

9)Write a program that creates a user interface to perform integer divisions. The user enters two numbers in the text fields, Num1 and Num2. The division of Num1 and Num2 is displayed in the Result field when the Divide button is clicked. If Num1 or Num2 were not an integer, the program would throw a NumberFormatException. If Num2 were Zero, the program would throw an Arithmetic Exception Display the exception in a message dialog box.

```
import javax.swing.*.*;
```

```
import java.awt.*.*;
```

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

```
class SwingDemo {
```

```
    SwingDemo() {
```

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

```
        jfrm.setSize(300, 250);
```

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

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

```
        JLabel nameLabel = new JLabel("Name: Aarusha GP, USN: 1BM23CS005"); // Display name and USN
```

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

```
        JTextField ajtf = new JTextField(8); // Input field for the dividend
```

```
        JTextField bjtf = new JTextField(8); // Input field for the divisor
```

```
        JButton button = new JButton("Calculate"); // Button to perform the division
```

```
        JLabel err = new JLabel(); // Label to display errors
```

```
        JLabel alab = new JLabel(); // Label to display the first input (dividend)
```

```
        JLabel blab = new JLabel(); // Label to display the second input (divisor)
```

```
        JLabel anslab = new JLabel(); // Label to display the result
```

```
        jfrm.add(nameLabel); // Display name and USN once
```

```
        jfrm.add(jlab);
```

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

```
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("A = " + a);  
            blab.setText("B = " + b);  
            anslab.setText("Result: " + ans);  
  
            err.setText("");  
        } catch (NumberFormatException e) {  
            // Handle non-integer input  
            alab.setText("");  
            blab.setText("");  
            anslab.setText("");  
            err.setText("Error: Please enter valid integers!");  
        } catch (ArithmeticException e) {  
            alab.setText("");  
            blab.setText("");  
            anslab.setText("");  
            err.setText("Error: B should be NON zero!");  
        }  
    }  
}
```

```

    }

});

jfrm.setVisible(true);
}

public static void main(String args[]) {

    SwingUtilities.invokeLater(new Runnable() {
        public void run() {
            new SwingDemo();
        }
    });
}
}

```

OUTPUT:

Name: Aarusha GP, USN: 1BM23CS005 Enter the divisor and dividend:		<input type="text" value="22"/>	<input type="text" value="11"/>	<input type="button" value="Calculate"/>	A = 22 B = 11 Result: 2
Name: Aarusha GP, USN: 1BM23CS005 Enter the divisor and dividend:		<input type="text" value="ABC"/>	<input type="text" value="5"/>	<input type="button" value="Calculate"/>	Error: Please enter valid integers!
Name: Aarusha GP, USN: 1BM23CS005 Enter the divisor and dividend:		<input type="text" value="10"/>	<input type="text" value="0"/>	<input type="button" value="Calculate"/>	Error: B should be NON zero!