

12/24
import Write a program that creates a
uses Interface to perform Integer division

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

```
class SwingDemo {  
    SwingDemo()  
    {
```

```
        JFrame jfrm = new JFrame("Divides kpp");  
        jfrm.setSize(275, 200);  
        jfrm.setLayout(new FlowLayout());  
        jfrm.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
```

```
        JLabel jlab = new JLabel("Enter the divides  
        and dividend:");
```

```
        JTextField ajtf = new JTextField(8);  
        JTextField ajtf = new JTextField(8);
```

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



```
Label ess = new Label();  
Label alab = new Label();  
Label slab = new Label();  
Label anslab = new Label();
```

```
jfrm.add(ess);  
jfrm.add(slab);  
jfrm.add(ajtf);  
jfrm.add(bjtf);  
jfrm.add(button);  
jfrm.add(alab);  
jfrm.add(slab);  
jfrm.add(anslab);
```

```
ActionListener 2 = new ActionListener() {
```

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

```
        System.out.println("Action event from a  
        text field");
```

```
    }
```

```
};
```

```
ajtf.addActionListener(2);  
bjtf.addActionListener(1);
```



```
button.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent evt)
    {
```

```
        try {
```

```
            int a = Integer.parseInt(jTextField.getText());
            int b = Integer.parseInt(jTextField2.getText());
            if (b == 0) {
```

```
                throw new ArithmeticException();
```

```
            }
```

```
            int ans = a/b;
```

```
            alab.setText("A = " + a);
```

```
            blab.setText("B = " + b);
```

```
            ansLab.setText("Ans = " + ans);
```

```
            err.setText("");
```

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

```
            alab.setText("");
```

```
            blab.setText("");
```

```
            err.setText("Enter only Integers!");
```

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

```
            alab.setText("");
```

```
            blab.setText("");
```

```
            ansLab.setText("");
```

```
            err.setText("B should be non zero!");
```

```
        }
```

```
    }
}
```

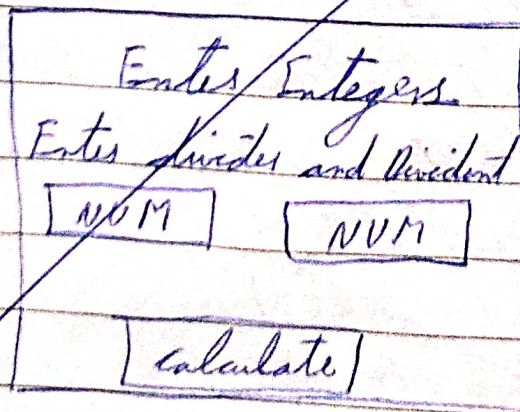


```
} gfm.setVisible(true);  
}  
public static void main (String args[]) {  
    SwingUtilities.invokeLater (new Runnable() {  
        public void run() {  
            {  
                new SwingDemo ();  
            }  
        }  
    });  
}
```

Output :-

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Enter the dividend and Divident

4

2

Calculate | $A = 4$ $B = 2$ $Ans = 2$

Enter Integer

int

2

Calculate

Error: Action event from a text field

Enter dividend and Divident

2

0

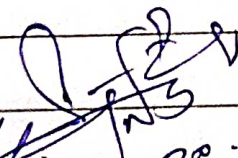
Calculate

Error: Text field element cannot be 0.

+ Functions Used:-

- 1) **JFrame** - JFrame class type is a container which inherits the java.awt.Frame class. JFrame works like the main window where components like label, buttons, textfields are added to create GUI.
- 2) **setSize** :- This method of Java class is used to set of a vector. If the size is greater than the current size, null items are added to the end of the vector.
- 3) **setLayout** - It is used to arrange components in a particular manner and is used to control the positioning and size of the components in GUI forms.
- 4) **setDefaultCloseOperation** :- It plays an vital role in creating interactive applications. It is essential to handle close operations.

- 5) JLabel - Used to place text in a container. It is used to display a single line of read-only text.
- 6) JTextField - It is a text component that allows the editing of a single line text. It inherits JTextComponent class.
- 7) addFrame - Used to add new frame in the GUI. it plays a vital role in GUI creation process.
- 8) addActionListener - It is used to notify whenever you click on the button or menu item. It is notified against ActionEvent.
- 9) Set Text :- This method is used to set the new text into the JTextArea used as setText().


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