

IBM19CS090

## Program 10:

Write a program that creates an user interface to perform integer divisions. The user enters two numbers in the text fields, Num1, 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 integer, the prog would throw a NumberFormatException. If Num2 were zero, the program would throw an ArithmeticException. Display the exceptic in a message dialog box.

Code:

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

public class Division implements ActionListener {
    Frame f = new Frame();
    Label l1 = new Label("First Number");
    Label l2 = new Label("Second Number");
    Label l3 = new Label();
    Label l4 = new Label();
    TextField t1 = new TextField();
    TextField t2 = new TextField();
    Button b1 = new Button("Div");

    Division() {
        l1.setBounds(100, 100, 100, 20);
        l2.setBounds(100, 140, 100, 20);
        l3.setBounds(100, 180, 100, 20);
        l4.setBounds(100, 220, 100, 20);
        t1.setBounds(250, 100, 150, 20);
        t2.setBounds(250, 140, 150, 20);
        b1.setBounds(200, 275, 50, 20);
        f.add(l1);
        f.add(l2);
        f.add(l3);
        f.add(l4);
        f.add(t1);
        f.add(t2);
        f.add(b1);
    }
}
```

```
        b1.addActionListener (this);  
        f.setLayout ( null );  
        f.setVisible (true);  
        f.setSize ( 500, 350);
```

```
    }
```

```
    public void actionPerformed (ActionEvent e) {
```

```
        try {
```

```
            int n1 = Integer.parseInt (t1.getText());
```

```
            int n2 = Integer.parseInt (t2.getText());
```

```
            l3.setText ("Result : " + String.valueOf(n1/n2));
```

```
            l4.setText ("Division Successful!");
```

```
        } catch (Exception ex) {
```

```
            l4.setText (String.valueOf(ex));
```

```
            l3.setText ("Result : Error");
```

```
        }
```

```
    }
```

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

```
        new Division();
```

```
    }
```

```
}
```



```

import java.awt.*;
import java.awt.event.*;
public class Division implements ActionListener{
    Frame f=new Frame();
    Label l1=new Label("First Number");
    Label l2=new Label("Second Number");
    Label l3=new Label();
    Label l4=new Label();
    TextField t1=new TextField();
    TextField t2=new TextField();
    Button b1=new Button("Div");
    Division() {
        l1.setBounds(100,100,100,20);
        l2.setBounds(100,140,100,20);
        l3.setBounds(100,180,100,20);
        l4.setBounds(100,220,300,20);
        t1.setBounds(250,100,150,20);
        t2.setBounds(250,140,150,20);
        b1.setBounds(200,275,50,20);
        f.add(l1);
        f.add(l2);
        f.add(l3);
        f.add(l4);
        f.add(t1);
        f.add(t2);
        f.add(b1);
        b1.addActionListener(this);
        f.setLayout(null);
        f.setVisible(true);
        f.setSize(500,350);
    }
    public void actionPerformed(ActionEvent e){
        try {
            int n1=Integer.parseInt(t1.getText());
            int n2=Integer.parseInt(t2.getText());
            int result=n1/n2;
            l3.setText(String.valueOf(result));
        } catch (Exception ex){
            l3.setText("Error");
        }
    }
}

```



```

l4.setBounds(100,220,300,20);
t1.setBounds(250,100,150,20);
t2.setBounds(250,140,150,20);
b1.setBounds(200,275,50,20);
f.add(l1);
f.add(l2);
f.add(l3);
f.add(l4);
f.add(t1);
f.add(t2);
f.add(b1);
b1.addActionListener(this);
f.setLayout(null);
f.setVisible(true);
f.setSize(500,350);
}
public void actionPerformed(ActionEvent e){
    try {
        int n1=Integer.parseInt(t1.getText());
        int n2=Integer.parseInt(t2.getText());
        l3.setText("Result : "+String.valueOf(n1/n2));
        l4.setText("Division Successful!");
    } catch (Exception ex) {
        l4.setText(String.valueOf(ex));
        l3.setText("Result : Error");
    }
}
public static void main(String args[]){
    new Division();
}
}

```



First Number

50

Second Number

2

Result 25

Division Successful!

Div



First Number

12

Second Number

aa

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

OK



First Number

50

Second Number

0

Result 25

java.lang.ArithmeticException / by zero

DN



```

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

public class ButtonDemo extends Frame implements ActionListener{
    String msg="";
    Button yes,no,maybe;
    public ButtonDemo() {
        setLayout(new FlowLayout());

        yes=new Button("Yes");
        no=new Button("No");
        maybe=new Button("Undecided");

        add(yes);
        add(no);
        add(maybe);

        yes.addActionListener(this);
        no.addActionListener(this);
        maybe.addActionListener(this);

        addWindowListener(new WindowAdapter(){
            public void windowClosing(WindowEvent we){
                System.exit(0);
            }
        });
    }
    public void actionPerformed(ActionEvent ae){
        String str=ae.getActionCommand();
        if(str.equals("Yes")){
            msg="You pressed Yes.";
        }
        else if(str.equals("No")){
            msg="You pressed No.";
        }
    }
}

```



```

yes.addActionListener(this);
no.addActionListener(this);
maybe.addActionListener(this);

addWindowListener(new WindowAdapter() {
    public void windowClosing(WindowEvent we) {
        System.exit(0);
    }
});
}

public void actionPerformed(ActionEvent ae) {
    String str=ae.getActionCommand();
    if(str.equals("Yes")){
        msg="You pressed Yes.";
    }
    else if(str.equals("No")){
        msg="You pressed No.";
    }
    else{
        msg="You pressed Undecided.";
    }
    repaint();
}

public void paint(Graphics g){
    g.drawString(msg,20,100);
}

public static void main(String args[]){
    ButtonDemo appwin=new ButtonDemo();
    appwin.setSize(new Dimension(250,150));
    appwin.setTitle("Button Demo");
    appwin.setVisible(true);
}
}

```




 Button-Demo



You pressed Yes.



 Button-Demo

— □ ×

You pressed No.



 Button-Demo



You pressed Undecided.