

20/2/24

10 Lab Program 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 an ArithmeticException. Display the exception in a message dialog box.

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

```
public class DivisionMain extends Frame  
implements ActionListener
```

```
{  
    TextField num1, num2;  
    Button dResult;  
    Label outResult;  
    String out = "";  
    double resultNum;  
    int flag = 0;
```

```
    public DivisionMain()  
{
```

```
        setLayout(new FlowLayout());
```

```
        dResult = new Button("RESULT");
```

```
        Label number1 = new Label("Number  
1:", Label.RIGHT RIGHT);
```

```
Label number2 = new Label("Number  
2:", Label.RIGHT);  
num1 = new TextField(5);  
num2 = new TextField(5);  
outResult = new Label("Result:",  
Label.RIGHT);
```

```
add(number1);  
add(num1);  
add(number2);  
add(num2);  
add(dResult);  
add(outResult);
```

```
num1.addActionListener(this);  
num2.addActionListener(this);  
dResult.addActionListener(this);  
addWindowListener(new Window-  
Adapter()
```

{

```
public void windowClosing(Window-  
Event we)
```

{
}

```
System.exit(0);
```

```
public void actionPerformed(ActionEvent ae)
```

```
{  
int n1, n2;  
try
```

```
if (ae.getSource() == dResult)
```

```
n1=Integer.parseInt(num1.getText());  
n2=Integer.parseInt(num2.getText());
```

```
/*if(n2==0)
```

```
throw new ArithmeticExcep-  
-tions(); */
```

```
out=n1+"..."+n2;
```

```
resultNum=n1/n2;
```

```
out+=String.valueOf(resultNum);
```

```
repaint();
```

```
}; (with) bba
```

```
} ; (using) bba  
catch(NumberFormatException e1)
```

```
; (using) bba  
flag=1;
```

```
out="Number Format Exception";  
① +e1;
```

```
repaint();
```

```
};  
catch(ArithmeticException e2)
```

```
flag=1;
```

```
out="Divide by 0 Exception! "+e2;  
repaint();
```

```
public void paint(Graphics g)  
{
```

```
if(flag==0)
```

```
g.drawString(out,outResult.getX() +  
outResult.getWidth(),outResult.getY())
```

```
+ outResult.getHeight() - 8);  
else  
g.drawString(out, 100, 200);  
flag = 0;
```

```
} }  
public static void main(String[] args)
```

```
DivisionMain dm = new DivisionMain();  
dm.setSize(new Dimension(800, 400));  
dm.setTitle("Division Of Integers");  
dm.setVisible(true);
```

Output

Number 1: | Number 2:
Result 6 41.0 Result 6

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20/1/2024

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