28/12/24

LAB - 9

Q write a Program that creates a interface to perform integer divisions. The user enters two numbers in the 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 Exception Display the exception in a message dialog box.

Code with Explanation :

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

public class SwingDemo {
    SwingDemo() {
        JFrame jframe = new JFrame("Divider Tool");
        jframe.setSize(320, 300);
        jframe.setLayout(new FlowLayout());
        jframe.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        JLabel jlabel = new JLabel("Enter the Dividend
        and Divisor ::: \n");

        JTextField atf = new JTextField(20);
        JTextField btf = new JTextField(20);

        JButton jbtn = new JButton("Divide");

        JLabel err = new JLabel();
        JLabel aline = new JLabel();
```

```
jframe.add(jlabel);
jframe.add(aline);
jframe.add(atf);
jframe.add(alab);
jframe.add(btf);
jframe.add(blab);
jframe.add(jbtn);
jframe.add(anslab);
jframe.add(ell);

jbtn.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent ae){
        try{
            int a = Integer.parseInt(atf.getText());
            int b = Integer.parseInt(btf.getText());
            int ans = a/b;
            alab.setText("InA = "+a);
            blab.setText("InB = "+b);
            anslab.setText("In Ans = "+ans);
        }
        catch(NumberFormatException e){
            alab.setText("");
            blab.setText("");
            anslab.setText("");
            ell.setText("Enter only
                Integers");
        }
        catch(ArithmeticException e){
            alab.setText("");
            blab.setText("");
            anslab.setText("");
            ell.setText("B should be
            Non-zero Number.... !");
        }
    }
});
```

```
        jFrame.setVisible(true);
    }
    public static void main(String[] args) {
        SwingUtilities.invokeLater(new Runnable() {
            public void run() {
                new SwingDemo();
            }
        });
    }
}
```

Explanation:

1) JFrame : Used to create a frame window

2) .setSize(420,300) : Set window size width & height

3) .setLayout(new FlowLayout()); : Setting layout type.

4) JLabel : It is used to Display a line of Read only text.

5) JTextField : Create a Text Field

6) JButton: Creates a Button

7) .addActionListener : adding click listner on button

8) .setVisible(true/false) : make the frame visible & invisible

Output:

Enter the Dividend and Divisor :: [40] A = 40

[5] B = 5 [Divide] Ans = 8

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