

## TWO Programs showing actions in Java GUI

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

//public class AL extends Frame implements WindowListener,ActionListener {
public class AL extends Frame implements ActionListener {
    TextField text = new TextField(20);
    Button b;
    private int numClicks = 0;

    public static void main(String[] args) {
        AL myWindow = new AL("My first window");
        myWindow.setSize(350,100);
        myWindow.setVisible(true);
    }

    public AL(String title) {
        super(title);
        setLayout(new FlowLayout());
        //addWindowListener(this);
        b = new Button("Click me");
        add(b);
        add(text);
        b.addActionListener(this);
    }

    public void actionPerformed(ActionEvent e) {
        numClicks++;
        text.setText("Button Clicked " + numClicks + " times");
    }

    // public void windowClosing(WindowEvent e) {
    //     dispose();
    //     System.exit(0);
    // }

    // public void windowOpened(WindowEvent e) {}
    // public void windowActivated(WindowEvent e) {}
    // public void windowIconified(WindowEvent e) {}
    // public void windowDeiconified(WindowEvent e) {}
    // public void windowDeactivated(WindowEvent e) {}
    // public void windowClosed(WindowEvent e) {}
}
```

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

public class ActionTester{
    public static void main(String[] args){
        JFrame frame = new JFrame();
        final int FIELD_WIDTH = 20;
        final JTextField textField = new JTextField(FIELD_WIDTH);
        textField.setText("Click a button!");

        JButton helloButton = new JButton("Say Hello");

        helloButton.addActionListener(new ActionListener(){
            public void actionPerformed(ActionEvent event){
                textField.setText("Hello, World!");
            }
        });

        JButton goodbyeButton = new JButton("Say Goodbye");

        goodbyeButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent event){
                textField.setText("Goodbye, World!");
            }
        });

        frame.setLayout(new FlowLayout());

        frame.add(helloButton);
        frame.add(goodbyeButton);
        frame.add(textField);

        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.pack();
        frame.setVisible(true);
    }
}
```