

Lab 10 WAP that creates a users interface to perform integer Division. The user enters two nos in the text field when 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 are not an integer the program would throw a Number Formatted Exception. If Num2 were zero, the program would throw an Arithmetic Exception Display the exception in a message dialog box.

```
import java.awt.*;
import java.awt.event.*;
public class Division extends Frame
implements ActionListener {
    public class DialogD extends JFrame
    {
        String msg;
        JDialog myDialog;
        public DialogD() {
            myDialog = new JDialog(this, "New
            Dialog Box", msg);
        }
    }
}
```

```
String msg;
TextField num1, num2, res;
Label L1, L2, L3;
Button div;
public Division() {
    setLayout(new FlowLayout());
    L1 = new
    Label("Dividend", Label.RIGHT);
```

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```
L2 = new Label("Divisor", Label.RIGHT);
L3 = new Label("RESET Result", Label.RIGHT);
```

```
num1 = new TextField(10);
```

```
num2 = new TextField(10);
```

```
res = new TextField(10);
```

```
div = new Button("Divide");
```

```
add(L1);
```

```
add(num1);
```

```
add(L2);
```

```
add(num2);
```

```
add(L3);
```

```
add(res);
```

```
add(div);
```

```
div.addActionListener(this);
```

```
addWindowListener(new MyWindowAdaptor());
```

```
}
```

```
public void
```

```
actionPerformed(ActionEvent ae) {
```

```
int num1 = 0; num2 = 0;
```

```
try {
```

```
num1 = Integer.parseInt(this.num1.  
get Text());
```

```
num2 = Integer.parseInt(this.num2.  
get Text());
```

```
double num3 = (double) num1 / num2;  
res.set Text(String.valueOf(num3));  
msg = "Division Successful";
```

```
}  
catch (NumberFormatException)
```

```
{
```


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```

System.out.println(e);
res.set Text (" ");
msg = "NumberFormatException";
JDialog dd = new JDialog(this,
    "Dialog", msg);
dd.setVisible(true);
return;
}

try {
    if (num2 == 0)
        throw new ArithmeticException();
    msg = "Can't be divided by Zero";
}
catch (ArithmeticException e)
{
    System.out.println("Can't be divided
        by Zero" + e);
    res.set Text (" ");
    msg = "Can't be divided by Zero";
    JDialog dd = new JDialog(
        this "Dialog", msg);
    dd.setVisible(true);
    return;
}

public void paint(Graphics g) {
    g.drawString(msg, 80, 100);
}

public static void main(String[] args)
{
    Division appwin = new Division();
    appwin.setSize(new Dimension
        (480, 280));
}

```

```
appwin.set Title ("Division");
appwin.set Visible (true);
```

```
class My Window Adapter extends
Window Adapter {
    public void
    window Closing (Window Event we)
    {
        System.exit (0);
    }
}
```

```
class D Dialog extends Dialog {
    D Dialog (Frame parent, String title,
    String msg)
    {
        super (parent, title, false);
        set Layout (new Flow Layout ());
        set Size (300, 300);
        add (new Label (msg));
        Button b;
        add (b = new Button ("OK"));
        b.add Action Listener ((ae) -> dispose());
        add Window Listener (new Window Adapter
        {});
        public void
        window Closing (Window Event we)
        {
            dispose ();
        }
    }
}
```

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