20-2-24

Lab - 9

Write a program that creates a user interface to perform integer divisions.

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

class UserInterface {
    UserInterface() {
        JFrame jfrm = new JFrame("Divider App");
        jfrm.setSize(275, 150);
        jfrm.setLayout(new FlowLayout());
        jfrm.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        JLabel jlab = new JLabel("Enter the divider and dividend:");
        JTextField ajtf = new JTextField(8);
        JTextField bjtf = new JTextField(8);

        JButton button = new JButton("Calculate");
        JLabel err = new JLabel();
        JLabel alab = new JLabel();
        JLabel blab = new JLabel();
        JLabel anslab = new JLabel();

        jfrm.add(err);
        jfrm.add(jlab);
        jfrm.add(ajtf);
        jfrm.add(bjtf);
        jfrm.add(button);
        jfrm.add(alab);
        jfrm.add(blab);
        jfrm.add(anslab);
```

```
ActionListener l = new ActionListener(){
    public void actionPerformed(ActionEvent evt){
        System.out.println("Action event from a text field");
    }
};
ajtf.addActionListener(l);
bjtf.addActionListener(l);
button.addActionListener(new ActionListener(){
    public static void main
    public void actionPerformed(ActionEvent evt){
        try{
            int a = Integer.parseInt(ajtf.getText());
            int b = Integer.parseInt(bjtf.getText());
            int ans = a/b;
            alab.setText("In A = "+a);
            blab.setText("In B = "+b);
            anslab.setText("In Ans = "+ans);
        }catch(NumberFormatException e){
            alab.setText("");
            blab.setText("");
            anslab.setText("");
            err.setText("Enter only Integers!");
        }catch(ArithmeticException e){
            alab.setText("");
            blab.setText("");
            anslab.setText("");
            err.setText("B should be NON zero!");
        }
    }
});
jfrm.setVisible(true);
}
```

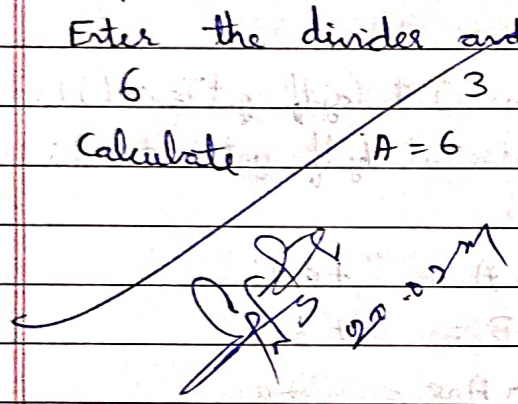
```
public static void main (String args[]) {
    SwingUtilities.invokeLater(new Runnable() {
        public void run() {
            new UserInterface();
        }
    });
}
}
```

Output:

Enter the divider and dividend

6 3

Calculate A = 6 B = 3 Ans = 2



Functions used

JFrame: It is a top level container in Java String that represents a window with a title bar, border and optional menubar.