Lab Program 10 (Week 12)

Q. Write a program that creates a user interface to perform integer division. 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 and 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.awt.*;
import java.awt.event.*;
import javax.swing.*;

public class Division extends Frame implements ActionListener {
TextField n1, n2, res;
Label l1, l2, lres;
Button b;
public Division()
{
    setLayout(new FlowLayout());
    Label l1 = new Label("NUM1", Label.RIGHT);
    Label l2 = new Label("NUM2", Label.RIGHT);
    Label lres = new Label("RESULT", Label.RIGHT);
    n1 = new TextField(12);
    n2 = new TextField(8);
    res = new TextField(10);
```

```java
b = new Button ("DIVIDE");
add (l1);
add (n1);
add (l2);
add (n2);
add (b);
add (lres);
add (res);
b. addActionListener (this);
addWindowListener (new MyWindowAdapter ());
}
public void actionPerformed (ActionEvent ae)
{
    if (ae. getSource () == b)
    {
        try {
            int num1 = Integer. parseInt (n1. getText ())
            int num2 = Integer. parseInt (n2. getText ());
            int num3 = num1 / num2;
            res. setText (String. valueOf (num3));
        }
        catch (NumberFormatException ne)
        {
            JOptionPane. showMessageDialog (this, ne, "ERROR",
                            JOptionPane. ERROR_MESSAGE);
        }
        catch (ArithmeticException a)
        {
            JOptionPane. showMessageDialog (this, a, "ERROR",
                            JOptionPane. ERROR_MESSAGE);
        }
    }
}
```

```java
public static void main (String args [])
{
    Division i = new Division ();
    i. setSize (new Dimension (400, 400));
    i. setTitle ("INTEGER DIVISION OF TWO NUMBERS");
    i. setVisible (true);
}

class MyWindowAdapter extends WindowAdapter {
public void windowClosing (WindowEvent we)
{
    System. exit (0);
}
}
}
```