new ActionListener() {
public void actionPerformed(ActionEvent evt) {
try {
int a = Integer.parseInt(ajtf.getText());
int b = Integer.parseInt(bjtf.getText());
int ans = a/b;
}};

alab.setText("In A = " + a);
alab.setText("In B = " + b);

anslab.setText("In Ans = " + ans);

}

catch (NumberFormatException e) {

alab.setText("0");

blab.setText("");

anslab.setText("");

err.setText("Enter only integers!");

}

catch (ArithmeticException e) {

alab.setText("0");

blab.setText("");

anslab.setText("");

err.setText("B should be non zero!");

}

{

{}

{}

ifrm.setVisible(true);

}

public static void main (String args []) {

SwingUtilities.invokeLater(new Runnable () {

public void run () {

new SwingDemo().

}

Output -

Enter the divisor and dividend : 10 5

calculate

$$A = 10 \quad B = 5 \quad \text{Ans} = 2$$

Algorithm -

Step 1 : import swing and Awt classes

Step 2 : Create a class named SwingDemo and a constructor SwingDemo

Step 3 : create JFrame named jForm and set layout manager FlowLayout and set default close operation

Step 4 : create JLabel named jLabel with text Enter the divisor & dividend and create two JTextField named jTextField1 & jTextField2 for entering numbers, a button with label calculate.

+ an additional label errMsg, jLabel1, jLabel2