LAB - 10

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Write a program that creates a user interface to perform integer divisons. The user enters two numbers in 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 NumberFormat Exception. If Num2 were zero, the program would throw an Arithmetic Expection Display the exception in message dialog box.

```
import java.awt.BorderLayout ;
import java.awt.Button ;
import java.awt.color ;
import java.awt.Dialog ;
import java.awt.FlowLayout ;
import java.awt.Frame ;
import java.awt.Graphics ;
import java.awt.Insets ;
import java.awt.Label ;
import java.awt.TextField ;
import java.awt.event.ActionEvent ;
import java.awt.event.ActionListener ;
import java.awt.event.TextEvent ;
import java.awt.event.TextListener ;
import java.awt.event.WindowAdapter ;
import java.awt.event.WindowEvent ;

public class Lab10 extends Frame implements ActionListener
    TextField t1, t2 ;
    String msg = " " ;
    Button btn ;
Lab10() {
    Label l1 = new Label ("First Number: ", Label.R
```

```
        t1 = new TextField(10);
Label l2 = new Label("Second Number:", Label.RIGHT);
        t2 = new TextField(10);
    btn = new Button("Submit");
    //Label l = new Label("Updates:");
        l1.setBackground(Color.Yellow);
        l2.setBackground(Color.YELLOW);
    //this.setResizable(false);
        this.add(l1);
        this.add(t1);
        this.add(l2);
        this.add(t2);
// the following command will make sure that input char is
                not visible to the user.
// (it has been added just to demostrate). Can be used
  for passwords.
    //t1.setEchoChar('*');
    //t2.setEchoChar('#');
      this.add(btn, BorderLayout.CENTER);
       this.setVisible(true);
       this.setSize(600, 300);
this.setLayout(new FlowLayout(FlowLayout.CENTER, 20, 10));
    //t1.addActionListener(this);
    btn.addActionListener(this);
  addWindowListener(new myWindow());
    setBackground(Color.YELLOW);
  //System.out.println(BorderLayout.CENTER);
}
    @Override
    public Insets getInsets() {
            return new Insets(50,10,10,20);
    }
```

```
@Override
Public void actionPerformed (ActionEvent e) {
        String st1 = t1.getText();
        String st2 = t2.getText();
    double n1, n2;
        n1 = 0.0;
        n2 = 0.0;
  if (st1.equals("") || st2.equals("")) {
     msg = "You cannot leave the text elements blank
  } else {
     try {
        n1 = Double.parseDouble (st1);
        n2 = Double.parseDouble (st2);
       try {
            double res = n1 / n2;
          msg = "Result of divison :" + res;
       } catch(ArthimeticExpection e1) {
            msg = e1.toString();
       }
   } catch (NumberFormatException e2) {
       msg = "Enter only numbers and not other things"
   }
}
new MyDialog( this, "Result Dialog", false, msg, n1, n2);
}
    public static void main (String[] args) {
        new Lab10();
    }
```

```
class myDialog extends Dialog implements ActionListener {
public myDialog(Frame owner, String title, boolean modal,
                String msg, double n1, double n2)
{
    super(owner, title, modal);
    this.setVisible(true);
    this.setSize(300, 400);
    this.setLayout(new FlowLayout());
  // System.out.println(owner);
  Label l1 = new Label("Updates on the result :");
    // l1.setSize(300, 20);
    this.add(l1);
  this.add(new Label("First Number : "+n1));
  this.add(new Label("Second Number : "+n2));
   this.add(new Label(msg));
  Button b = new Button("Close");
    this.add(b);
    b.addActionListener(this);
this.addWindowListener(new WindowAdapter() {
    public void windowClosing(WindowEvent e) {
      dispose();
  }
});
    @Override
    public void actionPerformed(ActionEvent e){
          dispose();
      }
    }
class myWindow extends WindowAdapter {
    public void windowClosing(WindowEvent e){
          System.exit(0);
    }
```

Output :

Result Dialog

Updates on the result :

First Number : 450.0 Second Number : 30.0

Result of division : 15.0 [Close]