

```

import java.awt.*;
import java.awt.event.*;
class DivisionMain1 extends Frame implements ActionListener{
    TextField num1,num2;
    Button dResult;
    Label outResult;
    String out="";
    double resultNum;
    int flag=0;
    public DivisionMain1(){
        setLayout(new FlowLayout());
        dResult = new Button("Result:");
        Label number1 = new Label("Number 1:",Label.RIGHT);
        Label number2 = new Label("Number 2:",Label.RIGHT);
        num1=new TextField(5);
        num2=new TextField(5);
        outResult = new Label("",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 WindowAdapter(){
            public void windowClosing(WindowEvent e){
                System.exit(0);
            }
        });
    }

    public void actionPerformed(ActionEvent e){
        int n1,n2;

```

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        public void actionPerformed(ActionEvent e){
            int n1,n2;
            try{
                if (e.getSource() == dResult){
                    n1=Integer.parseInt(num1.getText());
                    n2=Integer.parseInt(num2.getText());
                    if(n2==0){
                        throw new ArithmeticException();
                    }
                    out=n1+"/"+n2+" ";
                    resultNum=n1/n2;
                    out+=resultNum;
                }
            }
            catch(NumberFormatException e1){
                flag=1;
                out="Number Format Exception!" +e1;
            }
            catch(ArithmeticException e1){
                flag=1;
                out="Divide by 0 Exception!" +e1;
            }
            outResult.setText(out);
            invalidate();
            validate();
        }
    }

    public class Main{
        public static void main(String args[]){
            DivisionMain1 obj=new DivisionMain1();
            obj.setSize(new Dimension(800,400));
            obj.setTitle("DivisionOfIntegers");
        }
    }

```

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        if (e.getSource() == dResult){
            n1=Integer.parseInt(num1.getText());
            n2=Integer.parseInt(num2.getText());
            if(n2==0){
                throw new ArithmeticException();
            }
            out=n1+"/"+n2+" ";
            resultNum=n1/n2;
            out+=resultNum;
        }
    }
    catch(NumberFormatException e1){
        flag=1;
        out="Number Format Exception!" +e1;
    }
    catch(ArithmeticException e1){
        flag=1;
        out="Divide by 0 Exception!" +e1;
    }
    outResult.setText(out);
    invalidate();
    validate();
}

}

public class Main{
    public static void main(String args[]){
        DivisionMain1 obj=new DivisionMain1();
        obj.setSize(new Dimension(800,400));
        obj.setTitle("DivisionOfIntegers");
        obj.setVisible(true);
    }
}

```

Number 1:

Number 2:

Result:  $20 / 60 = 0.3333333333333333$

culator

Number 1:

Number 2:

Result:

Arithmetic Error: Divide by zero!



## Lab - 9

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WAP that creates a user interface to perform integer divisions. The user enters two numbers in the text fields, Num 1 & Num 2. The division of Num 1 & Num 2 is displayed in the Result field when the divide button is clicked. If Num 1 or Num 2 were not an integer, the program would throw a NumberFormatException. If num 2 were zero, the program would throw an ArithmeticException. Display the exception in a message dialog box.

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

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);
        Label ("Number 2:", Label.RIGHT);
        num1 = new TextField(5);
        num2 = new TextField(5);
        outResult = new Label("", Label.RIGHT);
        add(number1);
        add(num1);
        add(number2);
```



```

add (num2);
add (dResult);
add (outResult);
num1.addActionListener (this);
num2.addActionListener (this);
addWindowListener (new WindowAdapter () {
    public void windowClosing (WindowEvent e) {
        System.exit (0);
    }
});
}

public void actionPerformed (ActionEvent e) {
    int n1, n2;
    try {
        if (e.getSource () == dResult) {
            n1 = Integer.parseInt (num1.getText ());
            n2 = Integer.parseInt (num2.getText ());
            if (n2 == 0) {
                throw new ArithmeticException ();
            }
            out = n1 + "/" + n2 + " ";
            resultNum = n1/n2;
            out += resultNum;
        }
    }
    catch (NumberFormatException e1) {
        flag = 1;
        out = "Number Format Exception!" + e1;
    }
    catch (ArithmeticException e1) {
        flag = 1;
        out = "Divide by 0 Exception!" + e1;
    }
}

```



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```
outResult.setText(out);  
invalidate();  
validate();  
}
```

```
}  
  
public class Main {  
    public static void main (String args []) {  
        DivisionMain1 obj = new DivisionMain1();  
        obj.setSize(new Dimension (800, 400));  
        obj.setTitle ("Division Of Integers");  
        obj.setVisible (true);  
    }  
}
```

o/p: num 1 = 10  
num 2 = 5  
10/5 = 2

num 1 = 10  
num 2 = 0  
Divided by 0 Exception.