Open Ended Exercise - 1

Q] Write a program that creates a user interface
to perform integer divisions. The user enters two
numbers in the text fields, Num1 & 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 program
would throw a NumberFormatException. if Num2 were
zero, the program would throw an Arithmetic
Exception Display the exception in a message
dialog box.

→
```java
import java.swing.*;
import java.awt.*;
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public class IntegerDivisionApp {
    public static void main(String xx[]) {
        Jframe frame = new Jframe ("Integer Division");
        frame.setDefaultCloseOperation(
            Jframe.EXIT_ON_CLOSE);
        frame.setSize(400,200);
        frame.setLayout(new GridLayout(4,2,10,10));

        JLabel labelNum1 = new Jlabel("Num1:");
        JTextField textNum1 = new JTextField();
        JLabel labelNum2 = new Jlabel("Num2:");
        JTextField textNum2 = new JTextField();
        JLabel labelResult = new Jlabel("Result:");
        JTextField textResult = new JTextField();
        textResult.setEditable(false);
        JButton divideButton = new JButton("Divide");
```

```java
frame.add (labelNum1);
frame.add (textNum1);
frame.add (labelNum2);
frame.add (textNum2);
frame.add (labelResult);
frame.add (textResult);
frame.add (new JLabel());
frame.add (divideButton);

divideButton.addActionListener (new ActionListener()
{
        public void actionPerformed (ActionEvent e) {
            try {
            int num1 = Integer.parseInt (textNum1.getText());
            int num2 = Integer.parseInt (textNum2.getText());
            if (num2 == 0) {
                throw new ArithmeticException ("Cannot divide by zero");
            }
            int res = num1 / num2;
            textResult.setText (String.valueOf (result));
            }
            catch (NumberFormatException ex) {
                JOptionPane.showMessageDialog (frame, "Please Enter
                valid Integers for Num1 & Num2.", "Number
                Format Error", JOptionPane.ERROR_MESSAGE);
            } catch (ArithmeticException e) {
                JOptionPane.showMessageDialog (frame, ex.get
                Message(), "Arithmetic Error", JOptionPane.Error
                MESSAGE);
            }
        }
});
frame.setVisible (true);
}
}
```