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 java.awt.event.*;
import java.awt.*;
import javax.swing.*;
public class ExceptionDemo extends JFrame implements ActionListener {
   private JTextField t1, t2, t3;
   private JLabel l1, l2;
   private JButton b1, b2;
   public ExceptionDemo() {
      setLayout(new FlowLayout());
      l1 = new JLabel("Num1 :");
      add(l1);
      t1 = new JTextField(5);
      add(t1);
      l2 = new JLabel("Num2 :");
      add(l2);
      t2 = new JTextField(5);
      add(t2);
      t3 = new JTextField(5);
      t3.setEditable(false);
      add(t3);
      b1 = new JButton("Divide");
      add(b1);
      b1.addActionListener(this);
      b2 = new JButton("Clear");
      add(b2);
      b2.addActionListener(this);
```

```
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setSize(300, 150); // Set an appropriate size
        setVisible(true);    }
    public void actionPerformed(ActionEvent act) {
        String str = act.getActionCommand();
        if (str.equals("Divide")) {
            try {
                int num1 = Integer.parseInt(t1.getText());
                int num2 = Integer.parseInt(t2.getText());
                int num3 = num1 / num2;
                t3.setText("" + num3);
            } catch (ArithmeticException e) {
                JOptionPane.showMessageDialog(this, "ArithmeticException: Cannot divide by zero!");
            } catch (NumberFormatException e) {
                JOptionPane.showMessageDialog(this, "NumberFormatException: Please enter valid
integers for Num1 and Num2."  }
        } else {
            t1.setText("");
            t2.setText("");
            t3.setText("");  } }

    public static void main(String[] args) {
        SwingUtilities.invokeLater(new Runnable() {
            public void run() {
                new ExceptionDemo();
            } });}}
```

OUTPUT: