

- Q) Write a program that creates user interface to perform integer division. User enters 2 num in text fields division of both numbers is displayed when divide is clicked. If either of them isn't an integer, raise NumberFormatException. If num 2 is 0, throw an arithmetic exception

```
⇒ import javax.swing.*;
import java.awt.*;
```

```
public class divide {
```

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

```
        JFrame frame = new JFrame ("Int division calc");
```

```
        frame.setDefaultCloseOperation (JFrame.EXIT_ON_CLOSE);
```

```
        frame.setSize (400, 250);
```

```
        JPanel panel = new JPanel();
```

```
        panel.setLayout (new GridLayout (4, 2));
```

```
        JLabel labelNum1 = new JLabel ("Enter num 1");
```

```
        JArea
```

```
        JTextField textNum1 = new JTextField();
```

```
        JLabel labelNum2 = new JLabel ("Enter num 2:");
```

```
        JTextField textNum2 = new JTextField();
```

```
        JButton button = new JButton ("Divide");
```

```
        button.addActionListener (new ActionListener() {
```

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

```
                try {
```

Date: / /

```
int num1 = Integer.parseInt(textNum1.getText());  
int num2 = Integer.parseInt(textNum2.getText());
```

```
if (num2 == 0)
```

```
    throw new ArithmeticException("/ by 0 not defined");
```

```
int res = num1 / num2;
```

```
JOptionPane.showMessageDialog(frame, "Result: " + res, "Division result",  
    JOptionPane.INFORMATION_MESSAGE);
```

```
}
```

```
catch (NumberFormatException e) {
```

```
    JOptionPane.showMessageDialog(frame, "Please Enter valid integer  
    Input Error", JOptionPane.ERROR_MESSAGE);
```

```
}
```

```
catch (ArithmeticException e) {
```

```
    JOptionPane.showMessageDialog(frame, e.getMessage(),  
    "Math Error", JOptionPane.ERROR_MESSAGE);
```

```
}
```

```
}  
}
```

```
panel.add(labelNum1);
```

```
panel.add(labelNum2);
```

```
panel.add(textNum1);
```

```
panel.add(textNum2);
```

```
panel.add(buttonDivide);
```

```
frame.add(panel);
```

```
frame.setVisible(true);
```

O/P:

Enter num 1: 20

Enter num 2: 10

divide

result: 2

16.12