

Week 12 Program

Lab Program 10

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 `ArithmeticException`. Display the exception in a message dialog box.

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

public class integerdivision extends Frame implements ActionListener{
    TextField n1,n2,res;
    Label ln1,ln2,lres;
    Button b;
    public integerdivision(){
        setLayout(new FlowLayout());
        Label ln1=new Label("NUMBER 1",Label.RIGHT);
        Label ln2=new Label("NUMBER 2",Label.RIGHT);
        Label lres=new Label("RESULT",Label.RIGHT);
        n1=new TextField(12);
        n2=new TextField(8);
        res=new TextField(10);
        b=new Button("DIVIDE");
        add(ln1);
        add(n1);
```

```

        add(ln2);
        add(n2);
        add(b);
        add(lres);
        add(res);
        b.addActionListener(this);
        addWindowListener(new WindowAdapter1());
    }
    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);
            }
        }
    }
    public static void main(String args[])

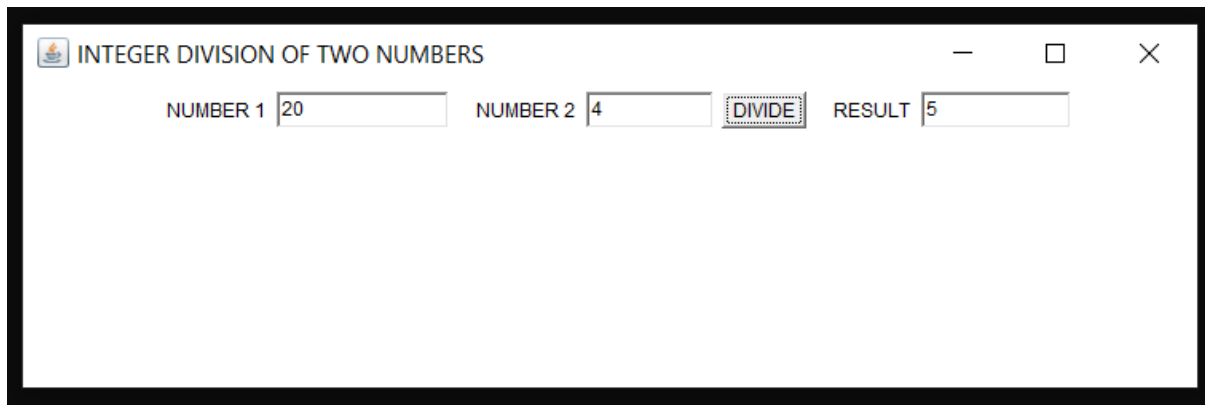
```

```
{  
    integerdivision i=new integerdivision();  
    i.setSize(new Dimension(400,400));  
    i.setTitle("INTEGER DIVISION OF TWO NUMBERS");  
    i.setVisible(true);  
}
```

```
class WindowAdapter1 extends WindowAdapter{  
    public void windowClosing(WindowEvent we)  
    {  
        System.exit(0);  
    }  
}  
}
```

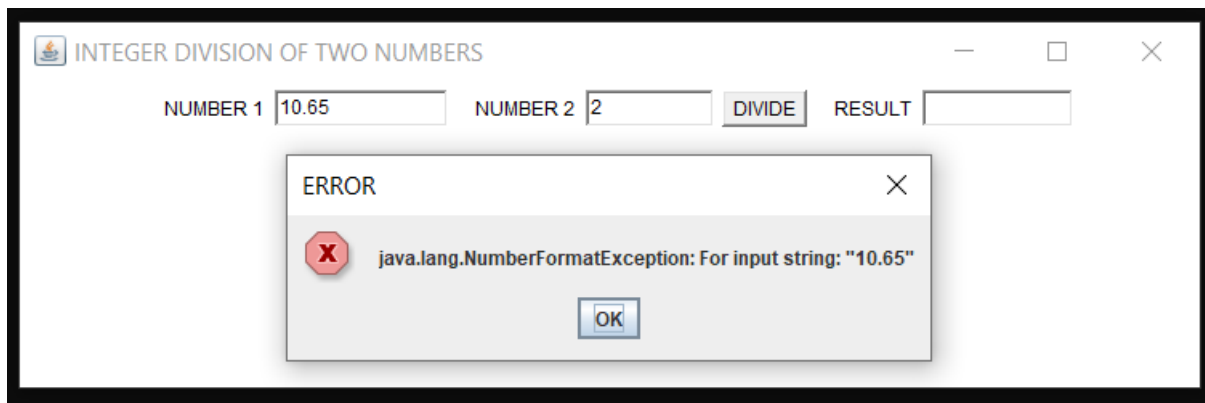
OUTPUT:

```
C:\Users\win10\Documents\Java lab programs>javac integerdivision.java  
C:\Users\win10\Documents\Java lab programs>java integerdivision
```



INTEGER DIVISION OF TWO NUMBERS


NUMBER 1 NUMBER 2 RESULT

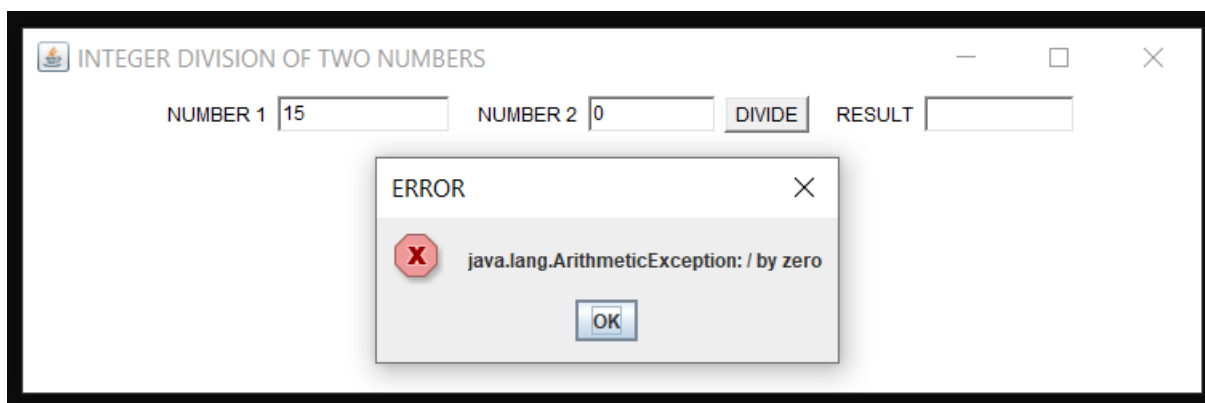


INTEGER DIVISION OF TWO NUMBERS

NUMBER 1 NUMBER 2 RESULT

ERROR


 java.lang.NumberFormatException: For input string: "10.65"



INTEGER DIVISION OF TWO NUMBERS

NUMBER 1 NUMBER 2 RESULT

ERROR

 java.lang.ArithmeticException: / by zero