

A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is a light green color. Both are tilted at an angle.

Building a Swing GUI

Using Eclipse's WindowBuilder



Install WindowBuilder

1. Open Eclipse
2. Click Help...
3. Select Eclipse Marketplace
4. Search for WindowBuilder then Install
5. In case, the Windows Builder is not compatible from eclipse market place, copy the installation URL (<http://download.eclipse.org/windowbuilder/latest/> or <https://www.eclipse.org/windowbuilder/download.php>) and download plugin.....
Copy URL -> Help -> Install new software - > add
6. Restart Eclipse



Import the Project from LMS

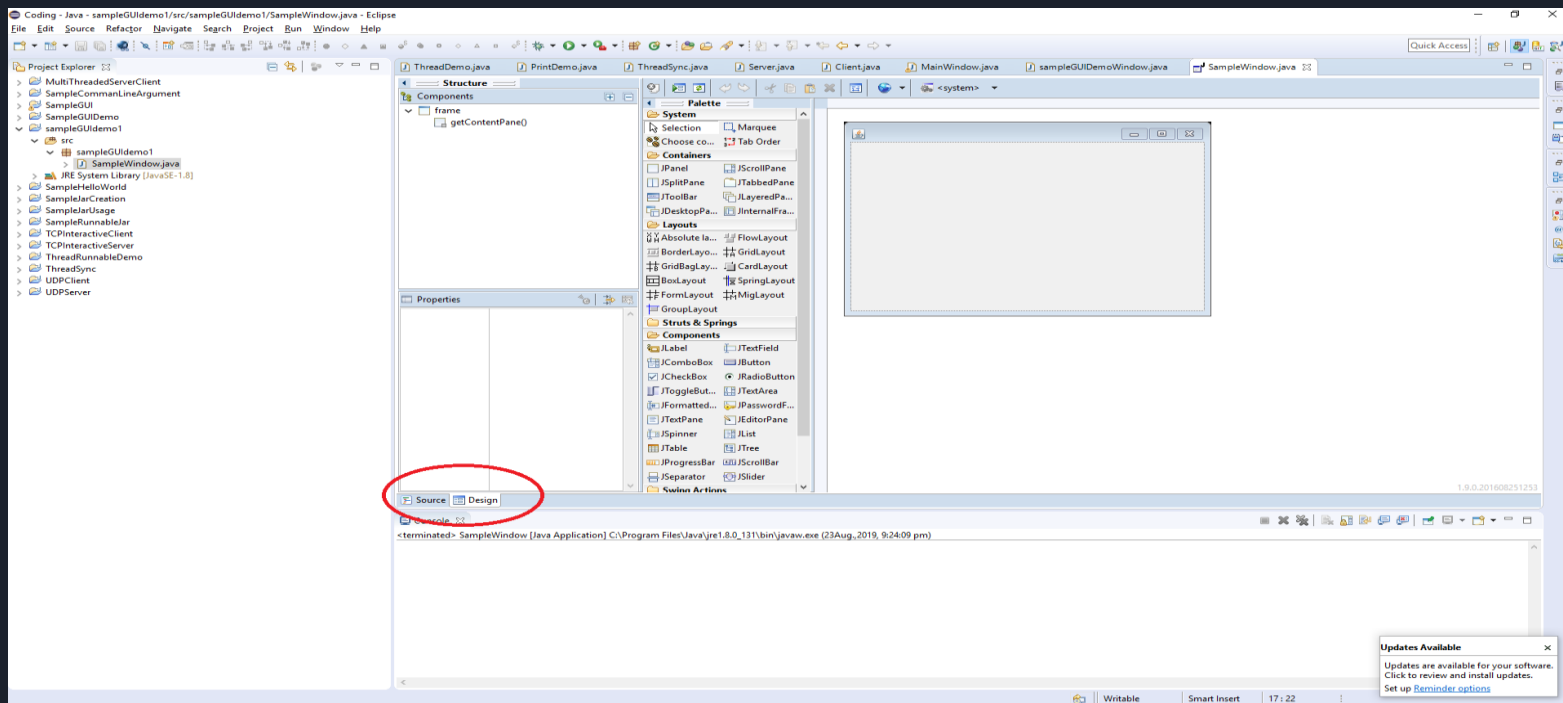
For those of you who are interested in how to create your own without importing the LMS Project:

1. Create a new Java Project
2. Then Right Click on the src folder and do:

New > Other > WindowBuilder > Swing Designer > Application Window

```
1+ import java.awt.EventQueue;
4
5 public class MainWindow {
6
7     private JFrame frame;
8
9     /**
10      * Launch the application.
11      */
12     public static void main(String[] args) {
13         EventQueue.invokeLater(new Runnable() {
14             public void run() {
15                 try {
16                     MainWindow window = new MainWindow();
17                     window.frame.setVisible(true);
18                 } catch (Exception e) {
19                     e.printStackTrace();
20                 }
21             }
22         });
23     }
```

- Instead of writing code explicitly, we can switch to design mode and drag and drop the buttons, text fields, etc...



Structure

Components

- frame
 - getContentPane()

Properties

<No Properties>

Palette

System

- Selection Marquee
- Choose ... Tab Ord...

Containers

- JPanel JScrollP...
- JSplitP... JTabbe...
- JToolBar JLayer...
- JDesk... JIntern...

Layouts


- Absolut... FlowLa...
- Border... GridLay...
- GridBag... CardLay...
- BoxLay... SpringL...
- FormLa... MigLay...
- GroupL...

Struts & Springs

Components

- JLabel JTextFi...
- JComb... JButton
- JCheck... JRadio...
- JToggle... JTextAr...
- JForma... JPassw...
- JTextPa... JEditor...
- JSpinner JList

Metal





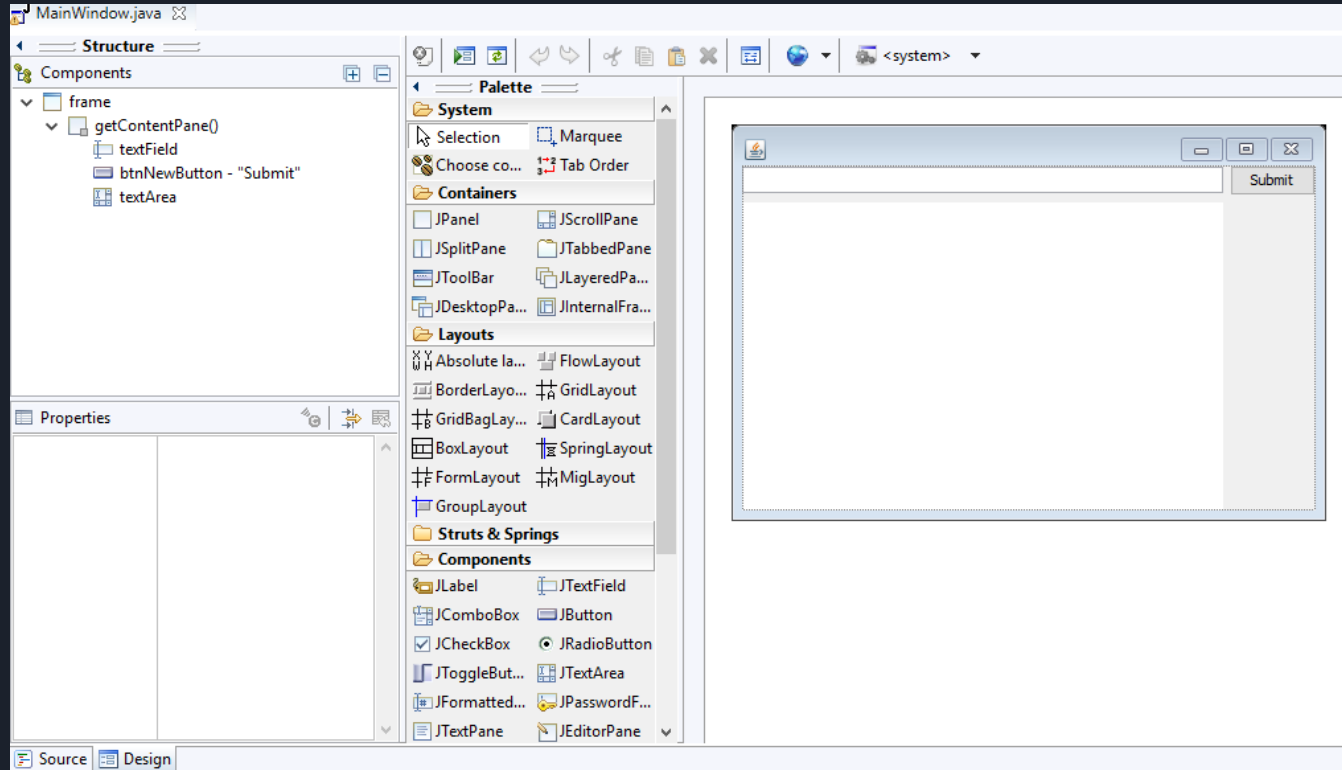
Layouts - A crash course

Absolute Layout : Does not scale when resized

Grid Layout: Items are rendered on a grid and will stack or unstack depending on the size of the window

GridBagLayout: <https://docs.oracle.com/javase/tutorial/uiswing/layout/gridbag.html>

Add things to the GUI as desired





Event Handlers

Right click a component (i.e. a button) and select

Event Handler > action > actionPerformed

See line 85 – 89 of MainWindow.java