

3. write a program that creates a user interface to perform integer division. The user enters two numbers in the text fields, num1 and num2. The division of num1 & num2 is displayed in the result field when the divide button is clicked. If num1 or num2 were not in integer, the program should throw a NumberFormatException. If num2 were zero, 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);
        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);
    }
}
```

Window Adapter()

```
1 public void windowClosing(WindowEvent we)
{
    System.exit(0);
}
2);
```

```
3
public void actionPerformed(ActionEvent ae)
{
    int n1, n2;
    try {
        if (ae.getSource() == dResult)
        {
            n1 = Integer.parseInt(num1.getText());
            n2 = Integer.parseInt(num2.getText());
            out = n1 + " " + n2 + " ";
            resultNum = n1/n2;
            out += String.valueOf(resultNum);
            repaint();
        }
    }
```

```
catch (NumberFormatException e1)
{
    flag = 1;
    out = "Number format Exception! " + e1;
    repaint();
}
```

```
catch (ArithmeticException e2)
{
    flag = 1;
    out = "Divide by 0 Exception! " + e2;
    repaint();
}
```

```
4
public void paint(Graphics g)
```

```
{
    if (flag == 0)
        g.drawString(out, outResult.getX() + outResult.getY()
            - width1, outResult.getY() + outResult.getHeight());
}
```

```
else  
g.drawString(ad, 100, 200);  
flag = 0;  
}
```

Output

Number 1 : 24	Number 2 : 8	Result
Result 24 803.0		