



INSTITUTO FEDERAL
DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA
Bahia

Linguagem de Programação II

Introdução às Interfaces Gráficas de
Usuário (GUI) em Java: Pacote Swing
(JFrame, JPanel, JLabel, JTextField,
JPasswordField e JButton)



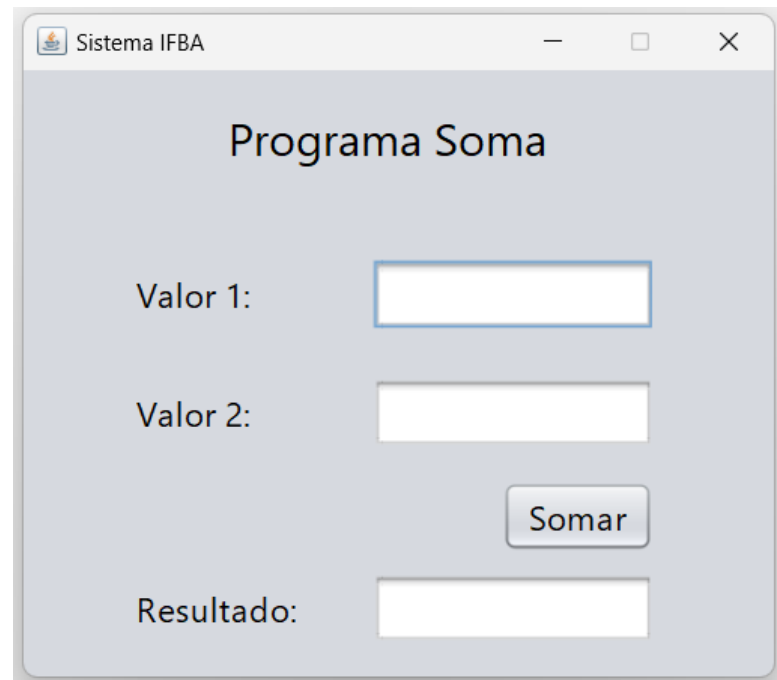
Roteiro

- Introdução às Interfaces Gráficas de Usuário (GUI) em Java (Swing):
 - Introdução;
 - Componentes;
 - JFrame (Janela);
 - Netbeans e Swing
 - JButton (Botão)
 - JLabel (Rótulo ou Etiquetas);
 - JTextField (Campo de Texto);
 - JPasswordField (Campo de Senha);



Java Swing - Introdução

- Na **Interface Gráfica** é necessário definir quais **componentes (objetos)** serão utilizados e a **disposição** que **eles** terão na **janela (objeto)**.

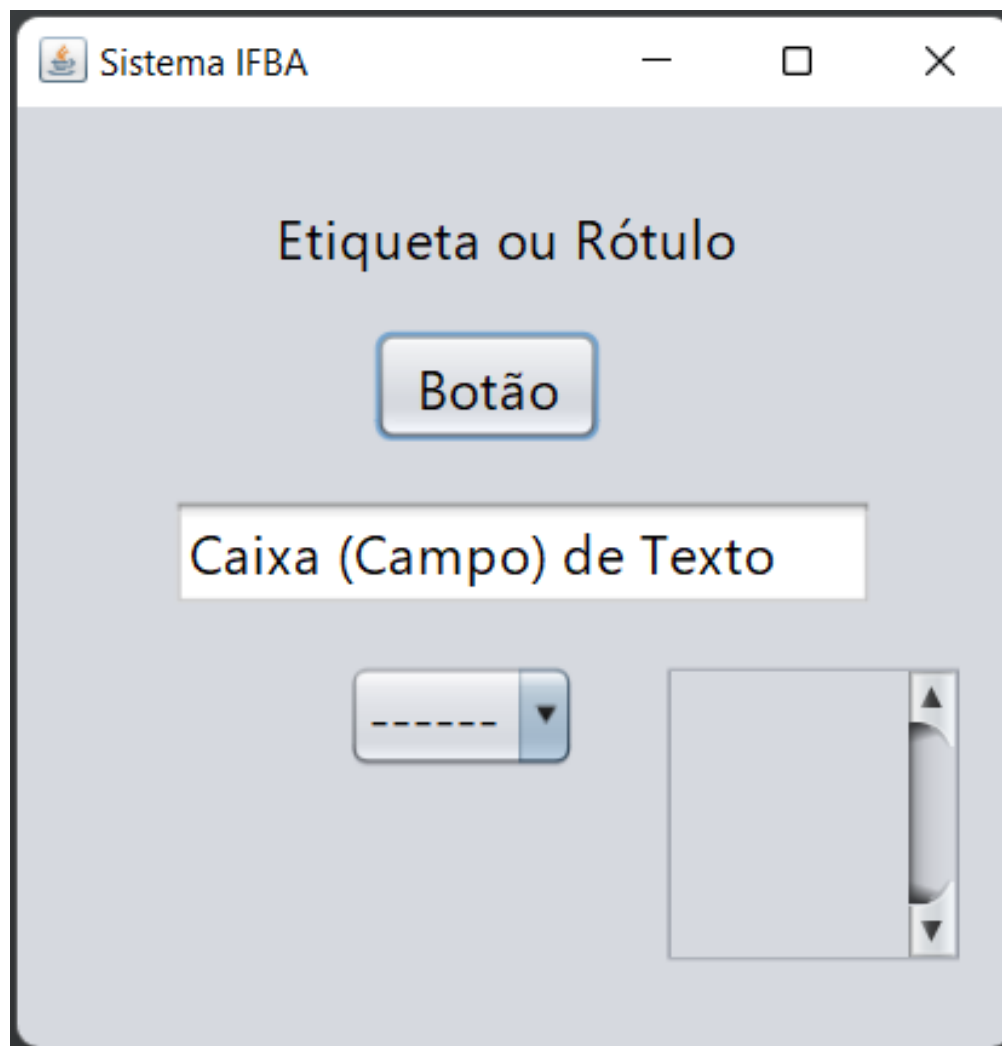


Java Swing – Componentes

- Um **componente** da **Interface Gráfica** é um **objeto visual (Java)** que possibilita realizar a **interação com o programa** por meio do **mouse** e do **teclado**.
- Ex.: **etiquetas, botões, caixas de texto, painéis de rolagem, menus, objetos de múltipla escolha**, entre outros.



Java Swing – Componentes

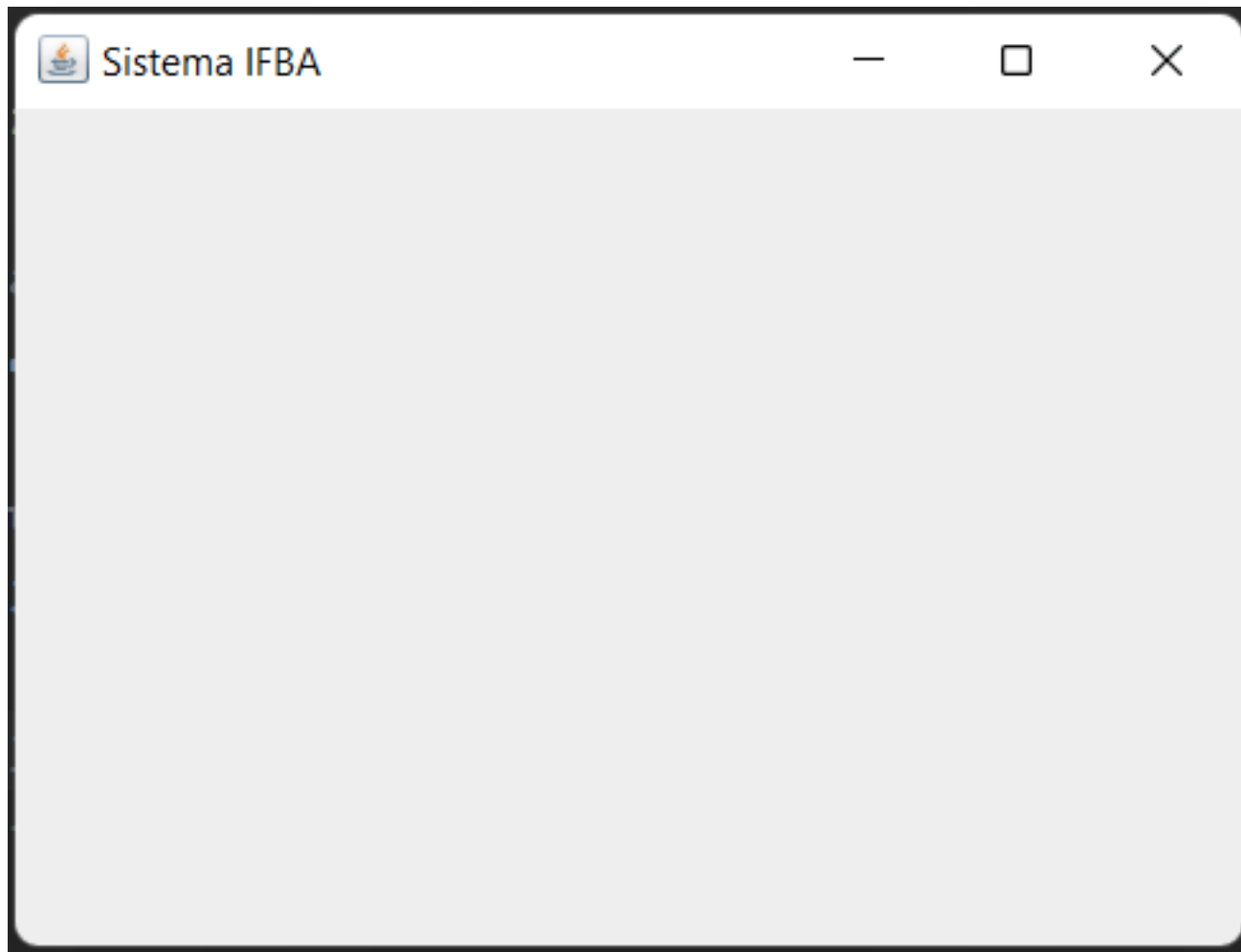


Java Swing – JFrame

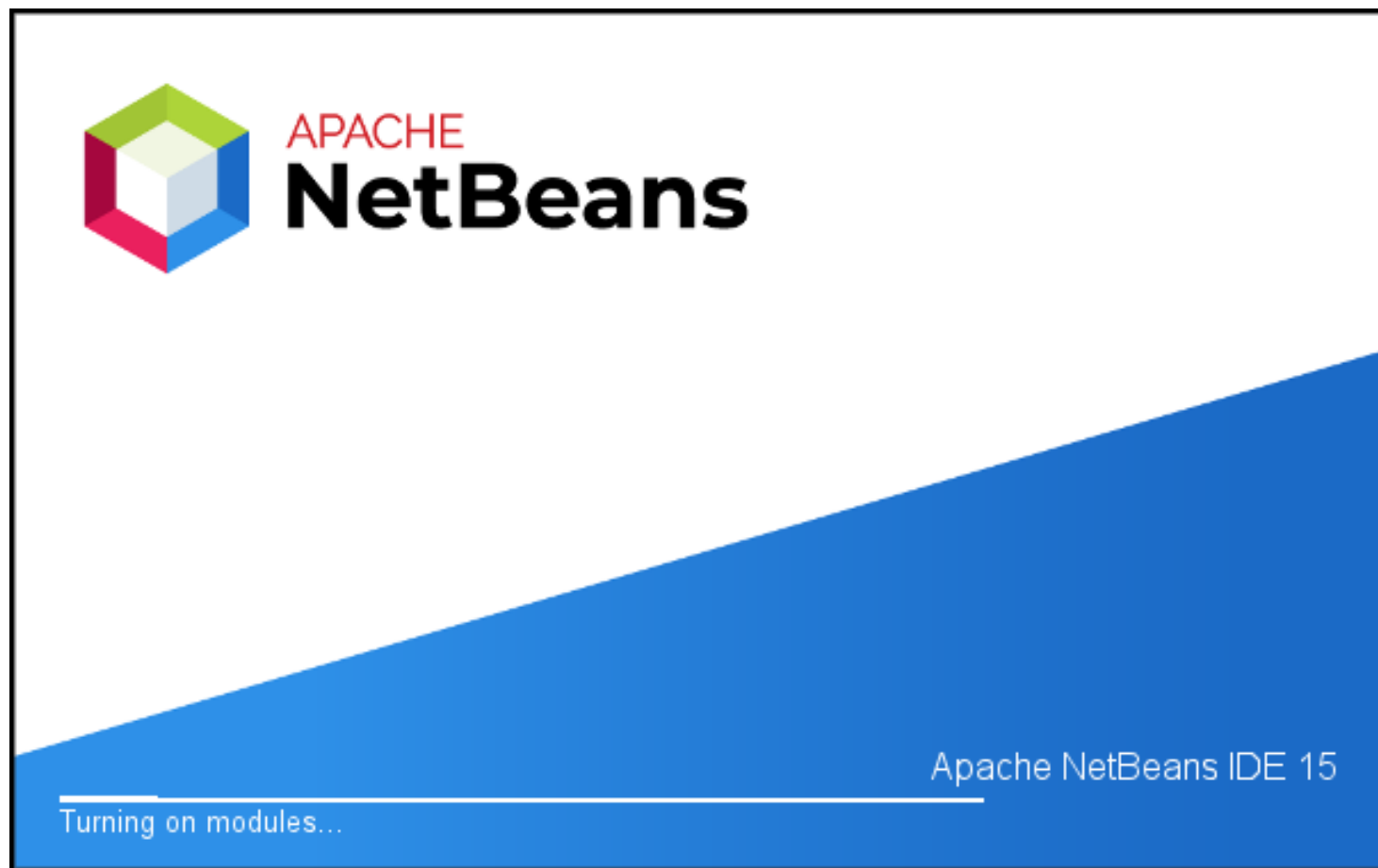
- Para criar **Janelas** utilizaremos a classe **JFrame** disponível no pacote **swing**, a qual gera uma **janela** com **barra de título**, **bordas** e eventualmente outros **componentes visuais**.

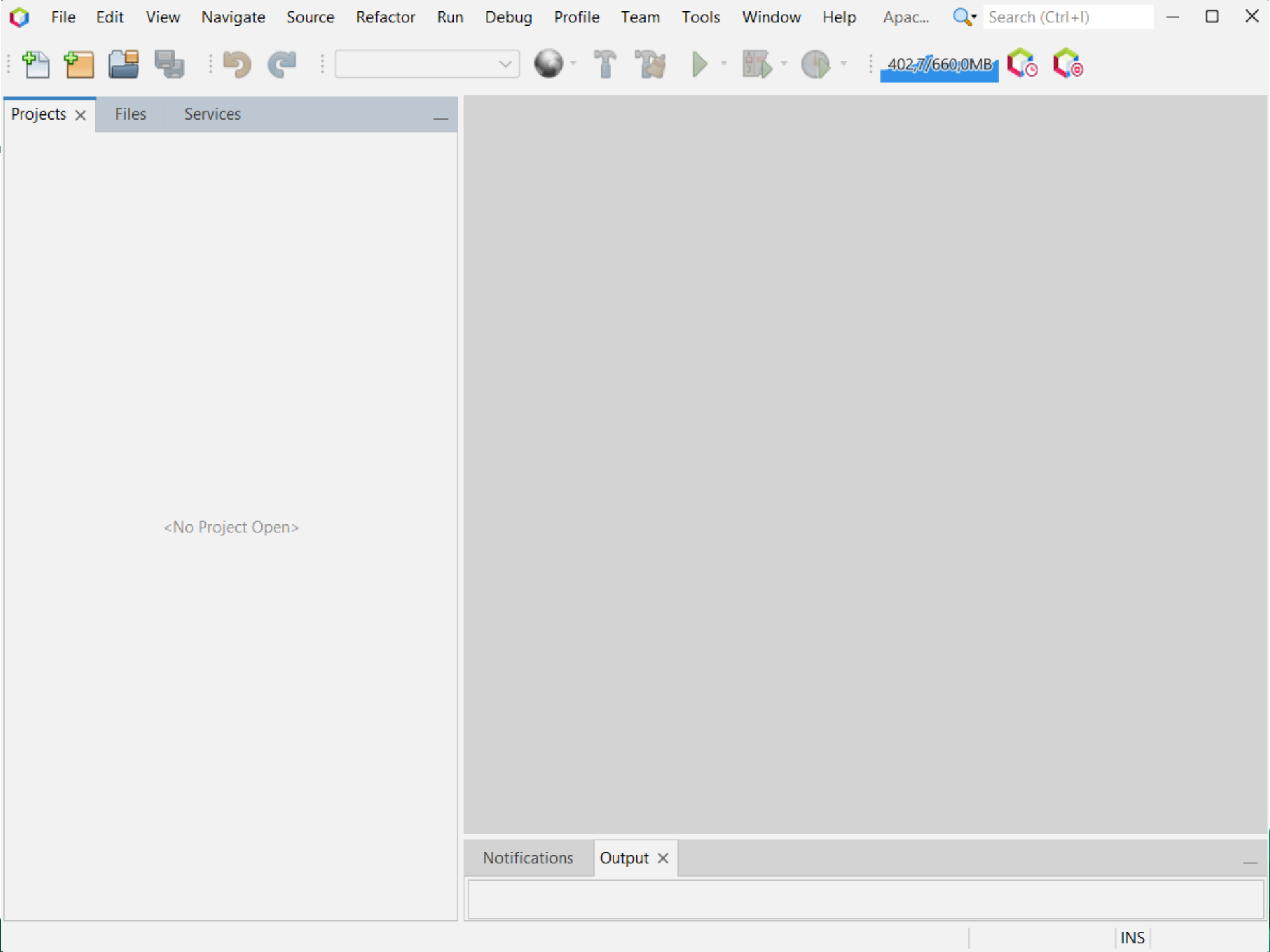


Java Swing – JFrame

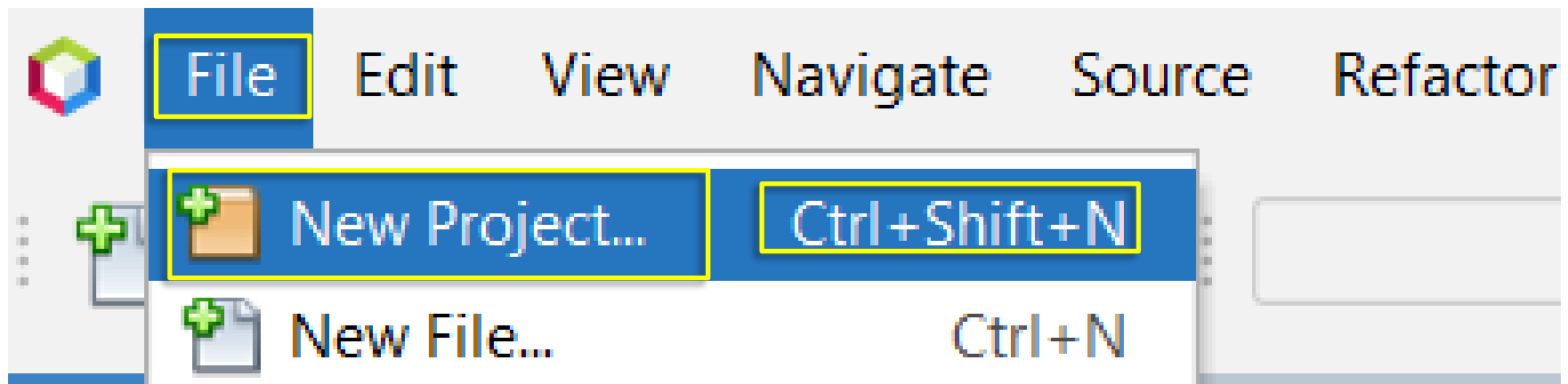


Netbeans: IDE





Netbeans: Novo Projeto



Netbeans: Novo Projeto

Choose Project



Filter:

Categories:

- Java with Maven
- Java with Gradle
- Java with Ant
- JavaFX
- Java Web

Projects:

- Java Application
- Java Class Library
- Java Project with Existing Sources
- Java Modular Project
- Java Free-Form Project



Netbeans: Novo Projeto

Name and Location

Project Name:

Project Location:

Project Folder:

☐ Use Dedicated Folder for Storing Libraries

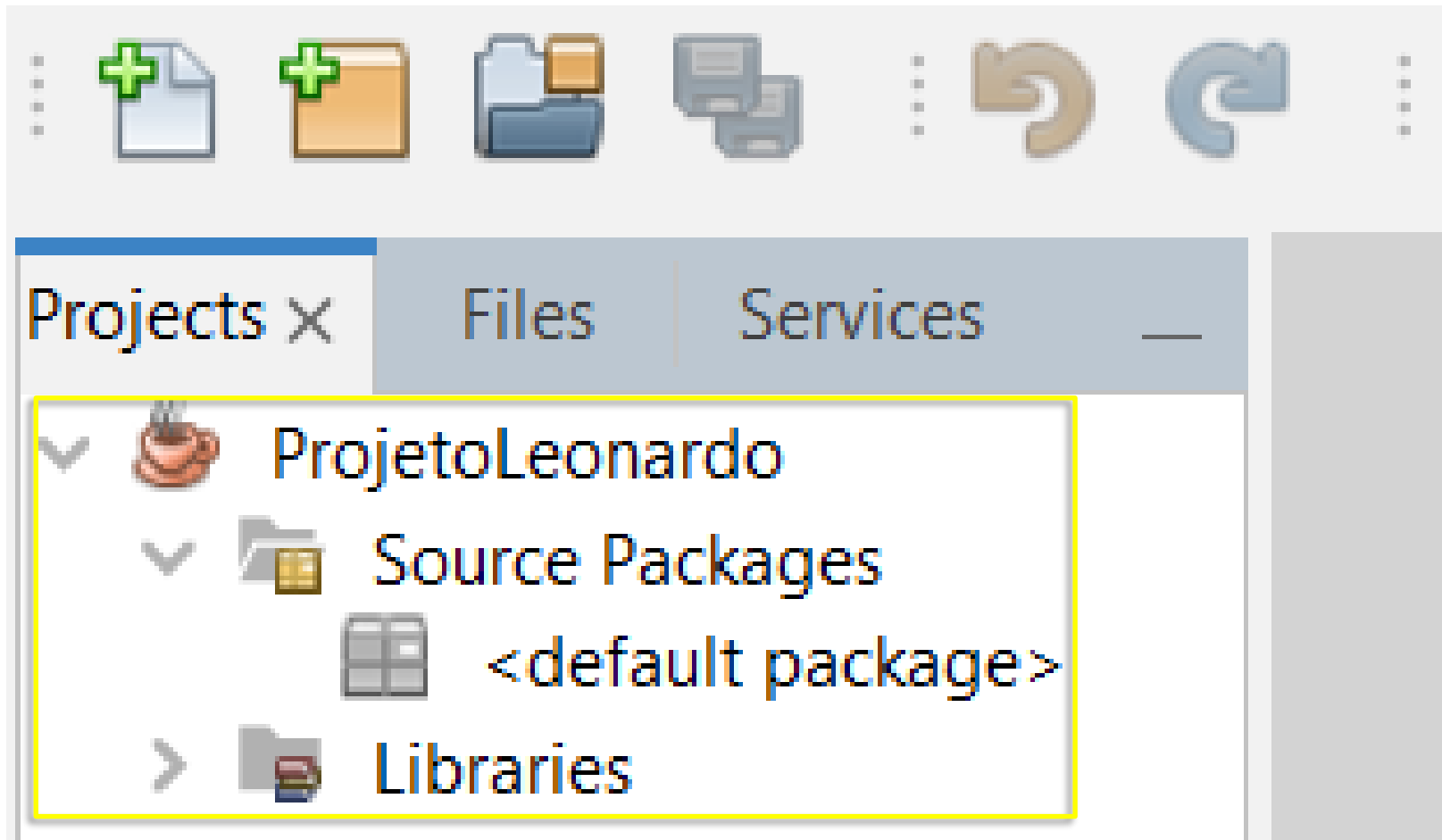
Libraries Folder:

Different users and projects can share the same compilation libraries (see Help for details).

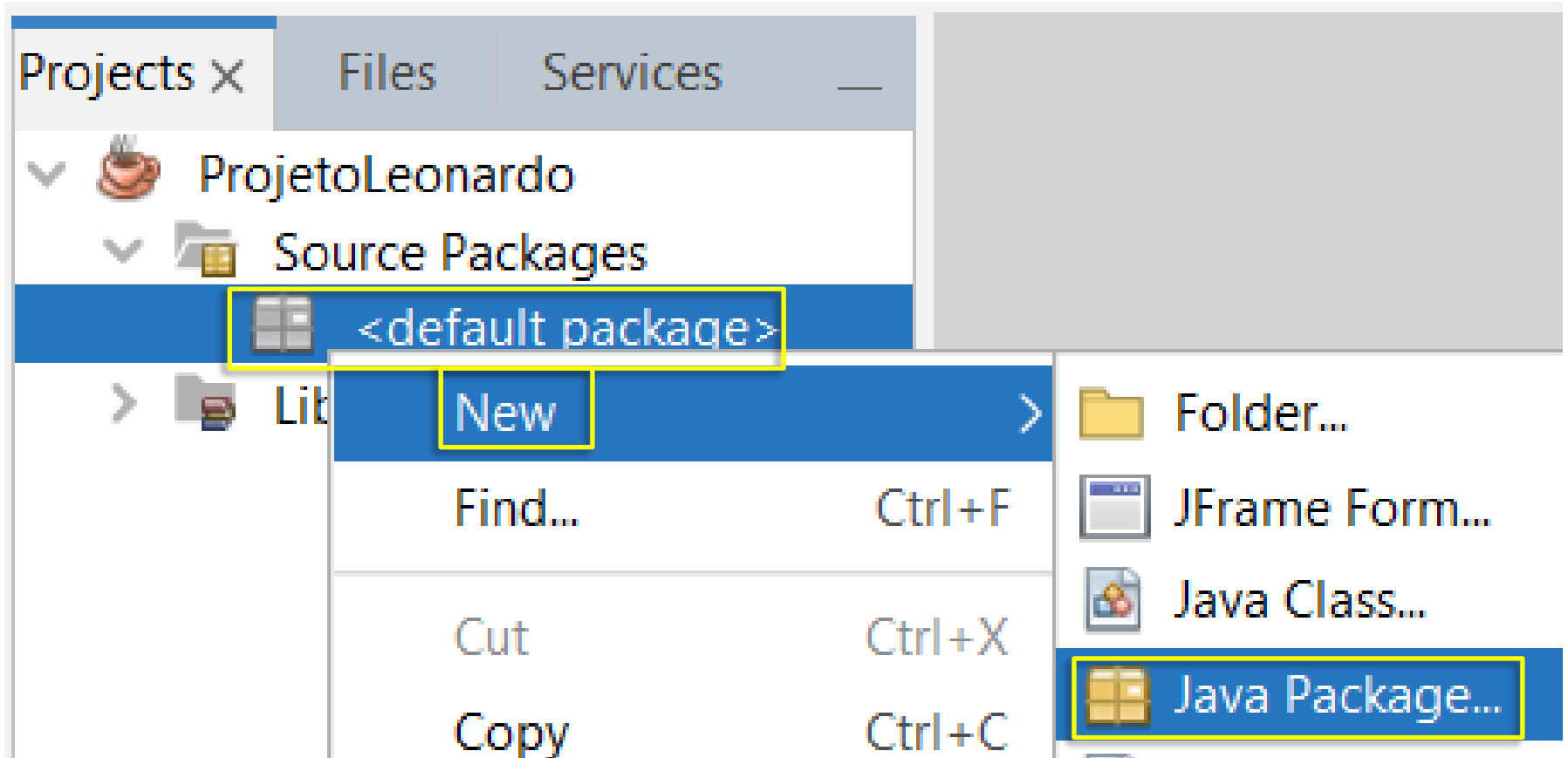
☐ Create Main Class



Netbeans: Novo Projeto



Netbeans: Novo Pacote



Netbeans: Novo Pacote

Name and Location

Package Name:

Principal

Project:

ProjetoLeonardo

Location:

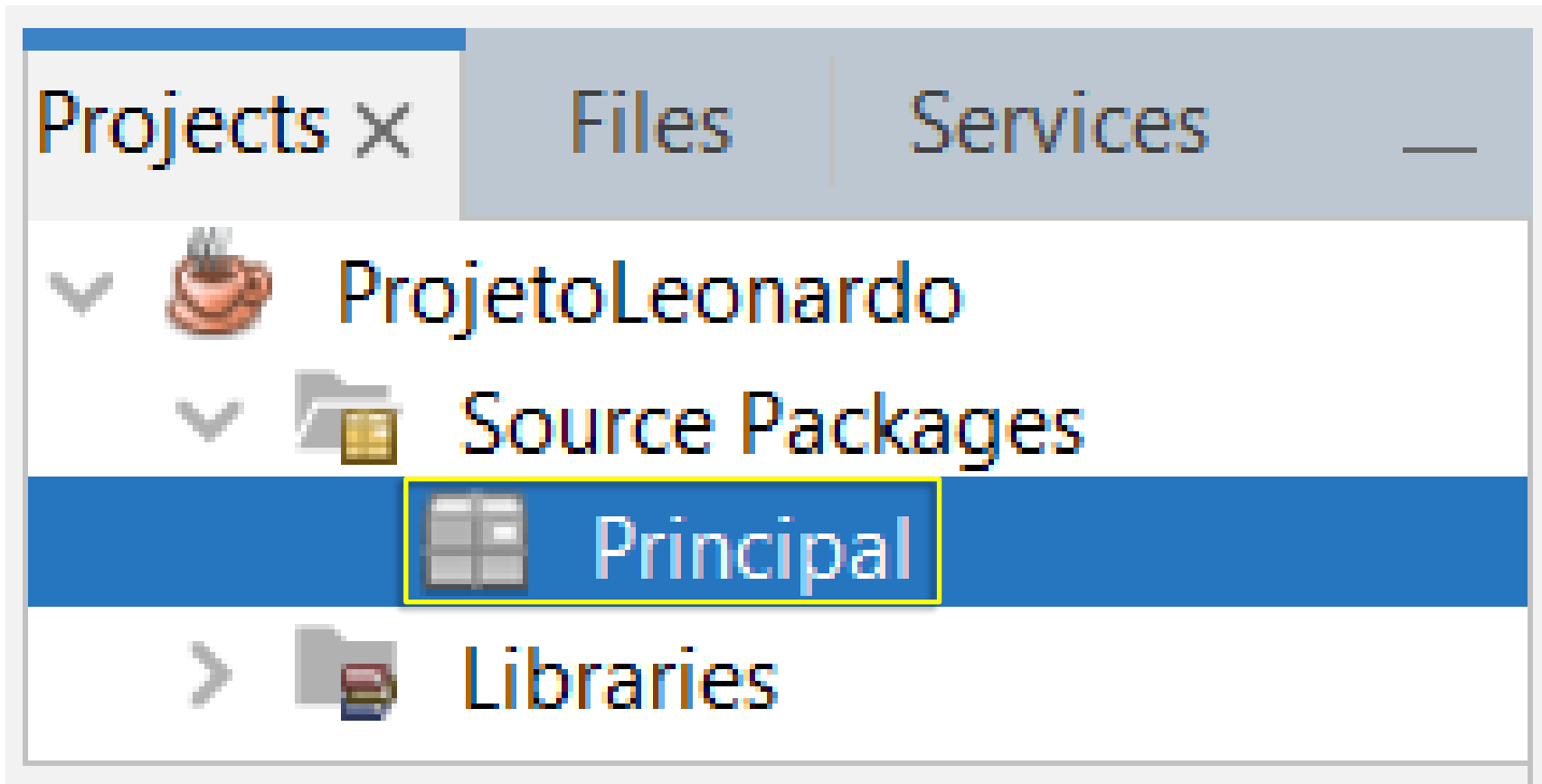
Source Packages

Created Folder:

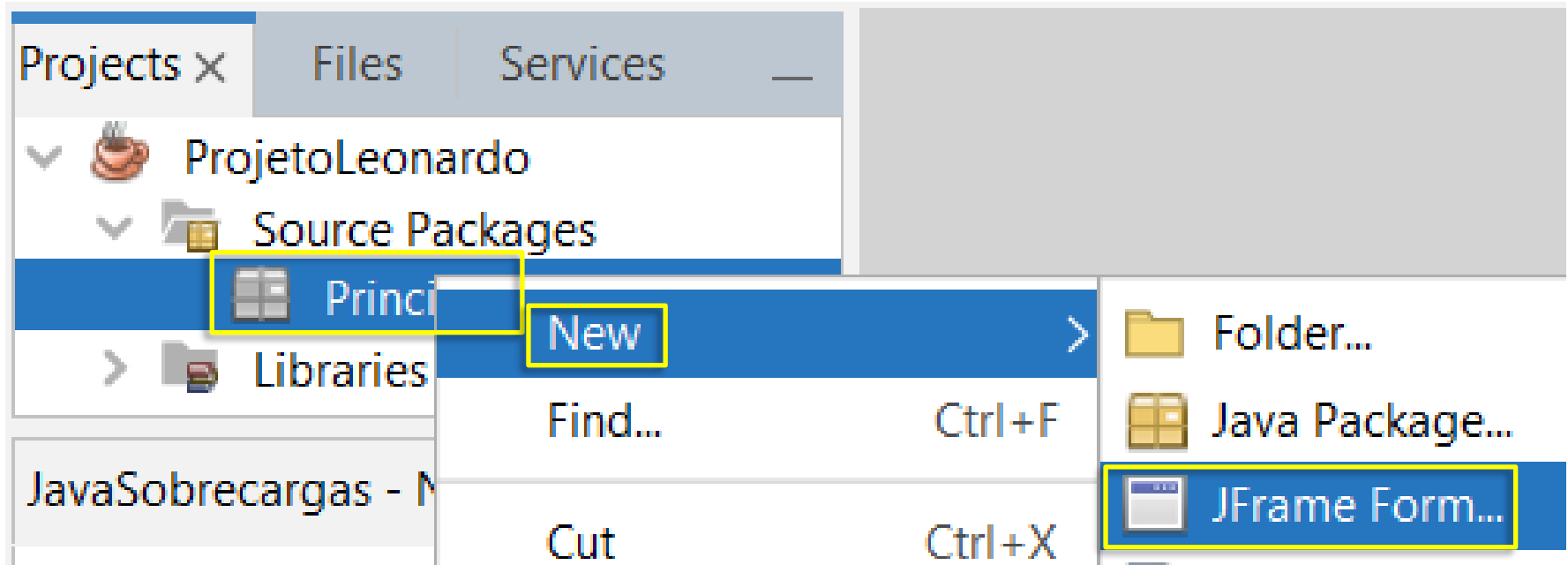
.:\\Users\\leomi\\Documents\\NetBeansProjects\\ProjetoLeonardo\\src\\Principal



Netbeans: Novo Pacote



Netbeans: Nova Janela (JFrame)



Netbeans: Nova Janela (Jframe)

Name and Location

Class Name:

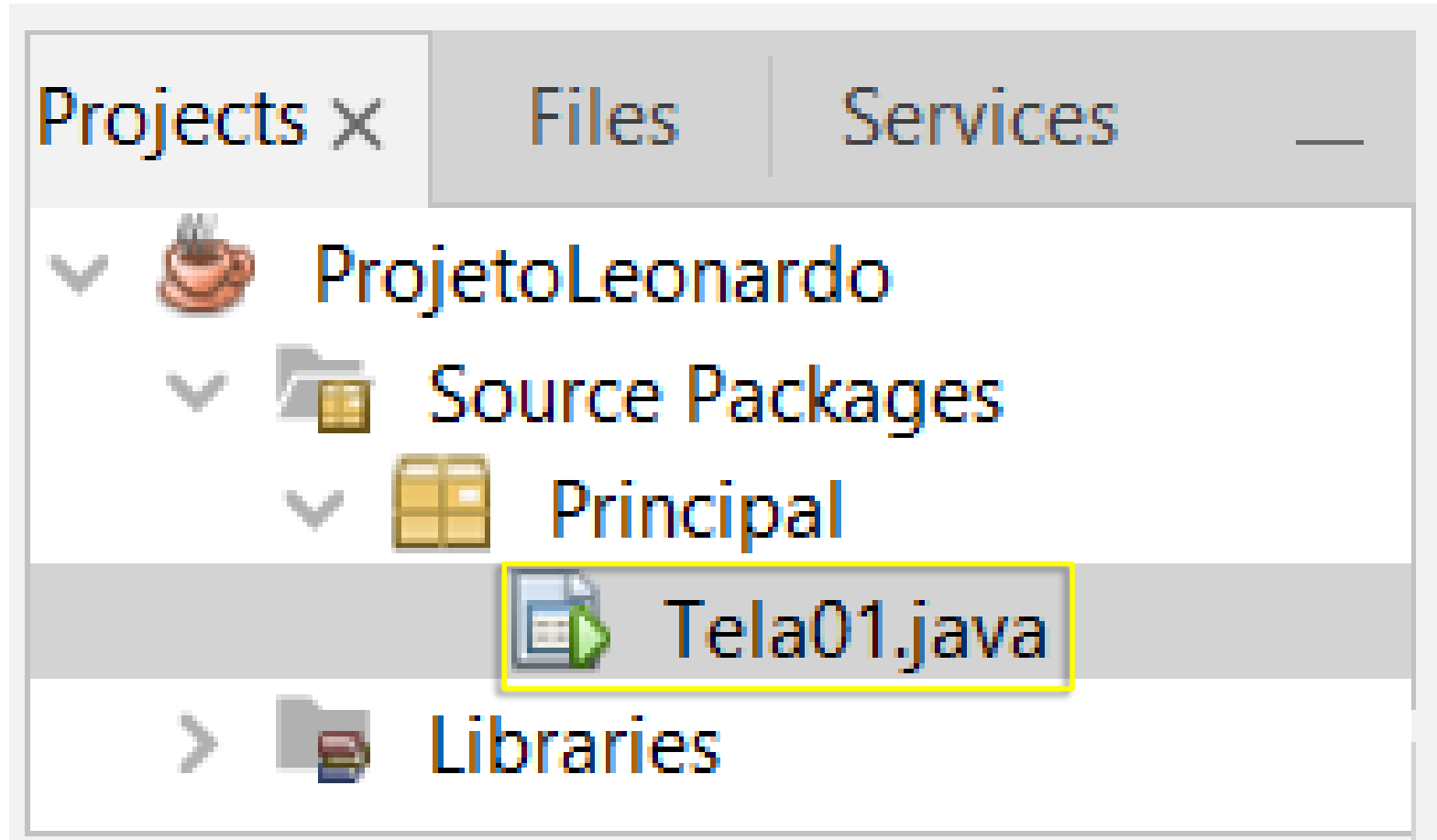
Project:

Location:

Package:



Netbeans: Nova Janela (JFrame)



Projects x Files Services


- ProjetoLeonardo
 - Source Packages
 - Principal
 - Tela01.java
 - Libraries

[JFrame] - Navigator x

- Form Tela01
 - Other Components
 - [JFrame]

Tela01.java x

Source Design History



Palette x

Swing Containers

- Panel
- Tabbed Pane
- Split Pane
- Scroll Pane
- Tool Bar
- Desktop Pane
- Internal Frame

[JFrame] - Properties x

Properties Events

Code

Properties

defaultCloseOperation	EXIT_ON...	...
title		...

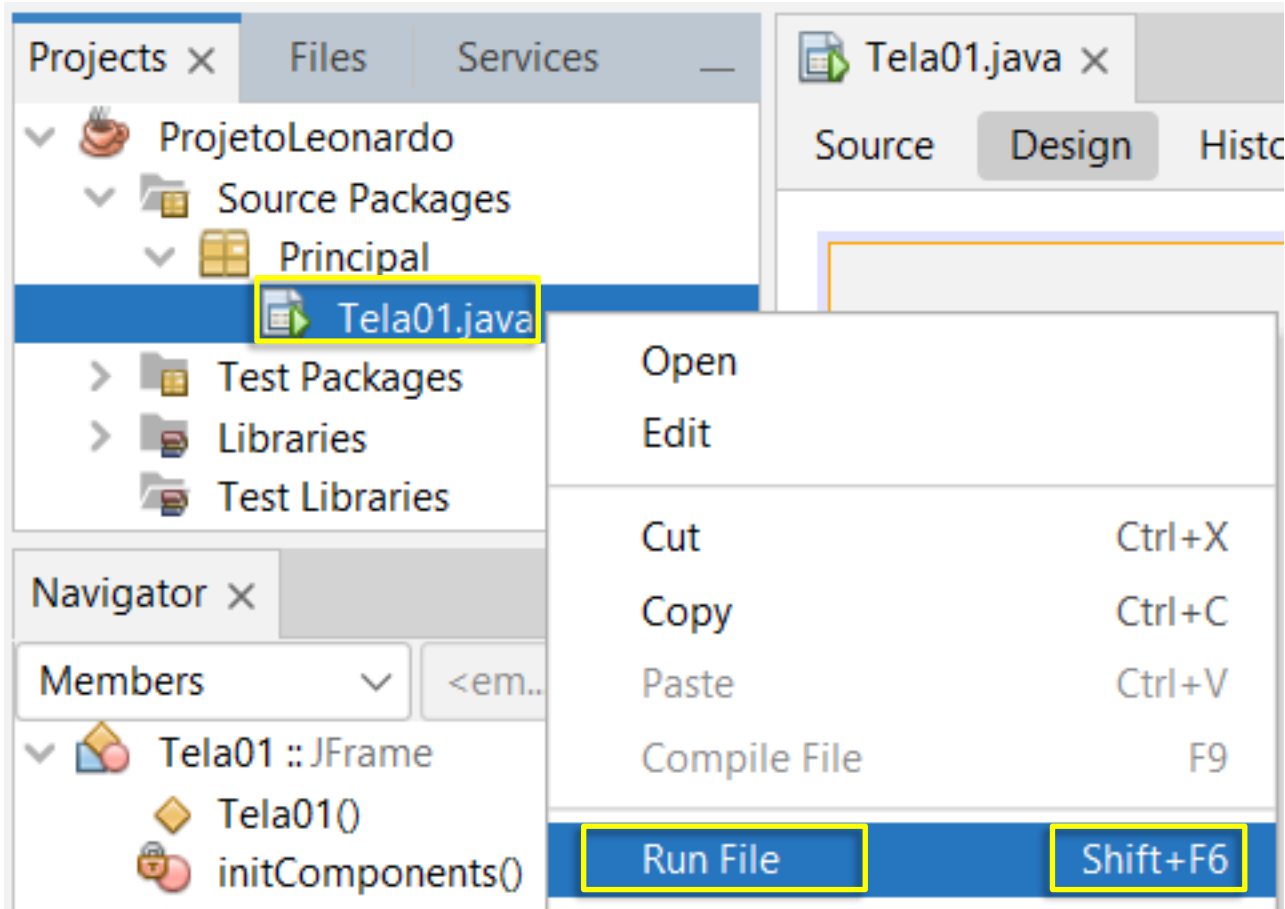
Other Properties

alwaysOnTop	<input type="checkbox"/>	...
alwaysOnTopSupport	<input checked="" type="checkbox"/>	...

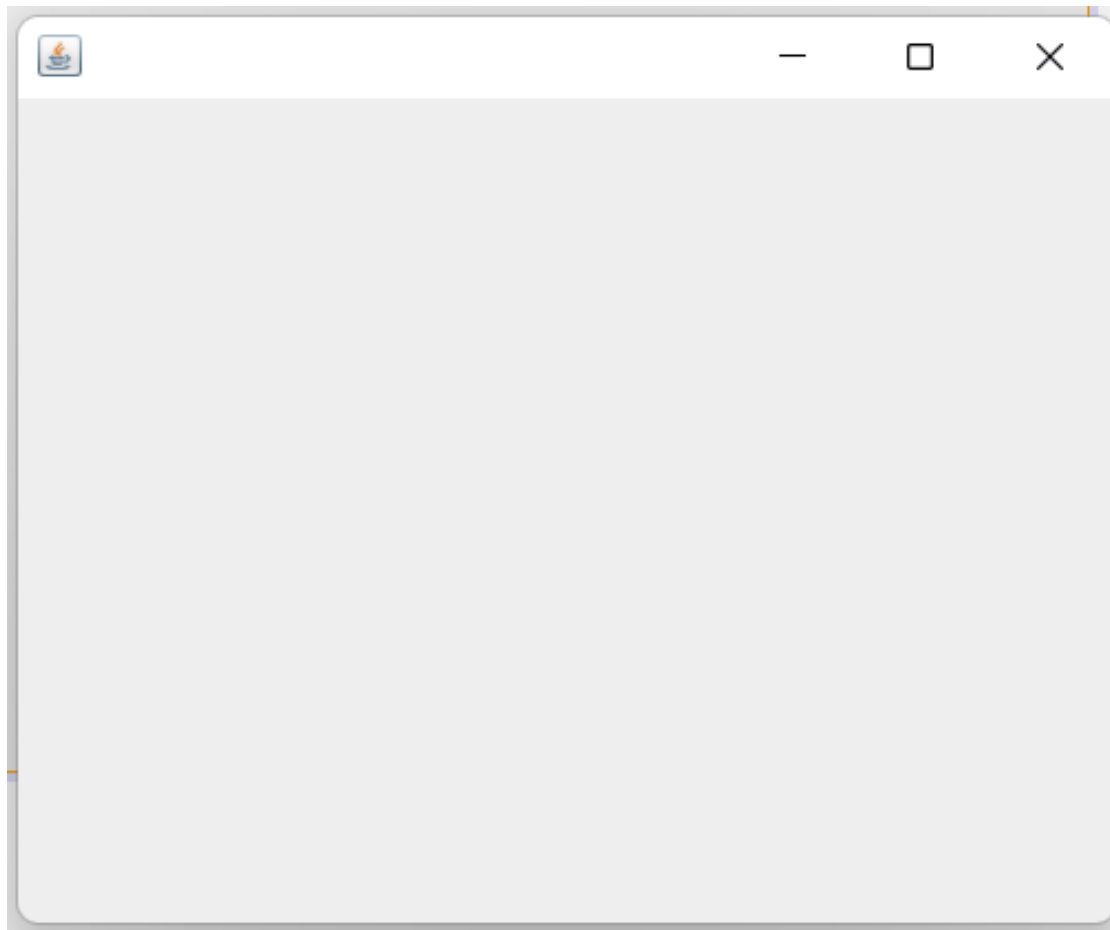
[JFrame]

Notifications Output x

Netbeans: Executando Janela (JFrame)



Netbeans: Executando Janela (JFrame)





```
1 package Principal;
```

```
2  
3 public class Tela01 extends javax.swing.JFrame {
```

```
4  
5     public Tela01() {  
6         initComponents();  
7     }  
8
```

```
9 + Generated Code
```

```
27  
28     public static void main(String args[]) {  
29         new Tela01().setVisible(true);  
30     }  
31
```

```
32 // Variables declaration - do not modify  
33 // End of variables declaration  
34
```

```
}
```




```
1 package Principal;
```

Pacote

```
2  
3 public class Tela01 extends javax.swing.JFrame {
```

Construtor

Classe

Herança

```
4 public Tela01() {  
5     initComponents();  
6 }  
7
```

Chamada de método que
inicializa componentes

Generated Code

Inicialização e configuração de
componentes

Método estático "main"

```
27  
28 public static void main(String args[]) {  
29     new Tela01().setVisible(true);  
30 }  
31
```

Declaração
de variáveis

Cria objeto (componente) Tela01 e o torna visível

```
32 // Variables declaration - do not modify  
33 // End of variables declaration  
34 }
```

```
// <editor-fold defaultstate="collapsed" desc="Generated Code">
```

```
private void initComponents() {
```

```
    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
```

```
    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
```

```
    getContentPane().setLayout(layout);
```

```
    layout.setHorizontalGroup(
```

```
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
            .addGap(0, 400, Short.MAX_VALUE)
```

```
    );
```

```
    layout.setVerticalGroup(
```

```
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
            .addGap(0, 300, Short.MAX_VALUE)
```

```
    );
```

```
    pack();
```

```
}// </editor-fold>
```

```
// <editor-fold defaultstate="collapsed" desc="Generated Code">
```

```
private void initComponents() {
```

Método

Comportamento do ícone (botão) de fechar o JFrame

```
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
```

```
javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
```

```
getContentPane().setLayout(layout);
```

```
layout.setHorizontalGroup(
```

```
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
        .addGap(0, 400, Short.MAX_VALUE)
```

```
);
```

```
layout.setVerticalGroup(
```

```
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
        .addGap(0, 300, Short.MAX_VALUE)
```

```
);
```

```
pack();
```

Layout Manager do JFrame ajusta o tamanho da tela (Frame) com base em seus componentes internos

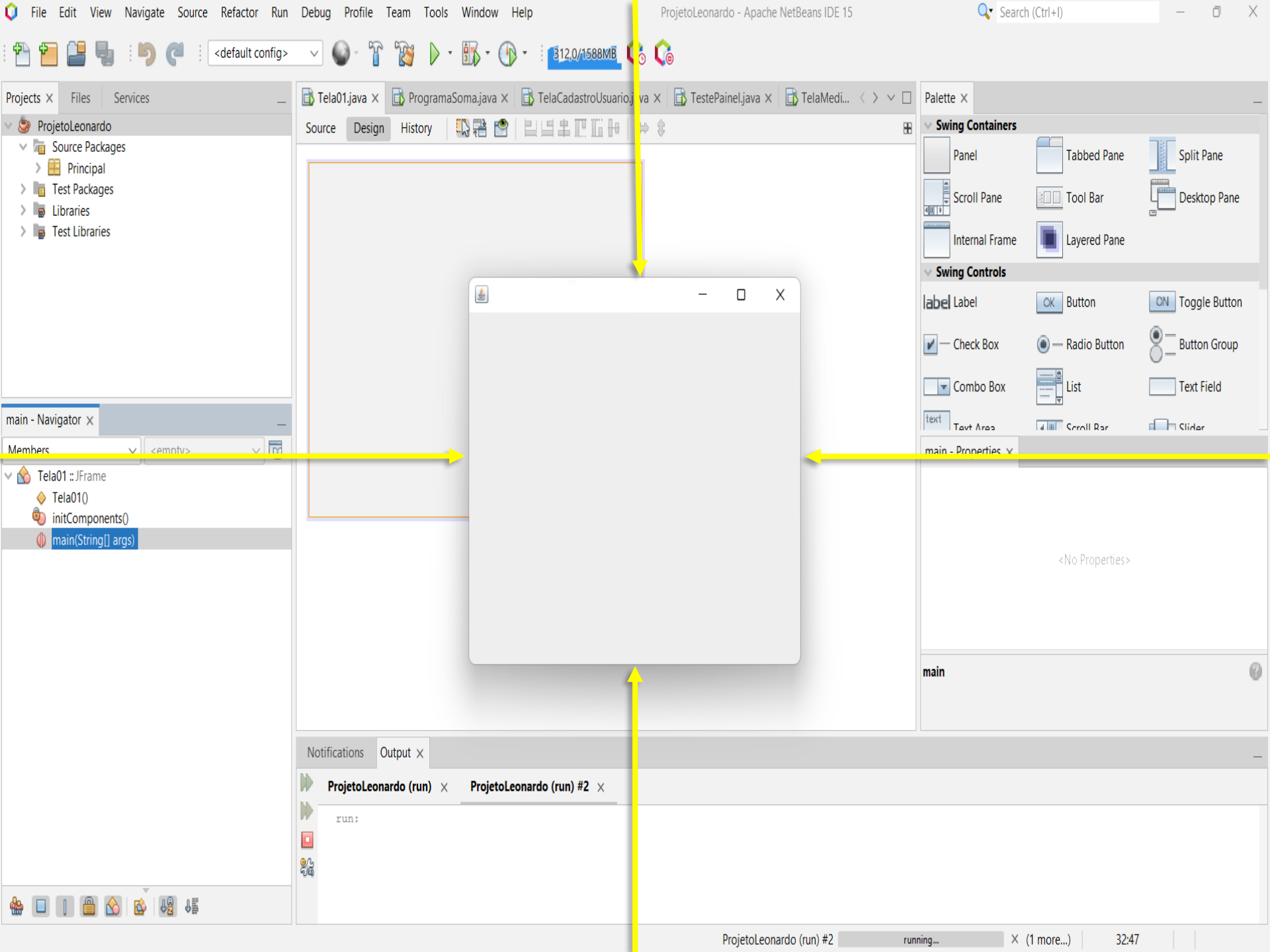
Configurações de Layout do JFrame

```
} // </editor-fold>
```

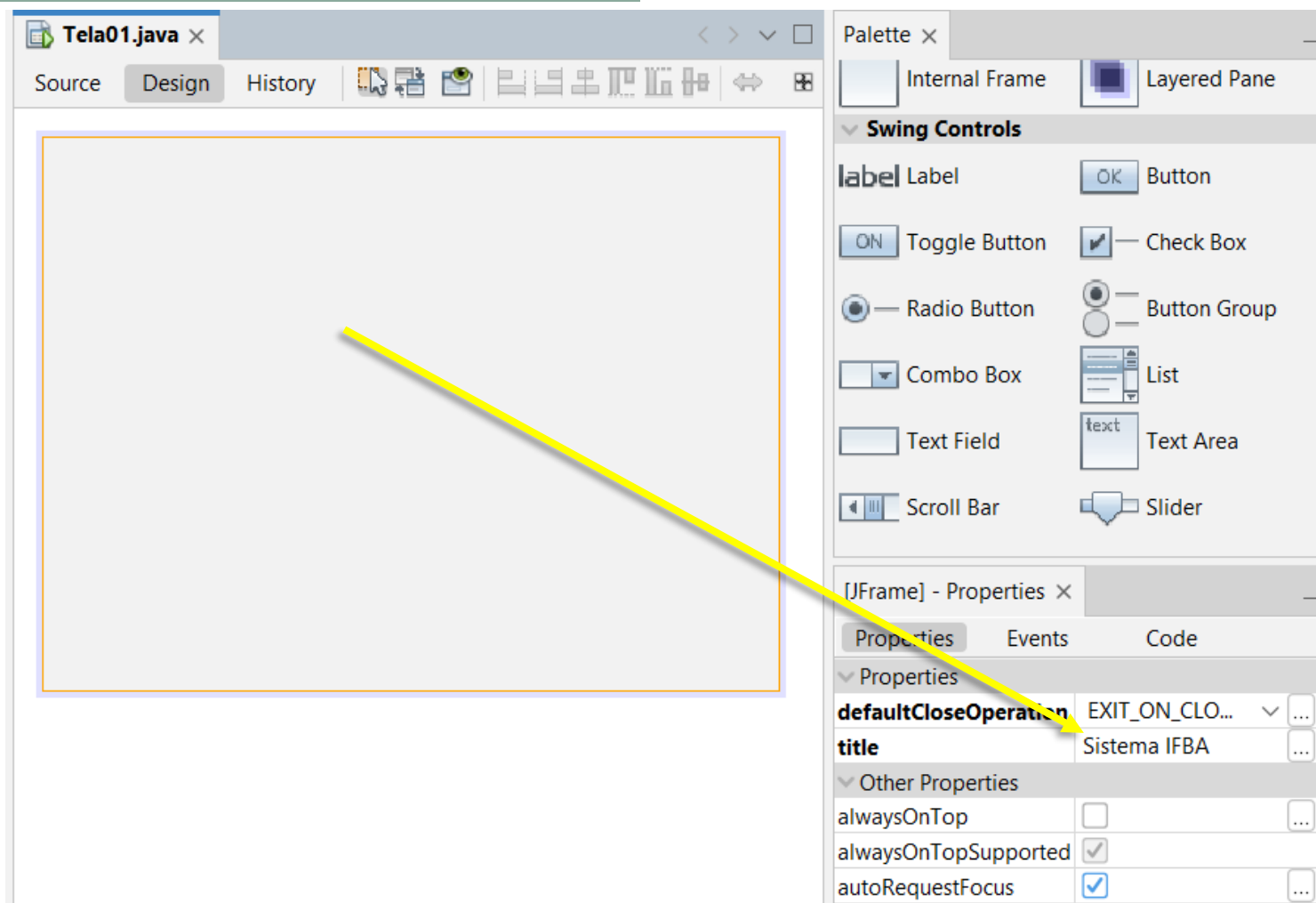
Netbeans: Centralizar JFrame

```
public Tela01 () {  
    initComponents () ;  
    this.setLocationRelativeTo (null) ;  
}
```

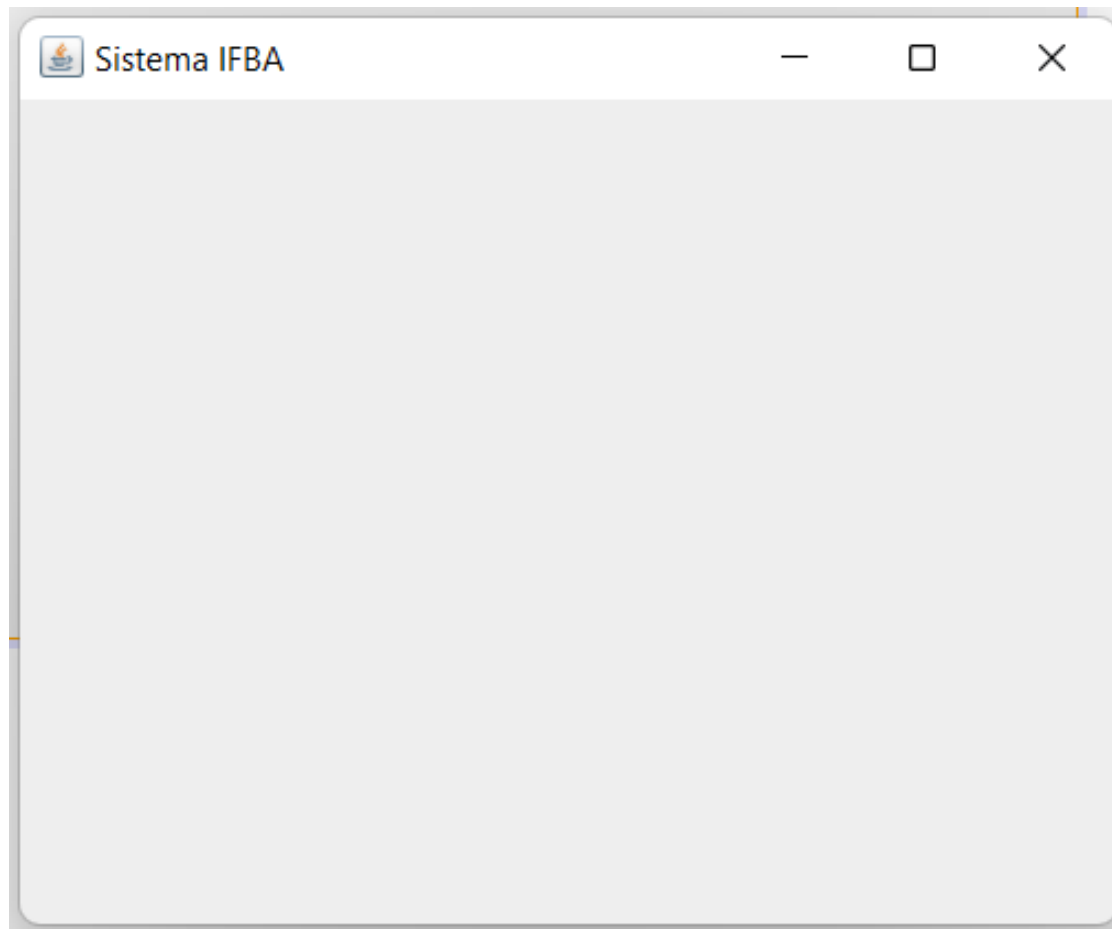




Netbeans: Título da Janela (JFrame)



Netbeans: Título da Janela (JFrame)



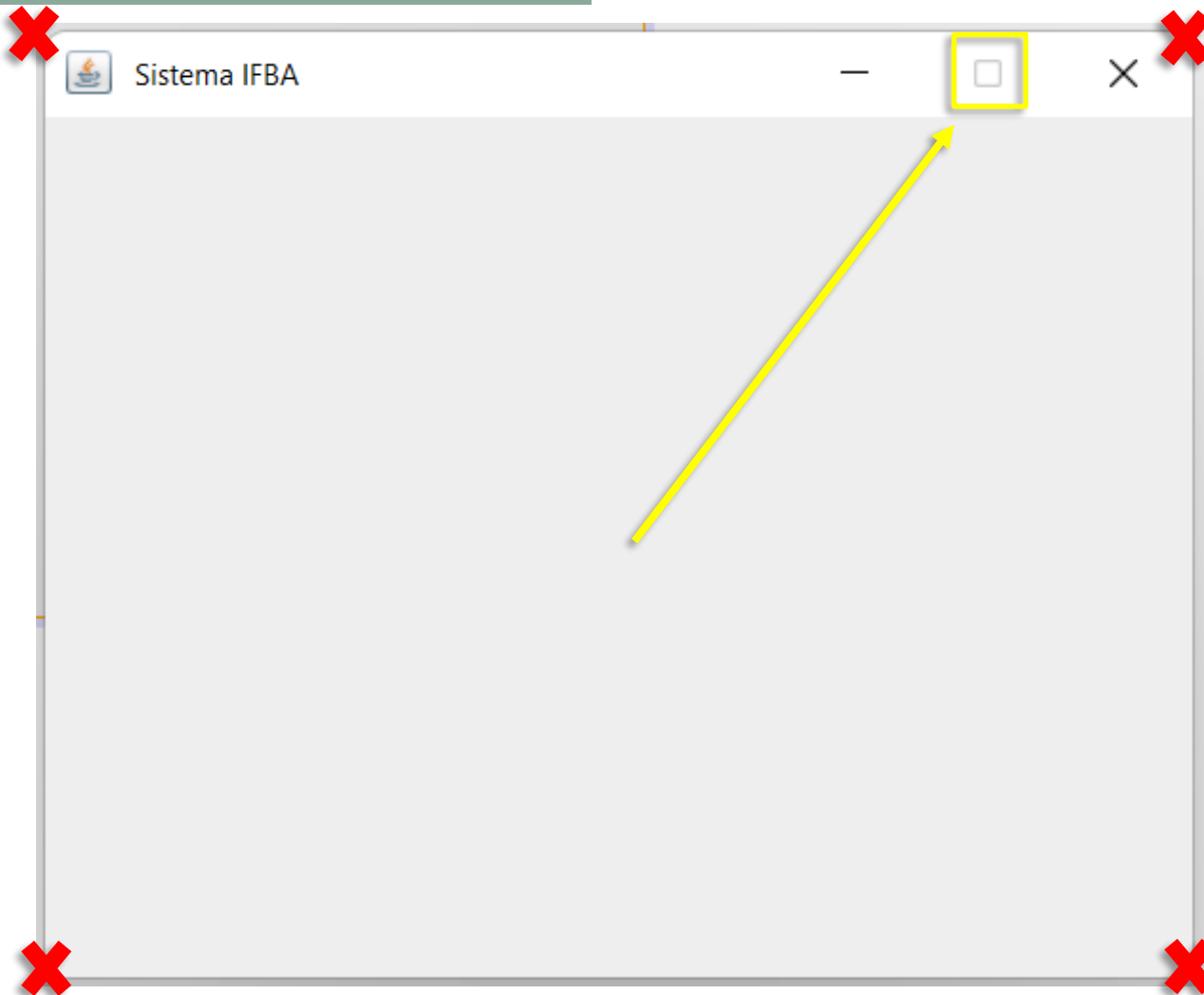
Netbeans: Desabilitar Redimensionar

[JFrame] - Properties X

Properties	Events	Code
preferredSize		[395, 300]
resizable	<input type="checkbox"/>	
shape		<none>
size		<Not Set>
state		0
type		NORMAL

False

Netbeans: Desabilitar Redimensionar

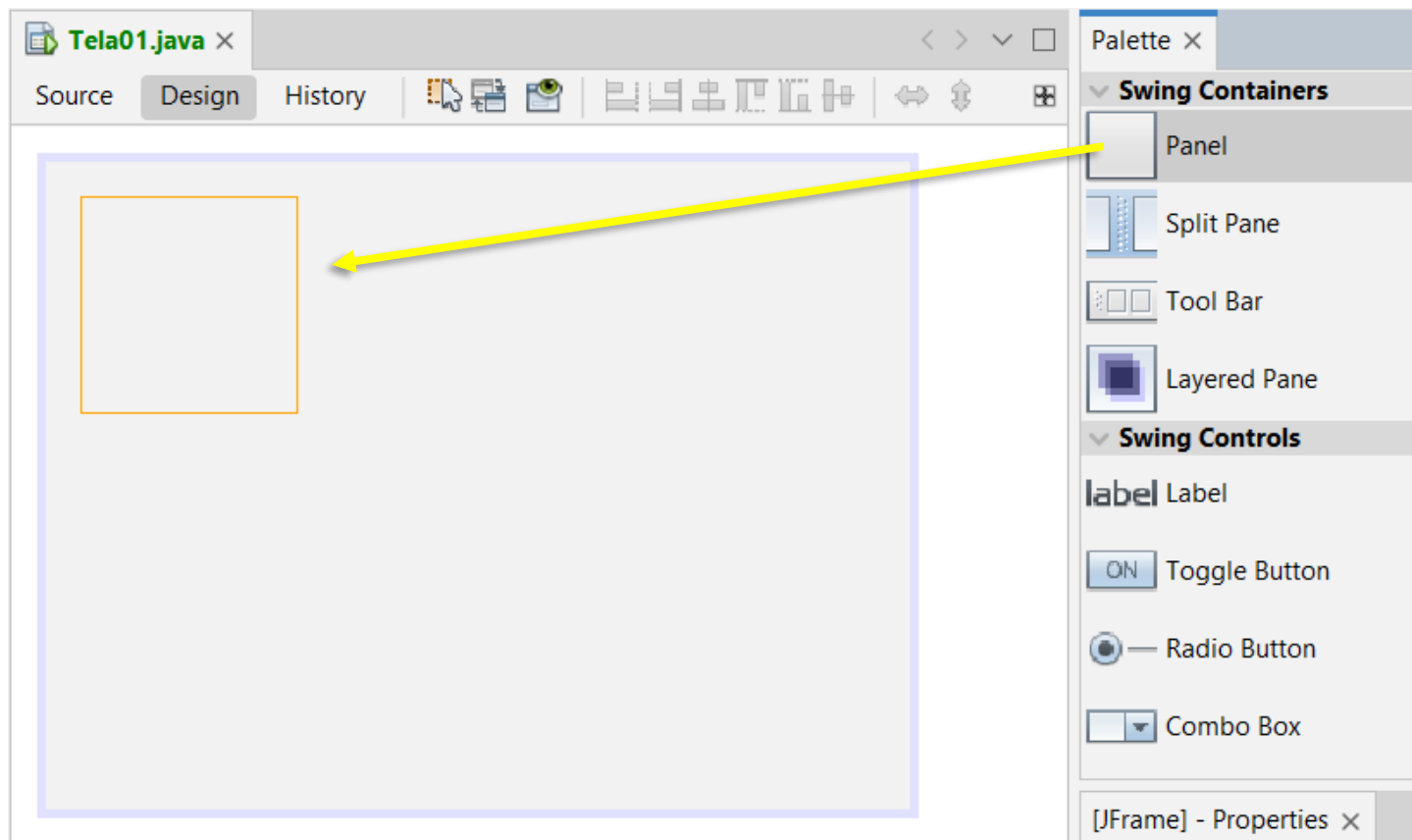


Java Swing – JPanel

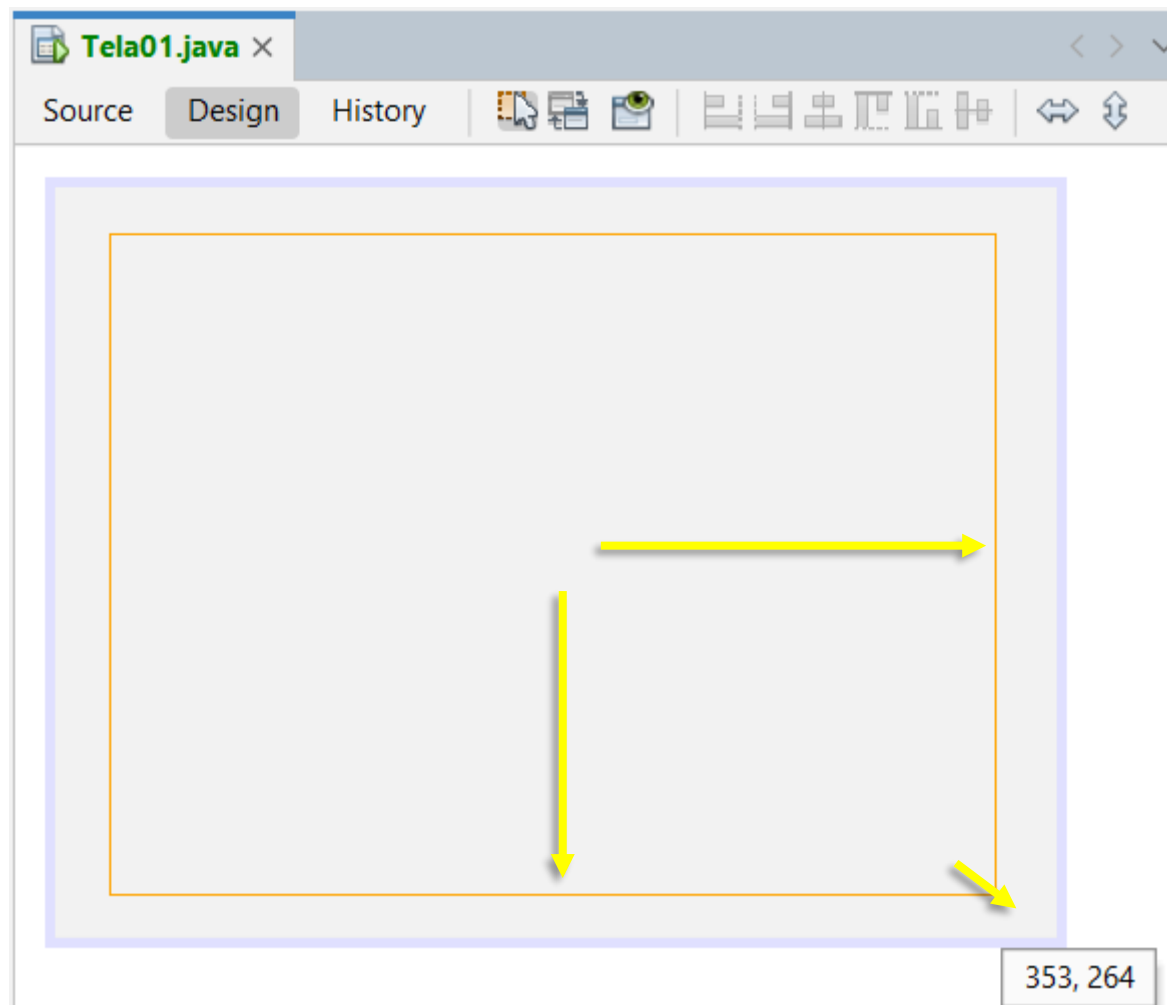
- O **JPanel** é um **contêiner flexível** no Java Swing, utilizado para **agrupar e organizar componentes** em interfaces gráficas.
- Ele **oferece opções de personalização**, como **layout e cor de fundo**, permitindo criar **interfaces atraentes e adaptáveis**.



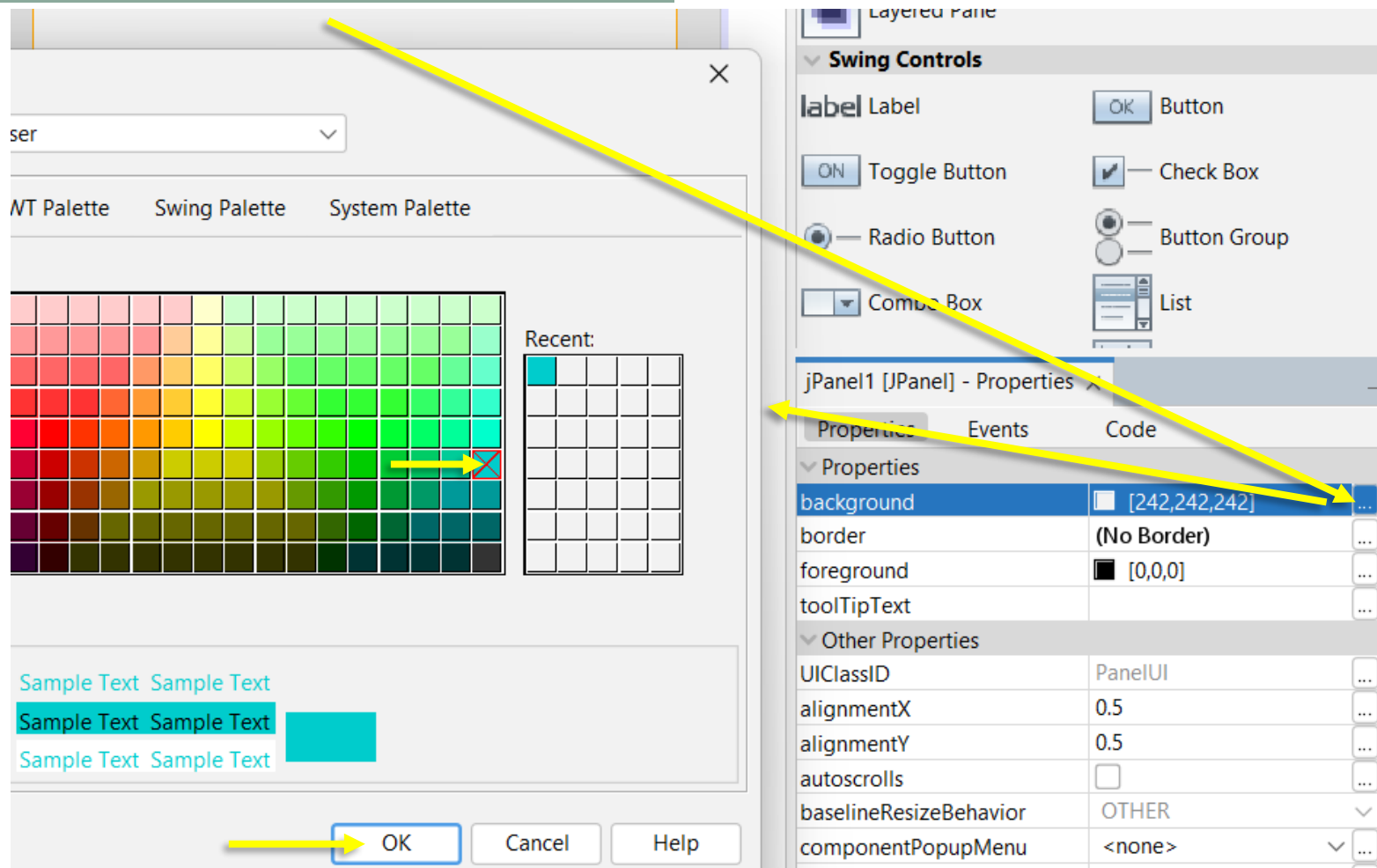
Java Swing – JPanel - Adicionar



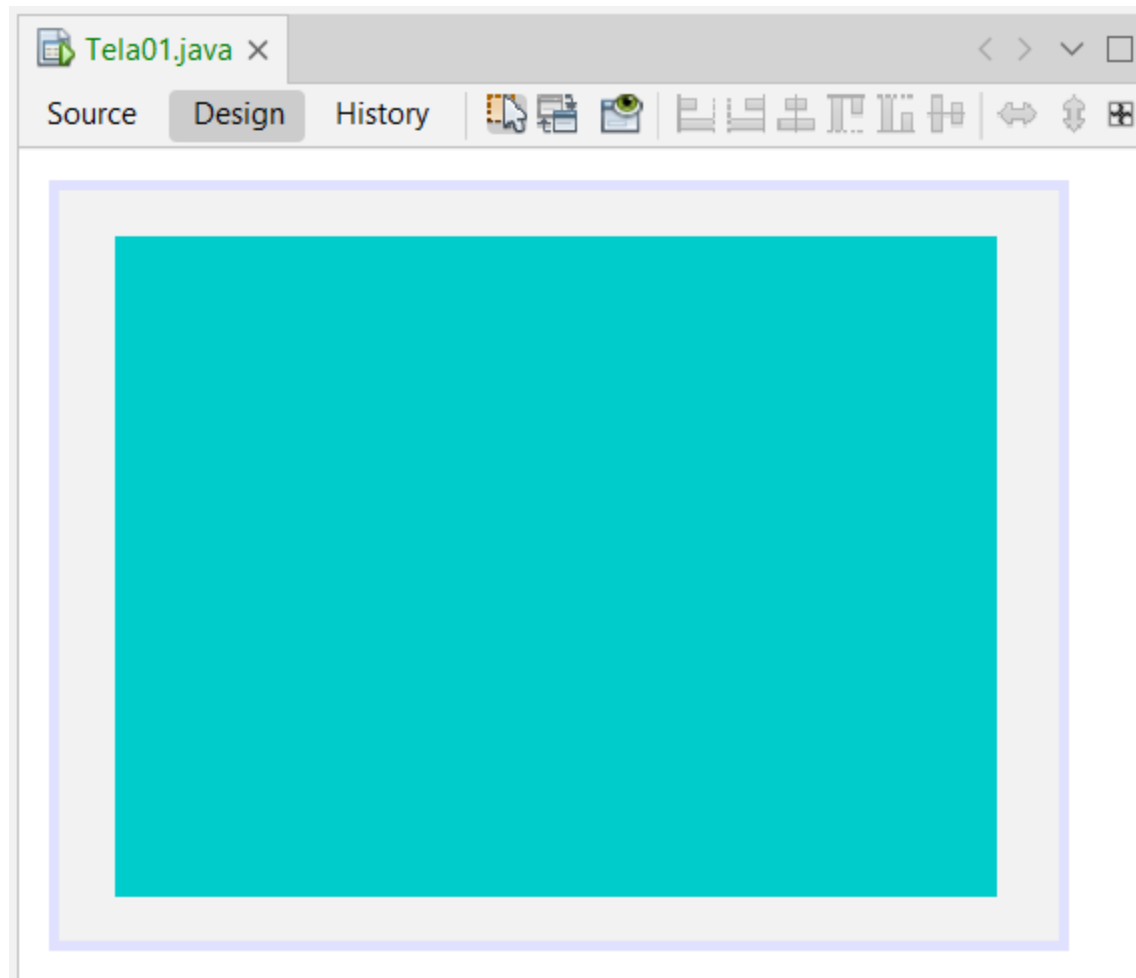
Java Swing – JPanel - Redimensionar



Java Swing – JPanel – Mudar Cor Fundo



Java Swing – JPanel – Mudar Cor Fundo

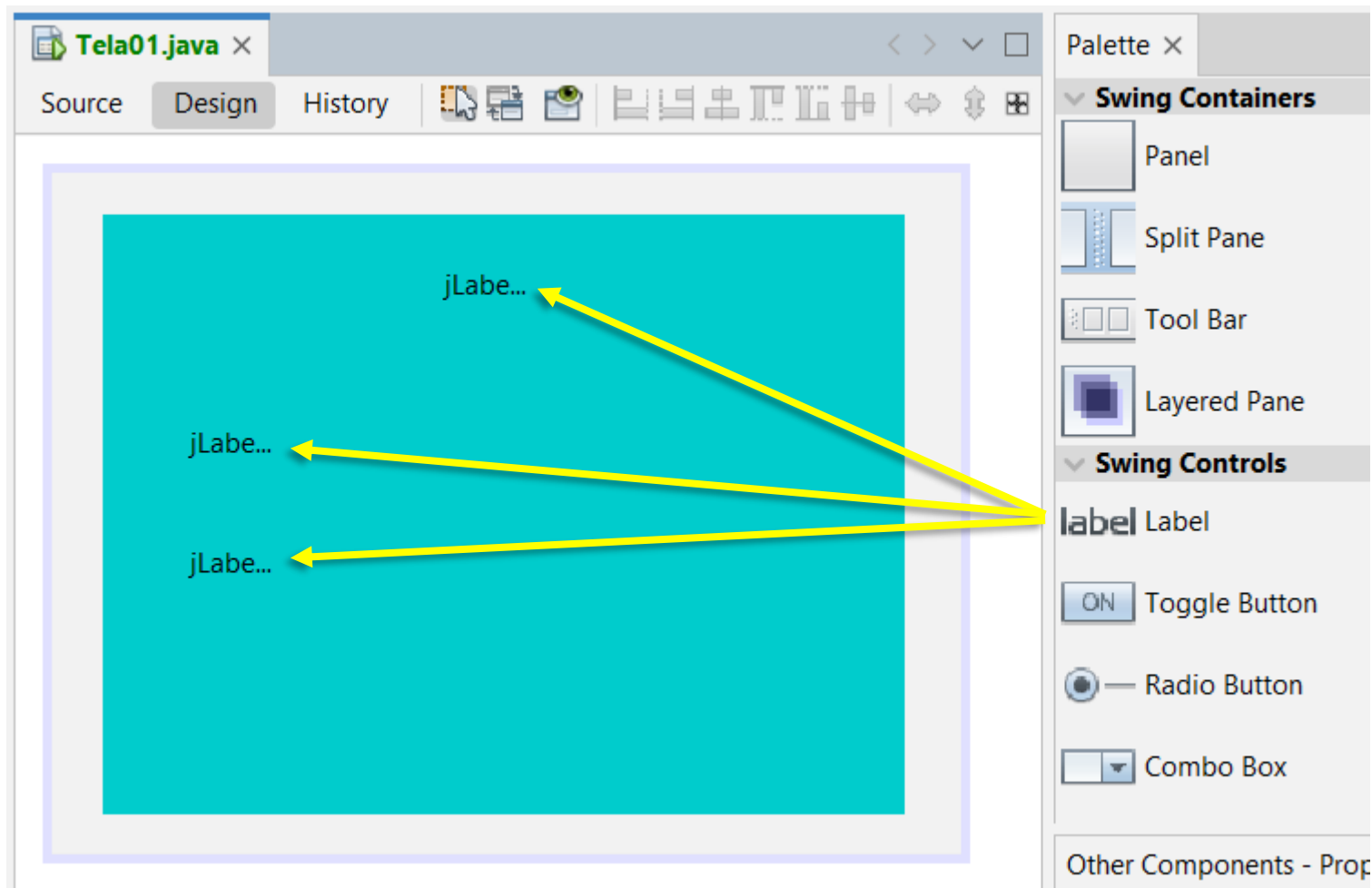


Java Swing – JLabel

- A classe **JLabel** permite **definir um texto** que **pode ser adicionado** a um **outro componente** (frame, painel etc.).
- Podem ser definidas várias **propriedades** para esse texto, tais como **alinhamento**, **tipo de letra**, **tamanho**, **cor** etc.



Java Swing – JLabel – Adicionar



Java Swing – JLabel – Editor Texto

The screenshot shows the Java Swing IDE with the following components:

- Design View:** A light blue rectangular area representing the GUI. It contains a grey rectangular component labeled "Tela 01" at the top center. Below it, there are two labels, "jLabe...", partially visible.
- Palette:** A panel on the right side of the IDE showing various Swing components. It is divided into two sections: "Swing Containers" and "Swing Controls".
 - Swing Containers:** Panel, Split Pane, Tool Bar, Layered Pane, Tabbed Pane, Scroll Pane, Internal Frame.
 - Swing Controls:** label Label, Button (with an "OK" button icon).
- Properties Window:** A window titled "jLabel1 [JLabel] - Properties" is open. It has three tabs: "Properties", "Events", and "Code". The "Properties" tab is selected, showing a table of properties for the JLabel component.

Properties	Events	Code
icon		<none>
labelFor		<none>
text		Tela 01
toolTipText		

A yellow arrow points from the "Tela 01" text in the Properties window to the "Tela 01" component in the Design view.



Java Swing – JLabel – Editor Texto

The screenshot shows the Java Swing IDE with the following components:

- Design View:** A cyan rectangular area representing the GUI. It contains a grey rectangular component labeled "Tela 0...". Inside this component is a smaller grey rectangular component labeled "Mens...". Below the "Mens..." component is a label component labeled "jLabe...".
- Palette:** A panel on the right side of the IDE showing various Swing components. It is divided into two sections:
 - Swing Containers:** Panel, Split Pane, Tool Bar, Layered Pane, Tabbed Pane, Scroll Pane, Internal Frame.
 - Swing Controls:** label Label, OK Button.
- Properties Window:** A window titled "jLabel2 [JLabel] - Properties" with three tabs: Properties, Events, and Code. The Properties tab is active, showing the following properties:

Properties	Events	Code
icon		<none>
labelFor		<none>
text		Mensagem 1:
toolTipText		

A yellow arrow points from the "text" property in the Properties window to the "Mens..." component in the Design view.



Java Swing – JLabel – Editor Texto

The image shows a Java Swing GUI design in an IDE. The main window is titled "Tela01.java" and has tabs for "Source", "Design", and "History". The "Design" tab is active, showing a cyan-colored window with a vertical gray bar on the left. Two labels, both labeled "Mens...", are positioned on this bar. A yellow arrow points from the bottom "Mens..." label to the "text" property field in the "jLabel3 [JLabel] - Properties" window. The "Palette" window on the right shows "Swing Containers" (Panel, Split Pane, Tool Bar, Layered Pane, Tabbed Pane, Scroll Pane, Internal Frame) and "Swing Controls" (Label, Button). The "jLabel3 [JLabel] - Properties" window has tabs for "Properties", "Events", and "Code". The "Properties" tab is active, showing fields for "icon", "labelFor", "text", and "toolTipText". The "text" field is set to "Mensagem 2:".

Properties	Events	Code
icon		<none>
labelFor		<none>
text		Mensagem 2:
toolTipText		



Java Swing – JLabel – Aumentar Fonte

The image shows a Java Swing IDE interface with two main windows. The top window is a visual editor showing a label with the text "Tela 0...". A yellow arrow points from this label to the "jLabel1 [JLabel] - font" dialog box. The dialog box has a title bar with a close button. It contains a dropdown menu set to "Default editor". Below this is a checkbox labeled "Derive the font from the default font" which is unchecked. There are three columns: "Font:", "Font Style:", and "Size:". The "Font:" column has a list with "Segoe UI" selected. The "Font Style:" column has a list with "Plain" selected. The "Size:" column has a list with "24" selected. Below these columns is a "Preview" section with the text "The quick brown fox jumps over the lazy dog". At the bottom are "OK", "Cancel", and "Help" buttons. A yellow arrow points from the "OK" button to the "jLabel1 [JLabel] - Properties" window. This window has tabs for "Properties", "Events", and "Code". The "Properties" tab is active, showing a table of properties. The "font" property is highlighted in blue, and its value is "Segoe UI 12 Plain". A yellow arrow points from the "font" property value to the "jLabel1 [JLabel] - font" dialog box.

jLabel1 [JLabel] - font

Set **jLabel1's font** property using: Default editor

☐ Derive the font from the default font

Font:	Font Style:	Size:
Segoe UI	Plain	24
Segoe Print	Plain	14
Segoe Script	Bold	18
Segoe UI	Italic	24
Segoe UI Black	Bold Italic	36

Preview: The quick brown fox jumps over the lazy dog

OK Cancel Help

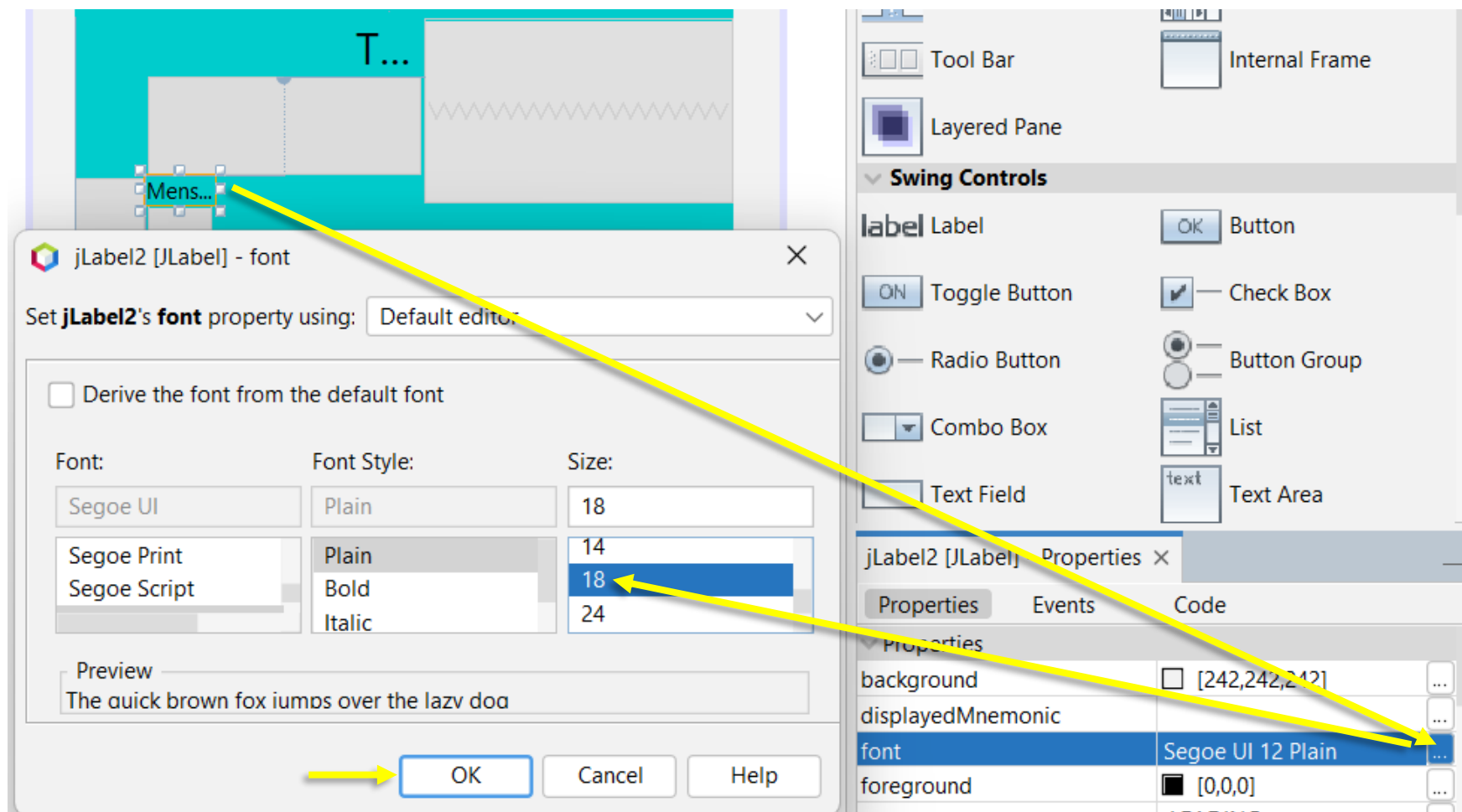
jLabel1 [JLabel] - Properties

Properties Events Code

Properties	
background	[242,242,242]
displayedMnemonic	
font	Segoe UI 12 Plain
foreground	[0,0,0]



Java Swing – JLabel – Aumentar Fonte



Java Swing – JLabel – Aumentar Fonte

The image shows a Java Swing IDE interface with two main windows. The top window is a visual editor showing a JLabel component with the text "Mens...". Below it is a "jLabel3 [JLabel] - font" dialog box. The dialog box has a dropdown menu set to "Default editor". It contains three sections: "Font:" with a list box showing "Segoe UI" and "Segoe Print"; "Font Style:" with a list box showing "Plain" and "Bold"; and "Size:" with a list box showing "18" and "24". A yellow arrow points from the "18" in the "Size:" list box to the "font" property in the "jLabel3 [JLabel] - Properties" window. The "jLabel3 [JLabel] - Properties" window has three tabs: "Properties", "Events", and "Code". The "Properties" tab is active, showing a table of properties. A yellow arrow points from the "font" property in the table to the "font" property in the "jLabel3 [JLabel] - font" dialog box. The "font" property is highlighted in blue in the table.

Font settings for JLabel3:

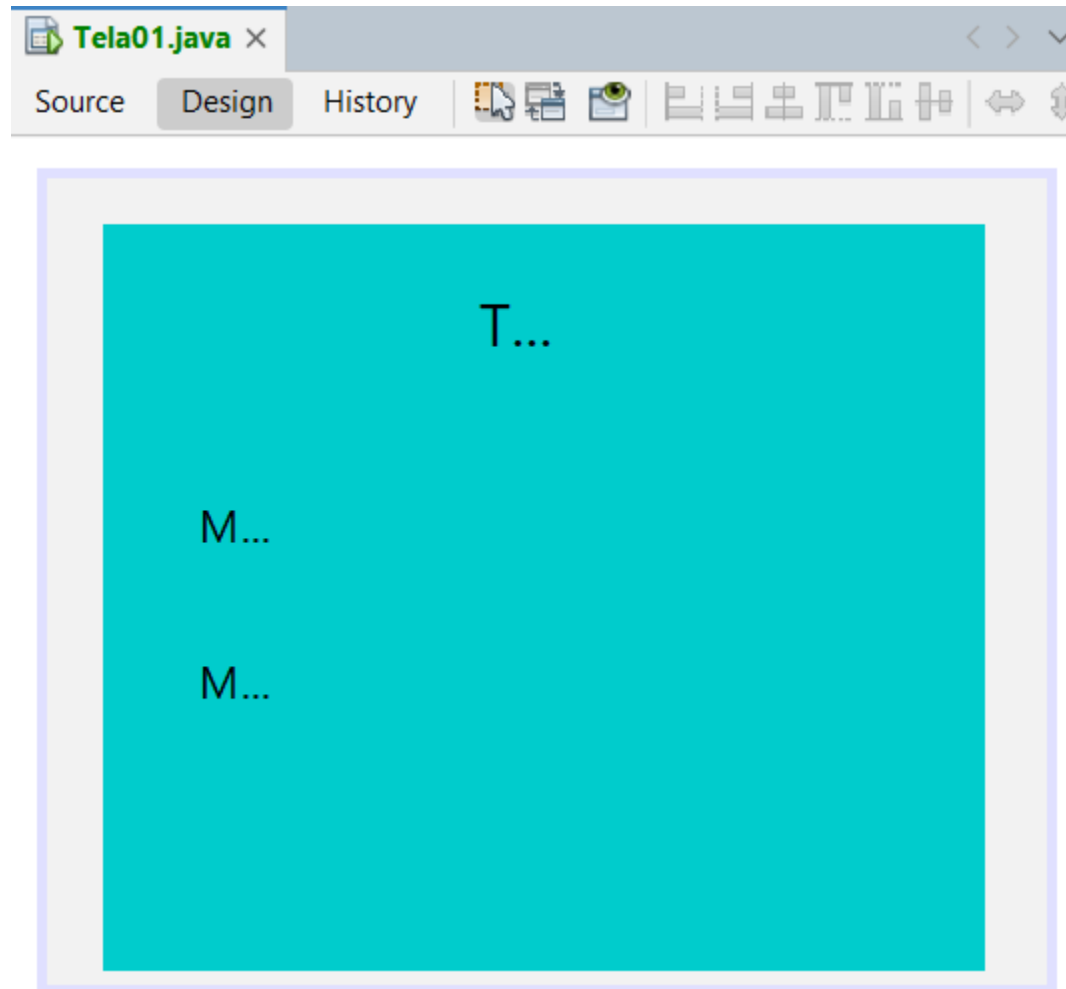
- Font: Segoe UI
- Font Style: Plain
- Size: 18

Properties for JLabel3 [JLabel]:

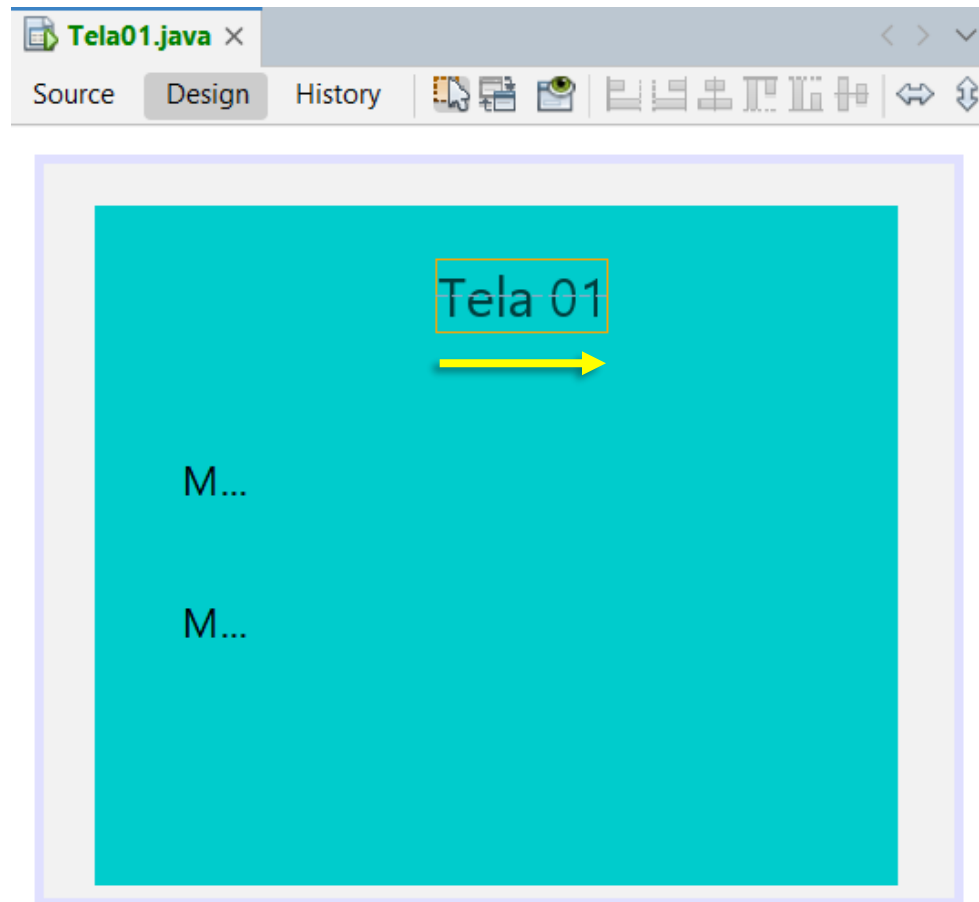
Property	Value
background	[242,242,242]
DisplayedMnemonic	
font	Segoe UI 12 Plain
foreground	[0,0,0]
horizontalAlignment	LEADING
icon	<none>



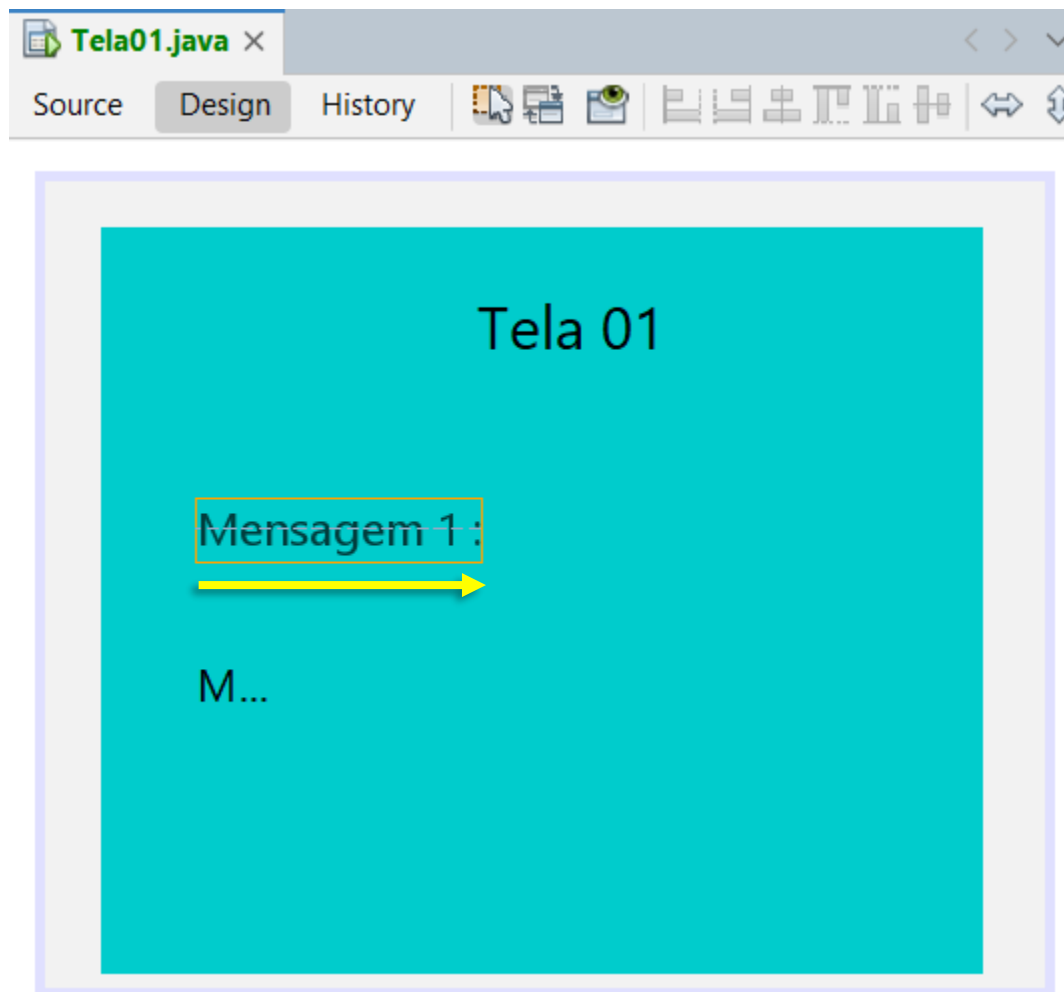
Java Swing – JLabel – Aumentar Fonte



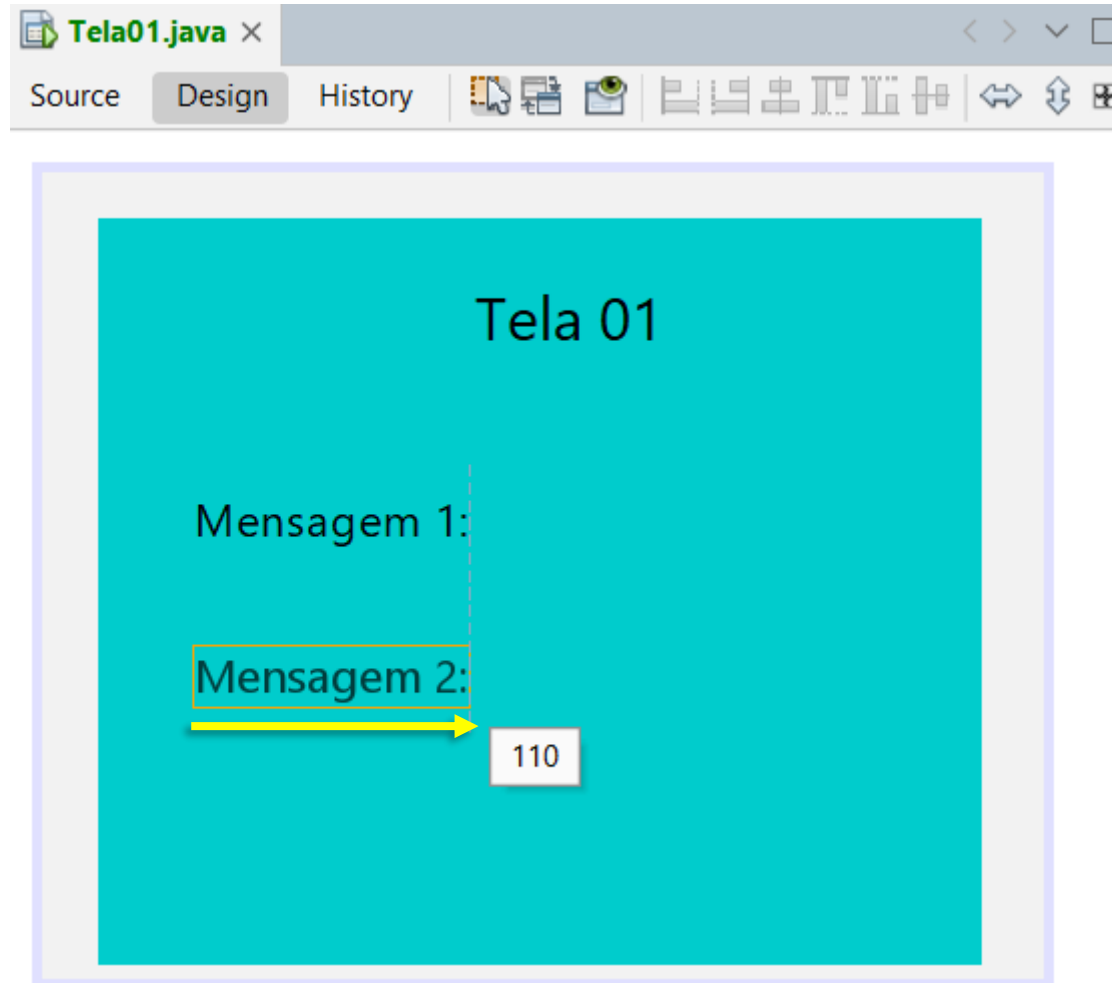
Java Swing – JLabel – Redimensionar



Java Swing – JLabel – Redimensionar



Java Swing – JLabel – Redimensionar

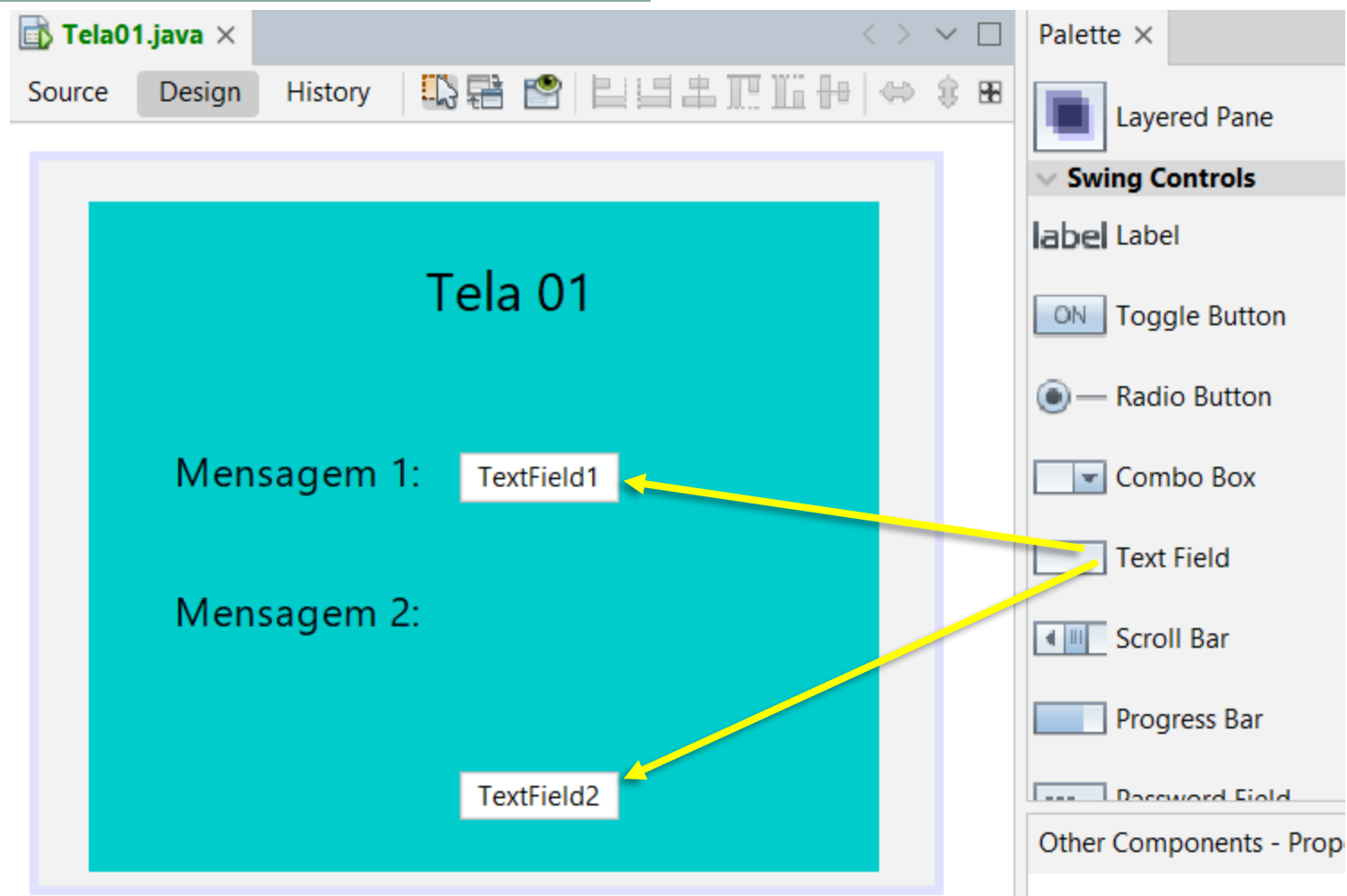


Java Swing – JTextField

- A classe **JTextField** permite criar uma **caixa de texto gráfica** na qual o usuário pode **digitar dados**.
- Existem **diversas propriedades** cujos **conteúdos podem ser modificados**.



Java Swing – JTextField – Adicionar



Java Swing – JTextField – Editor Texto

The screenshot displays an IDE window titled 'Tela01.java' with tabs for Source, Design, and History. The Design view shows a window titled 'Tela 01' with a cyan background. Inside, there are two labels: 'Mensagem 1:' and 'Mensagem 2:'. A text field, labeled 'TextField2', is positioned to the right of 'Mensagem 1:'. A yellow arrow points from the text field to the 'jTextField1 [JTextField] - Properties' panel on the right.

The 'jTextField1 [JTextField] - Properties' panel has three tabs: Properties, Events, and Code. The Properties tab is active, showing the following properties:

Property	Value	Action
foreground	[0,0,0]	...
horizontalAlignment	LEADING	...
text		...
toolTipText		...
Other Properties		
UI	<default>	...



Java Swing – JTextField – Editor Texto

The screenshot shows an IDE window titled 'Tela01.java' with tabs for Source, Design, and History. The Design view displays a window titled 'Tela 01' with a cyan background. It contains two labels, 'Mensagem 1:' and 'Mensagem 2:', and a text field. A yellow arrow points from the text field to the 'text' property in the Properties window.

Palette

- Layered Pane
- Swing Controls**
 - Label
 - Toggle Button
 - Radio Button
 - Combo Box
 - Button
 - Check Box
 - Button Group
 - List

jTextField2 [JTextField] - Properties

Properties	Events	Code
foreground		[0,0,0]
horizontalAlignment		LEADING
text		
toolTipText		
Other Properties		
UI		<default>



Java Swing – JTextField – Renomear Var.

The screenshot shows an IDE window titled 'Tela01.java' with tabs for Source, Design, and History. The Design view displays a window titled 'Tela 01' with a cyan background. It contains two labels, 'Mensagem 1:' and 'Mensagem 2:', each followed by a text field. A yellow arrow points from the 'Mensagem 1:' label to the 'txtMensagem1 [JTextField] - Properties' panel on the right. The panel shows the 'Code' tab with the following table:

Code Generation	
Bean Class	class javax.swing.JTextField
Variable Name	txtMensagem1
Variable Modifiers	private
Type Parameters	
Use Local Variable	<input type="checkbox"/>



Java Swing – JTextField – Renomear Var.

The image shows a screenshot of an IDE window titled 'Tela01.java'. The 'Design' tab is active, displaying a graphical user interface for a window titled 'Tela 01'. The UI contains two labels, 'Mensagem 1:' and 'Mensagem 2:', each followed by a text input field. A yellow arrow points from the 'Mensagem 2:' text input field to the 'Code' tab of the 'jTextField2 [JTextField] - Properties' palette on the right.

The 'Palette' on the right shows 'Swing Controls' including Label, Button, Toggle Button, Check Box, Radio Button, Button Group, Combo Box, and List. Below this, the 'jTextField2 [JTextField] - Properties' palette is open, showing the 'Code' tab. The 'Code Generation' section is visible, with the following table:

Code Generation	
Bean Class	class javax.swing.JTextField
Variable Name	txtMensagemFinal
Variable Modifiers	private
Type Parameters	
Use Local Variable	<input type="checkbox"/>



Java Swing – JTextField – Aument. Fonte

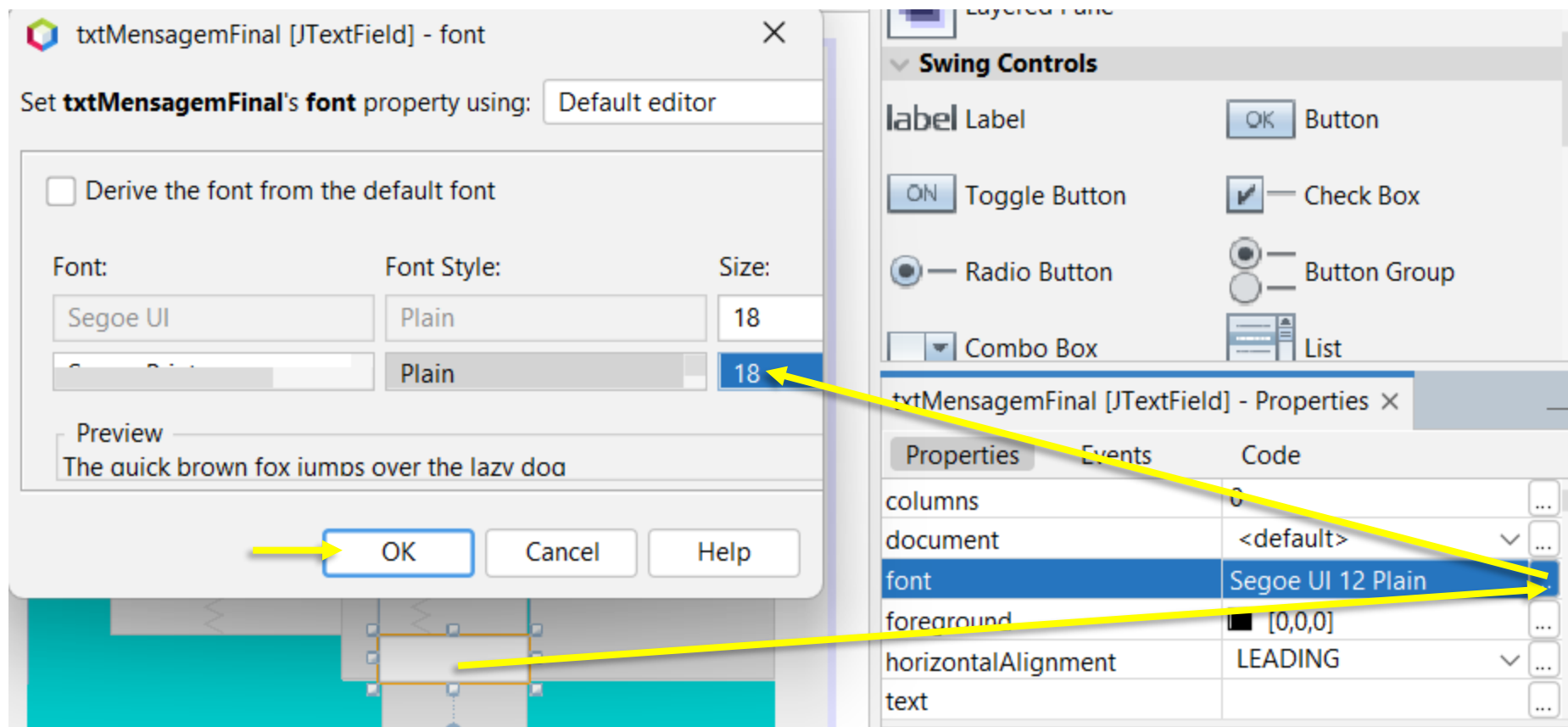
The image shows a Java Swing IDE interface with a text field component labeled "Mensagem 1:". The "txtMensagem1 [JTextField] - font" dialog is open, showing the font settings. The font is set to "Segoe UI", style is "Plain", and size is "18". The "OK" button is highlighted with a yellow arrow.

The "txtMensagem1 [JTextField] - Properties" window is also open, showing the "font" property set to "Segoe UI 12 Plain". A yellow arrow points from the "font" property in the Properties window to the font size in the font dialog.

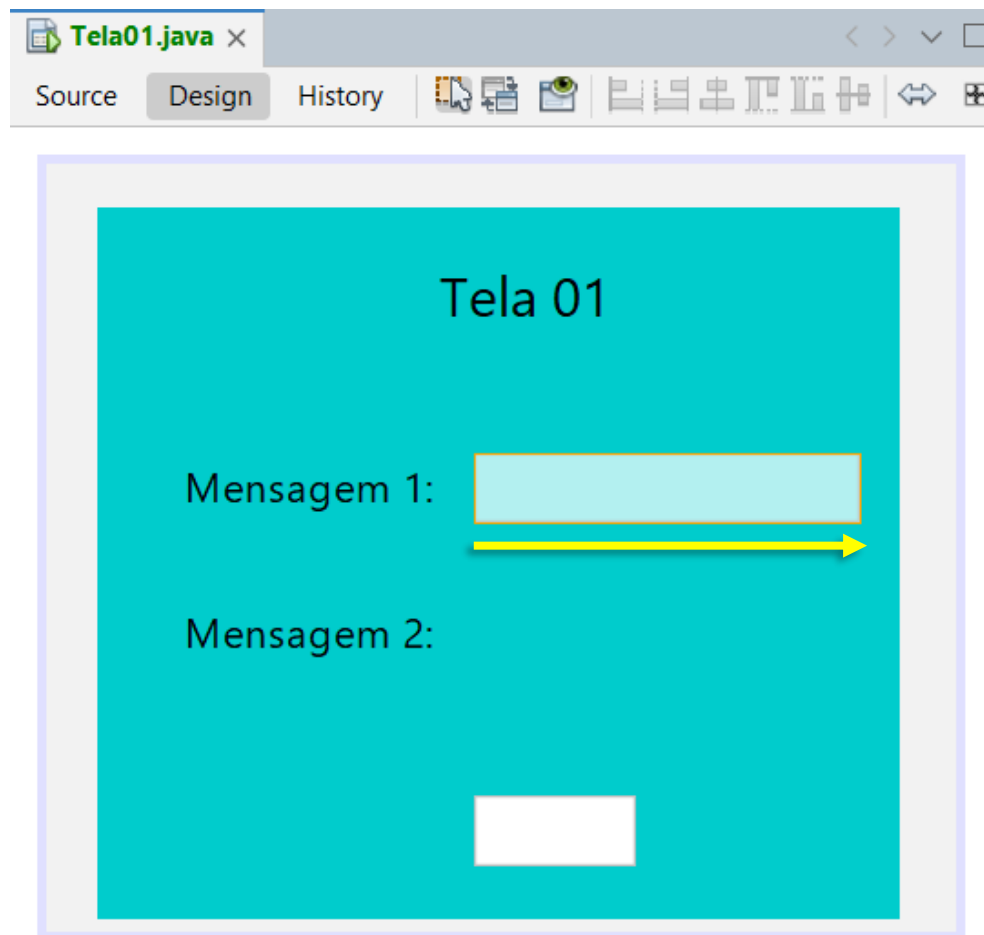
The "font" property in the Properties window is also highlighted with a yellow arrow, pointing to the "font" property in the Properties window.



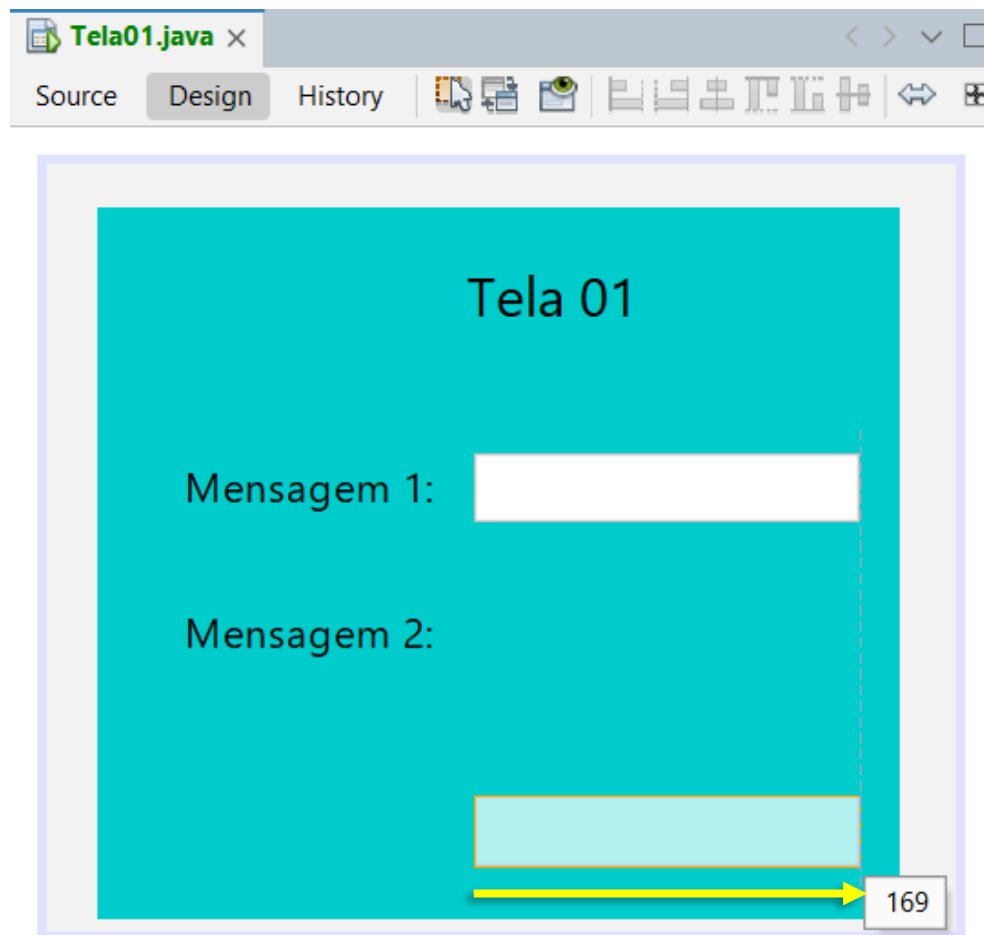
Java Swing – JTextField – Aument. Fonte



Java Swing – JTextField – Redimens.



Java Swing – JTextField – Redimens.



Java Swing – JTextField – Não Editável

The screenshot shows an IDE window titled 'Tela01.java' with tabs for Source, Design, and History. The Design view displays a window titled 'Tela 01' with a cyan background. It contains two labels, 'Mensagem 1:' and 'Mensagem 2:', each followed by a text field. The text field for 'Mensagem 2:' is highlighted with a yellow box. A yellow arrow points from this text field to the 'editable' property in the Properties panel, which is set to false.

Palette ×

- Radio Button
- Button Group
- Combo Box
- List
- Text Field
- Text Area
- Scroll Bar
- Slider
- Progress Bar
- Formatted Field
- Password Field
- Spinner
- Separator
- Text Pane

txtMensagemFinal [JTextField] - Properties ×

Properties	Events	Code
editable		<input type="checkbox"/>
background		<input type="checkbox"/> [242,242,242]
columns		0

editable

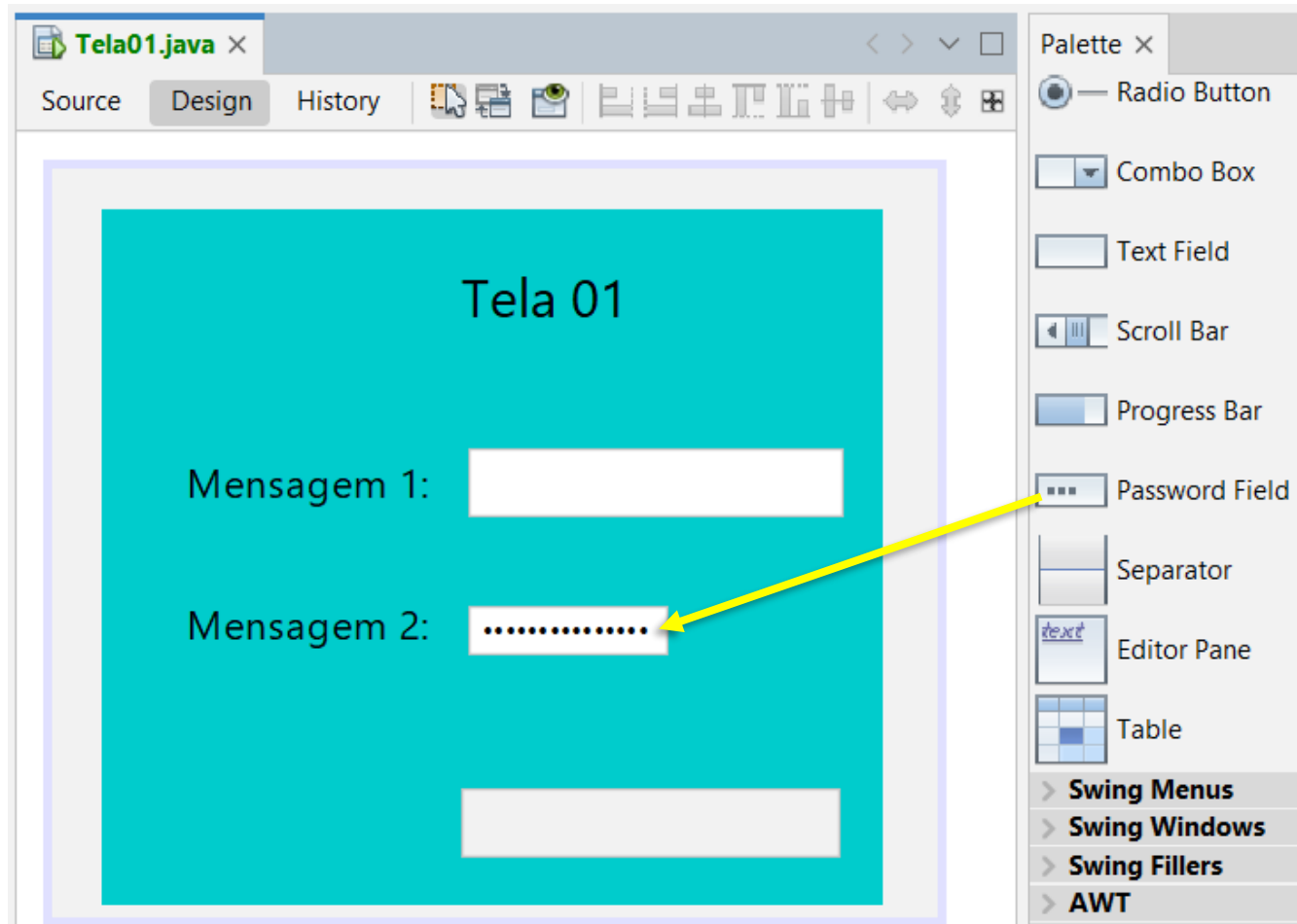


Java Swing – JPasswordField

- A classe **JPasswordField** permite criar uma **caixa de texto gráfica** na qual o usuário pode **digitar dados**, porém eles são substituídos (visualmente) por outro caractere (*).



Java Swing – JPasswordField – Adic.



Java Swing – JPasswordField – Editor T.

The screenshot displays the NetBeans IDE interface for a Java Swing application. The main window, titled "Tela 01", has a cyan background. It contains two labels, "Mensagem 1:" and "Mensagem 2:", each followed by a text field. The second text field is a `JPasswordField`, which is highlighted by a yellow arrow pointing to its `toolTipText` property in the Properties window. The Properties window shows the following properties for `JPasswordField1 [JPasswordField]`:

Properties	Events	Code
foreground		[0,0,0]
horizontalAlignment		LEADING
text		
toolTipText		

The Palette window on the right shows various Swing components, including Radio Button, Combo Box, Text Field, Password Field, Scroll Bar, Progress Bar, Separator, Button Group, List, Text Area, Slider, Formatted Field, Spinner, and Text Pane.



Java Swing – JPasswordField – Ren. Var.

The screenshot shows an IDE window titled 'Tela01.java' with a 'Design' tab selected. The design view shows a window titled 'Tela 01' with a cyan background. Inside the window, there are two labels: 'Mensagem 1:' and 'Mensagem 2:'. Below 'Mensagem 2:', there is a JPasswordField component. A yellow arrow points from the JPasswordField to the 'txpMensagem2 [JPasswordField] - Properties' window. The Properties window shows the 'Code' tab with the following information:

Code Generation	
Bean Class	class javax.swing.JPassword...
Variable Name	txpMensagem2
Variable Modifiers	private

Below the table, the text 'txpMensagem2 [JPasswordField]' is displayed.



Java Swing – JPasswordField – Aum. F.

The screenshot displays the Java Swing IDE interface. A dialog box titled "txpMensagem2 [JPasswordField] - font" is open, showing the font configuration for the selected component. The dialog has a "Font" section with "Segoe UI" selected, a "Font Style" section with "Plain" selected, and a "Size" section with "18" selected. The "OK" button is highlighted with a yellow arrow. Below the dialog, a preview of the component shows the text "Mensagem 2:" and a password field. A yellow arrow points from the "OK" button to the "font" property in the "txpMensagem2 [JPasswordField] - Properties" window. The "font" property is set to "Segoe UI 12 Plain".

Font configuration details:

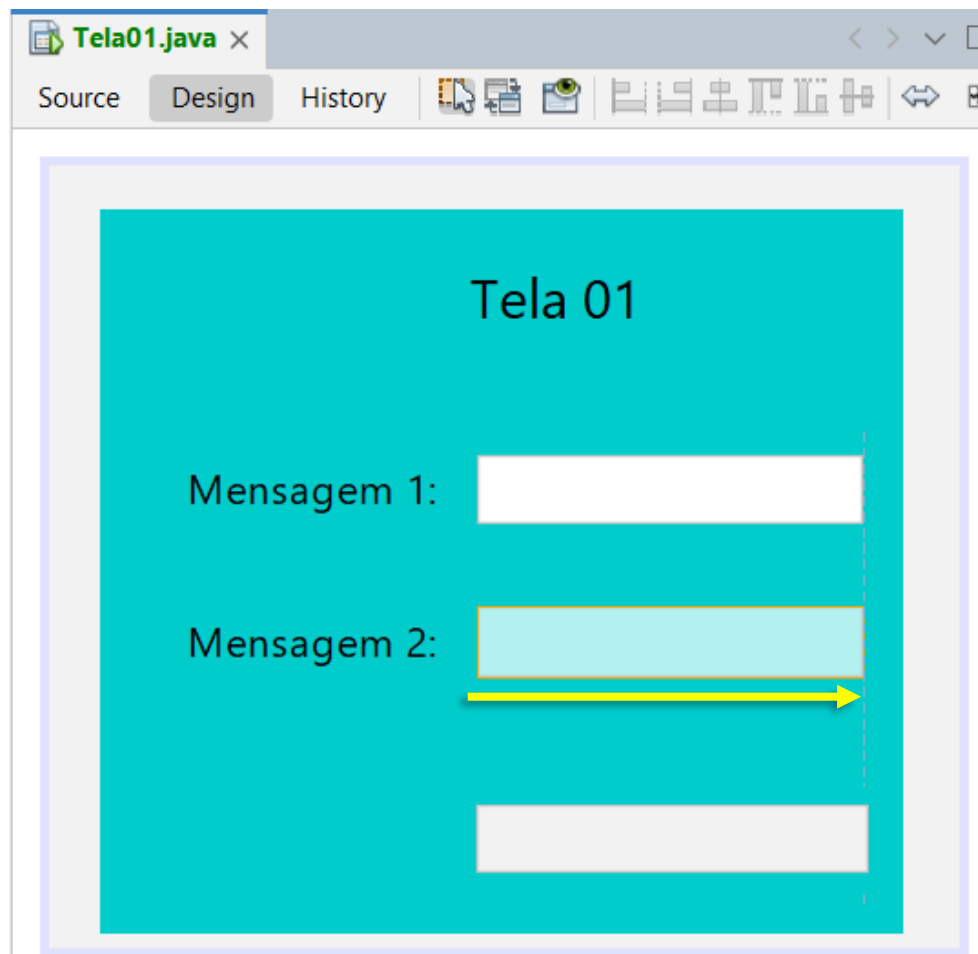
Font	Font Style	Size
Segoe UI	Plain	18

Properties window details:

Property	Value
columns	0
document	<default>
font	Segoe UI 12 Plain
foreground	[0,0,0]



Java Swing – JPasswordField – Redimen.

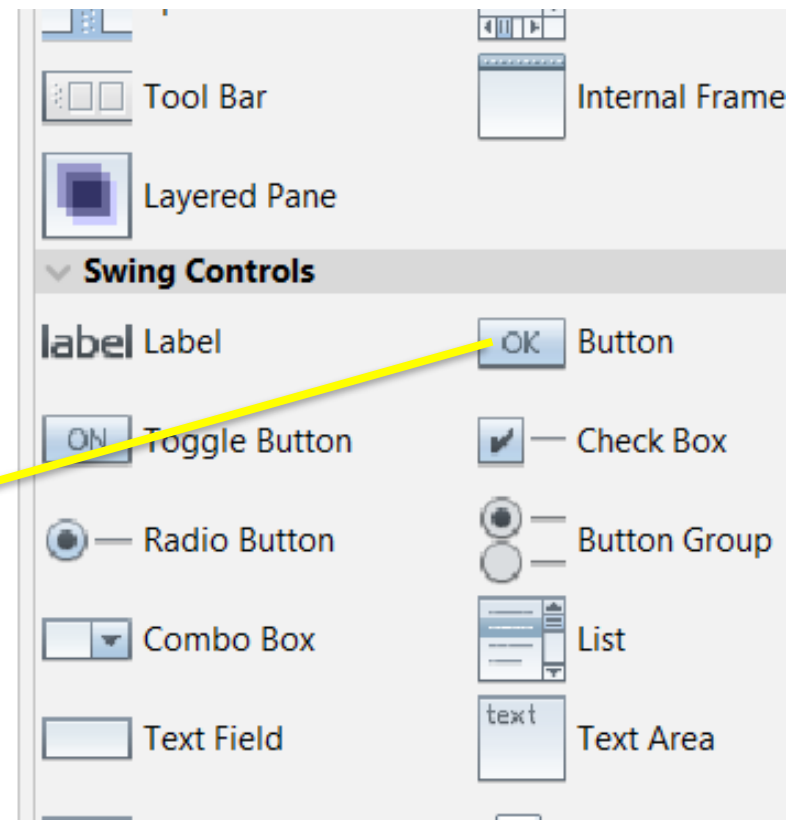
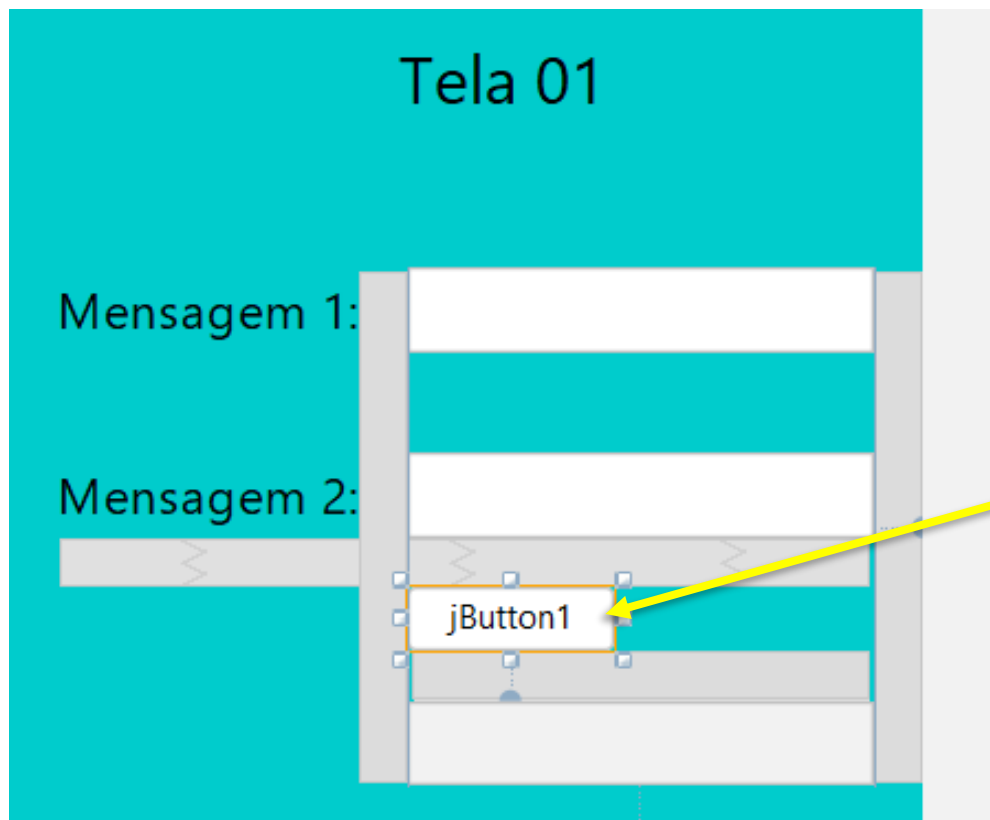


Java Swing – JButton

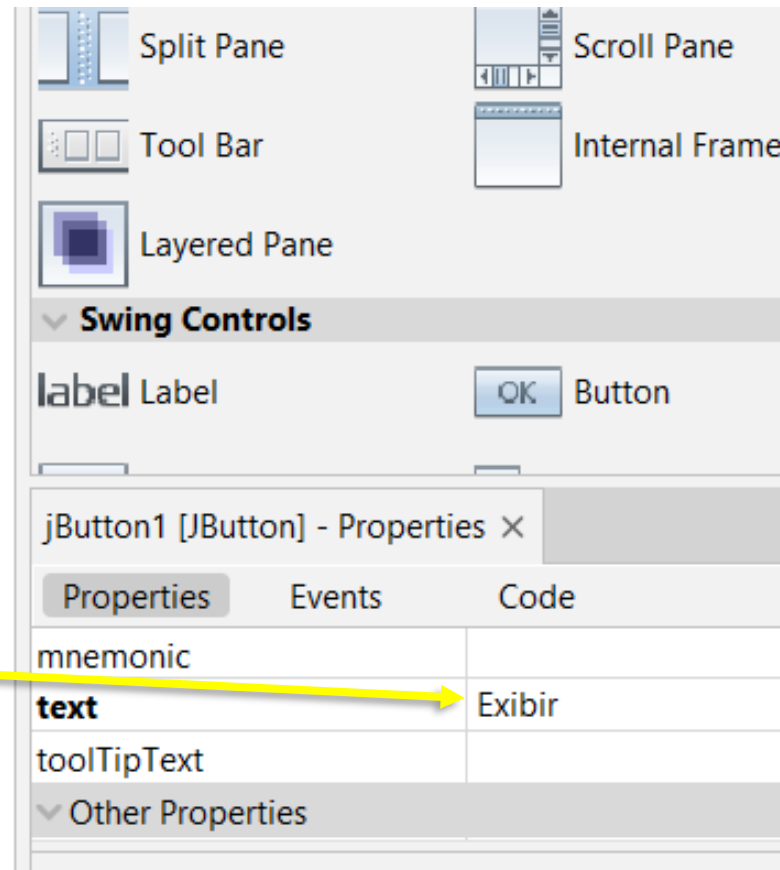
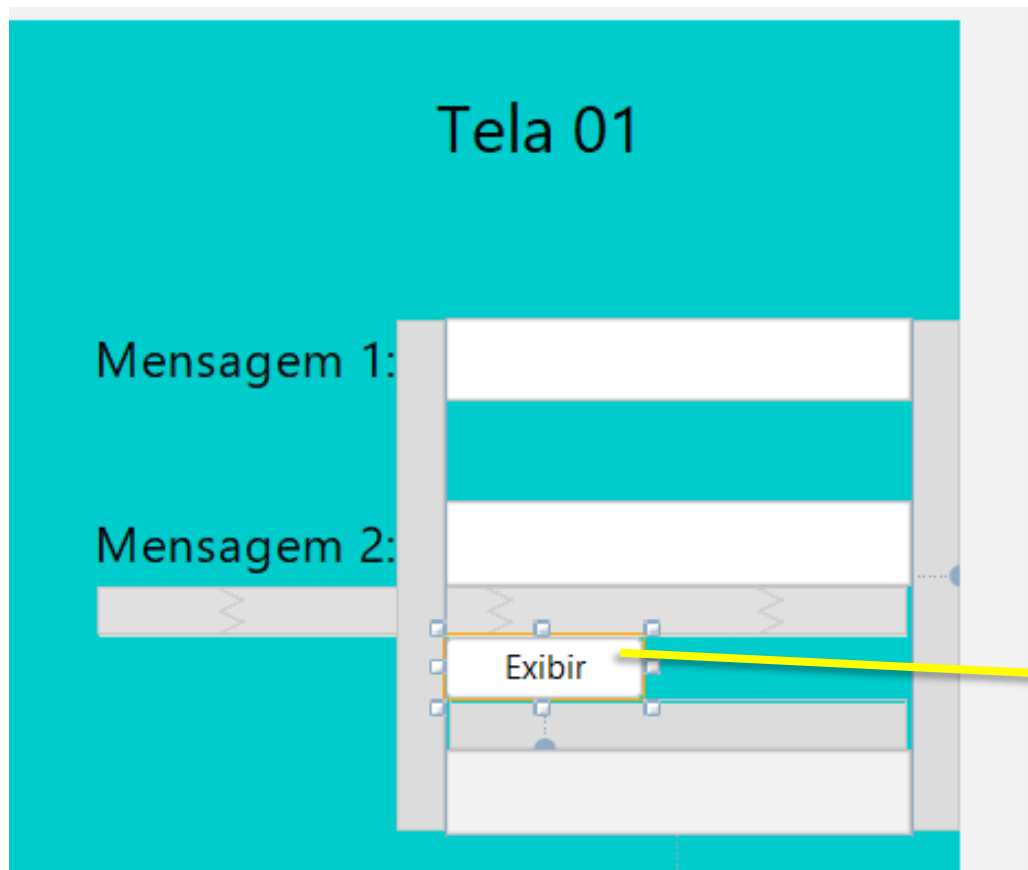
- A classe **JButton** permite **definir botões gráficos** que **pode ser adicionados** a um **outro componente** (frame, painel etc.).
- Um **botão** pode **ser criado** com apenas um **texto e/ou com ícones** para tornar o ambiente mais intuitivo.



Java Swing – JButton – Adicionar



Java Swing – JButton – Editor Texto



Java Swing – JButton – Aumentar Fonte

The image shows a Java Swing IDE interface with two main windows. The left window is titled "jButton1 [JButton] - font" and contains a "Default editor" tab. It has a checkbox "Derive the font from the default font" which is unchecked. Below this are three fields: "Font:" with "Segoe UI", "Font Style:" with "Plain", and "Size:" with "18". A "Preview" section shows the text "The quick brown fox jumps over the lazy dog" in the selected font. At the bottom are "OK", "Cancel", and "Help" buttons. A yellow arrow points from the "OK" button to the "font" property in the right window. The right window is titled "jButton1 [JButton] - Properties" and has three tabs: "Properties", "Events", and "Code". The "Properties" tab is active, showing a list of properties. The "font" property is highlighted in blue, and its value is "Segoe UI 12 Plain". A yellow arrow points from the "font" property value to the "font" field in the left window. The background shows a partial view of a Swing container with a button labeled "Exibir".

Set **jButton1**'s **font** property using: Default editor

☐ Derive the font from the default font

Font: Segoe UI Font Style: Plain Size: 18

Preview
The quick brown fox jumps over the lazy dog

OK Cancel Help

Swing Containers

- Panel
- Split Pane
- Tool Bar
- Layered Pane
- Tabbed Pane
- Scroll Pane
- Internal Frame

Swing Controls

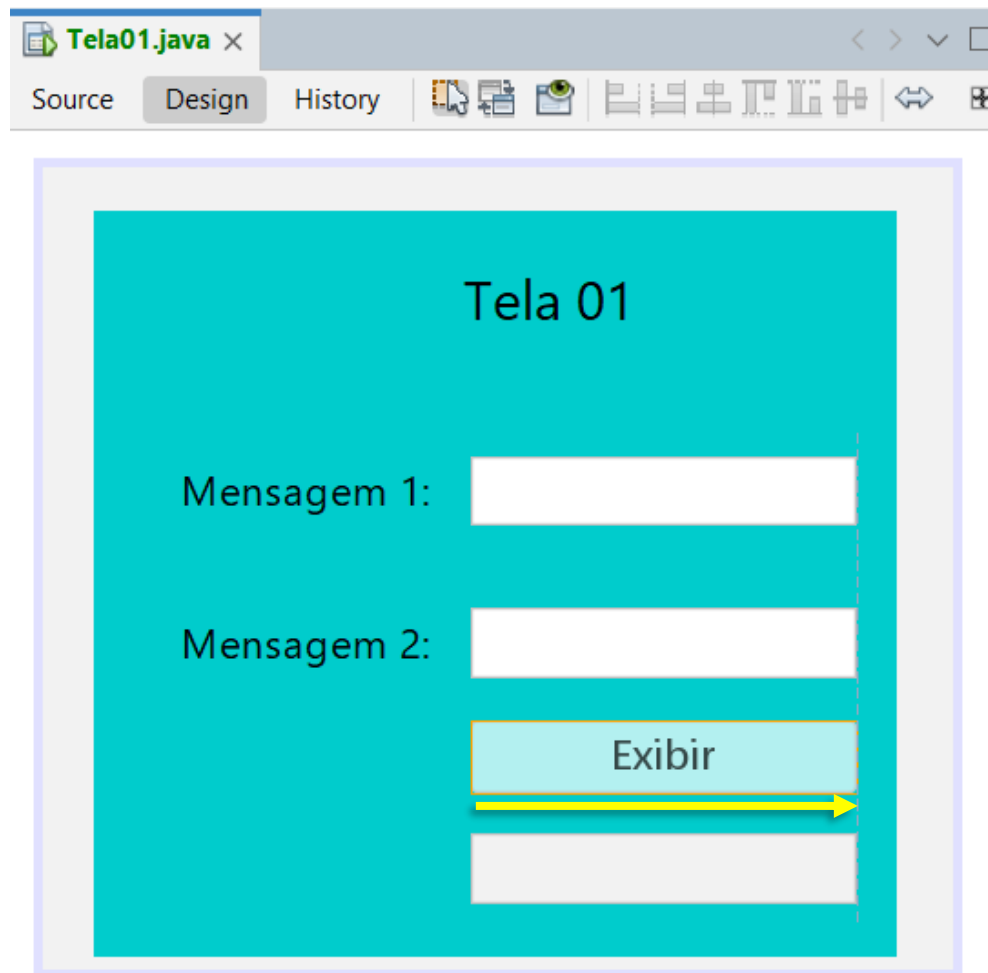
- Label
- Button

jButton1 [JButton] - Properties

Properties	Events	Code
font		Segoe UI 12 Plain
foreground		[0,0,0]
icon		<none>



Java Swing – JButton – Redimensionar



Java Swing – JButton – Renomear Var.

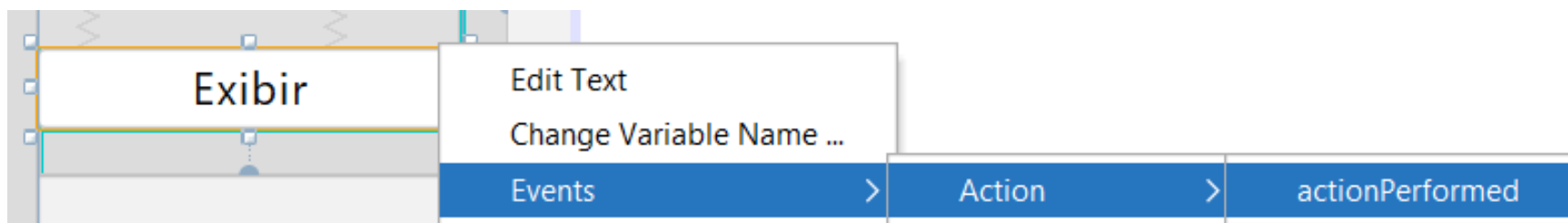
The image shows a Java Swing IDE interface. The main window, titled 'Tela 01', is in Design mode. It contains a cyan background with the text 'Tela 01'. Below this, there are two labels: 'Mensagem 1:' and 'Mensagem 2:'. To the right of these labels is a vertical stack of components. The bottom component is a JButton labeled 'Exibir'. A yellow arrow points from the 'Exibir' button to the 'Properties' window.

The 'Properties' window for 'btnExibir [JButton]' is open. It shows the 'Code' tab. The 'Code Generation' section displays the following information:

Property	Value
Bean Class	class javax.swing.JButton
Variable Name	btnExibir
Variable Modifiers	private



Java Swing – JButton – Adicionar Ação



Java Swing – JButton – Adicionar Ação

```
private void btnExibirActionPerformed(java.awt.event.ActionEvent evt) {
```

}



Java Swing – JButton – Adicionar Ação

```
import javax.swing.JOptionPane;
```



Java Swing – JButton – Adicionar Ação

```
private void btnExibirActionPerformed(java.awt.event.ActionEvent evt) {  
  
    String mensagem1 = txtMensagem1.getText();  
    String mensagem2 = String.valueOf(txpMensagem2.getPassword());  
  
    String mensagemFinal = mensagem1 + " " + mensagem2;  
  
    txtMensagemFinal.setText(mensagemFinal);  
  
    JOptionPane.showMessageDialog(this, mensagemFinal);  
  
}
```



Java Swing – JButton – Execução



Sistema IFBA

Tela 01

Mensagem 1:

Mensagem 2:



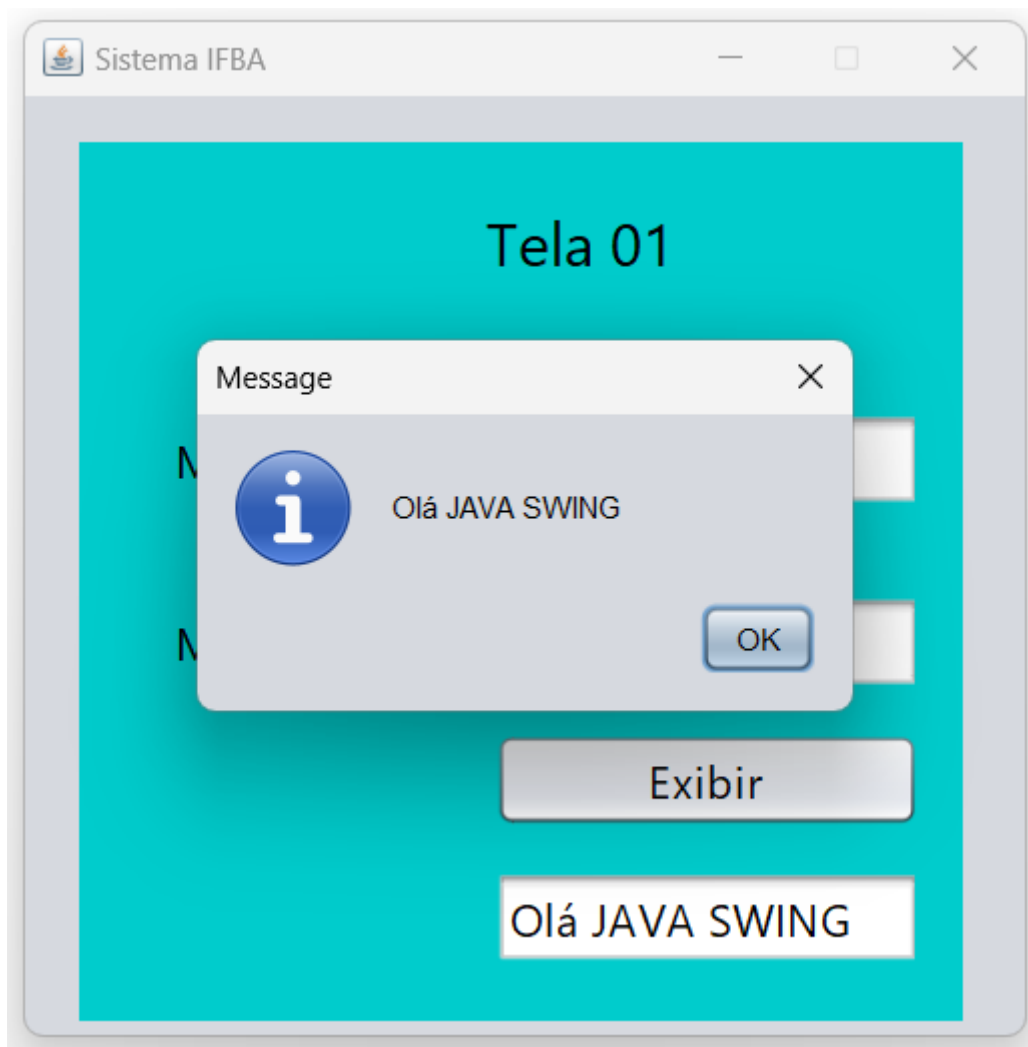
Java Swing – JButton – Execução



The screenshot shows a Java Swing window titled "Sistema IFBA". The window has a light gray title bar with standard minimize, maximize, and close buttons. The main content area has a cyan background. At the top center, the text "Tela 01" is displayed. Below this, there are two labels: "Mensagem 1:" and "Mensagem 2:". Next to "Mensagem 1:" is a text input field containing the text "Olá". Next to "Mensagem 2:" is a text input field containing ten asterisks "*****". Below these fields is a gray button with the text "Exibir". At the bottom of the cyan area, there is an empty white rectangular box.



Java Swing – JButton – Execução



Java Swing – JButton – Execução



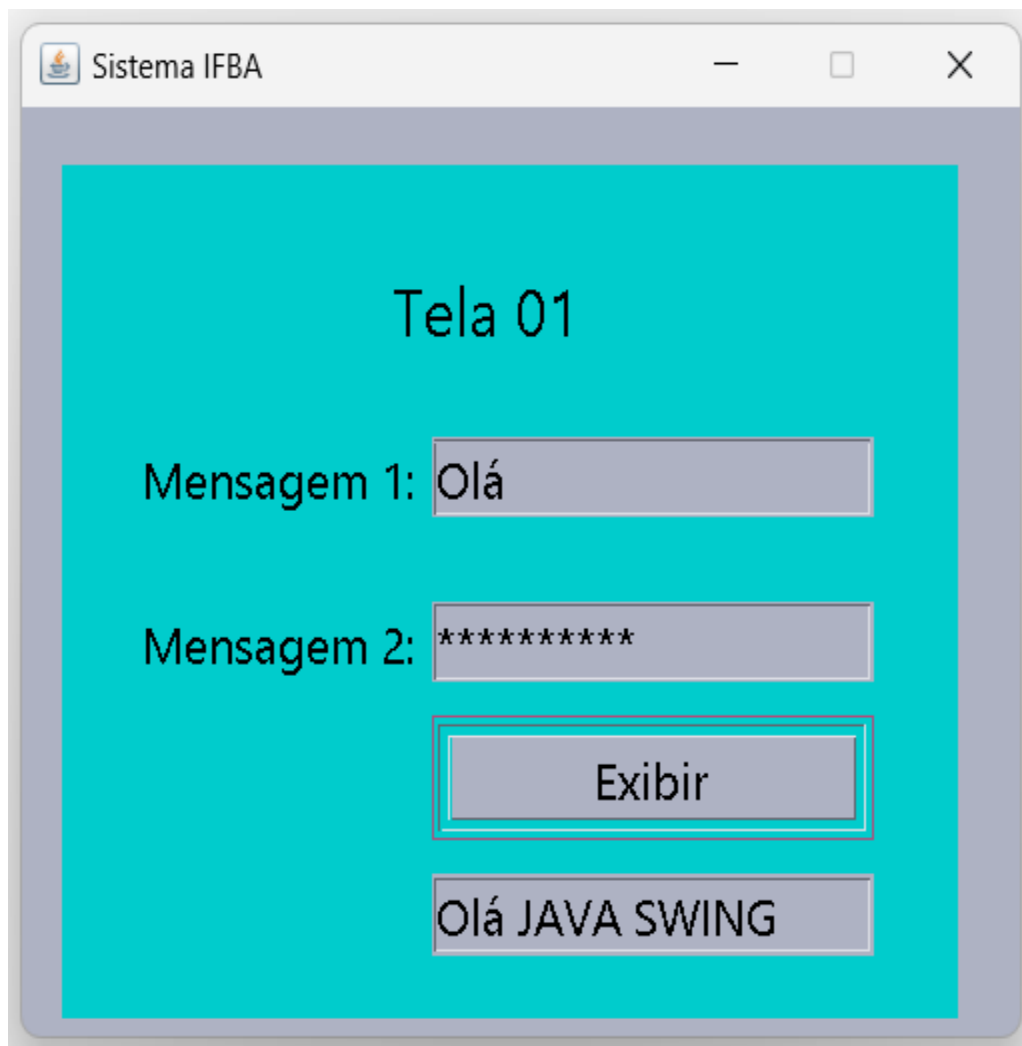
Java Swing – Troca de Tema (Aparência)

```
if ("Nimbus".equals(info.getName())) {  
    javax.swing.UIManager.setLookAndFeel(info.getClassName());  
    break;  
}
```

```
if ("CDE/Motif".equals(info.getName())) {  
    javax.swing.UIManager.setLookAndFeel(info.getClassName());  
    break;  
}
```



Java Swing – Troca de Tema (Aparência)

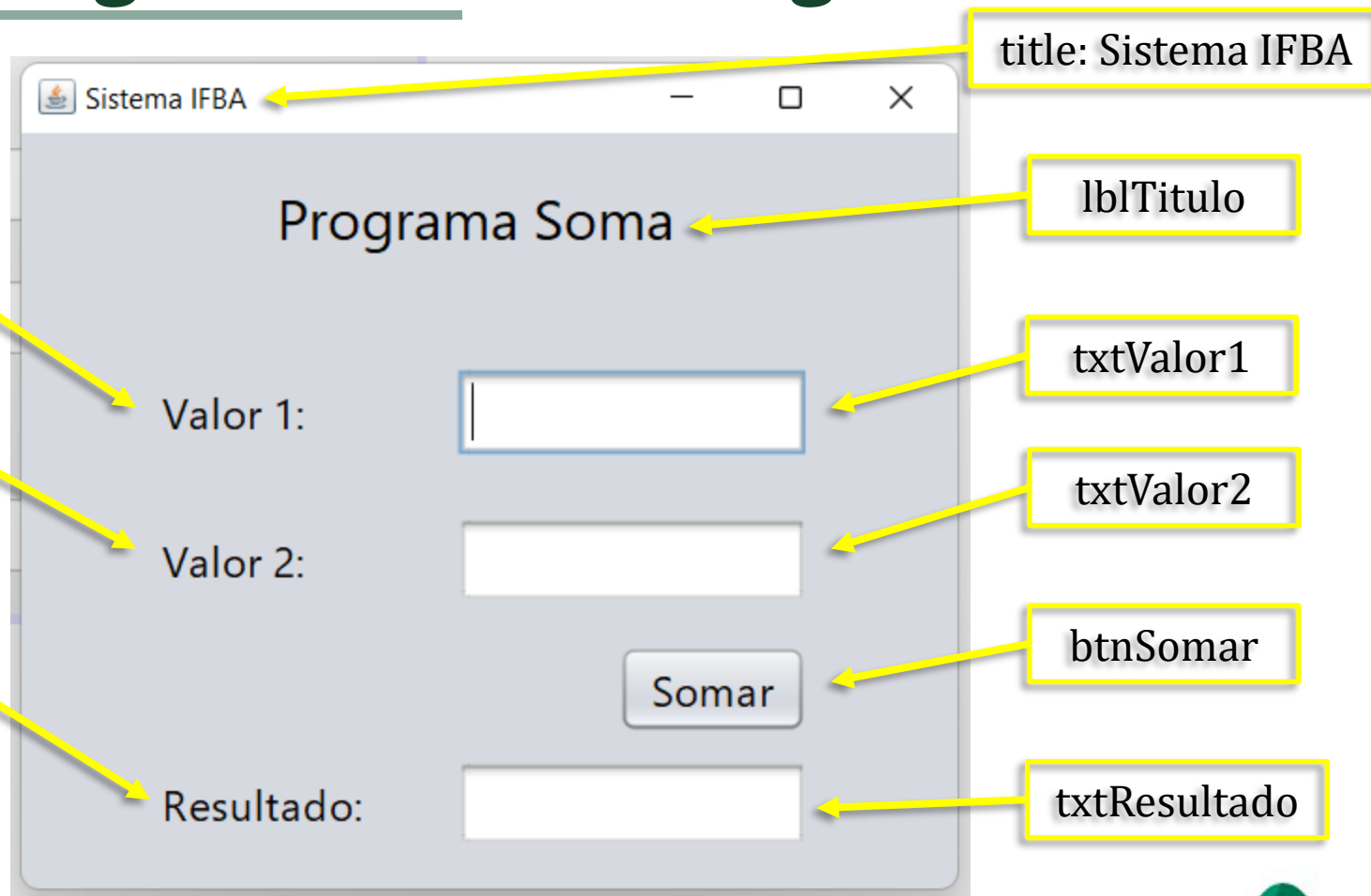


Java Swing – Lista de Tema (Aparência)

1. Nimbus
2. Metal
3. CDE/Motif (também conhecido como Motif)
4. Windows
5. Windows Classic
6. GTK (disponível apenas em sistemas Linux)
7. Aqua (disponível apenas em sistemas macOS)
8. Synth
9. Mac
10. Mac OS X
11. Ocean
12. Plastic
13. System



Java Swing – Exercício – Prog. Soma



TelaSoma.java



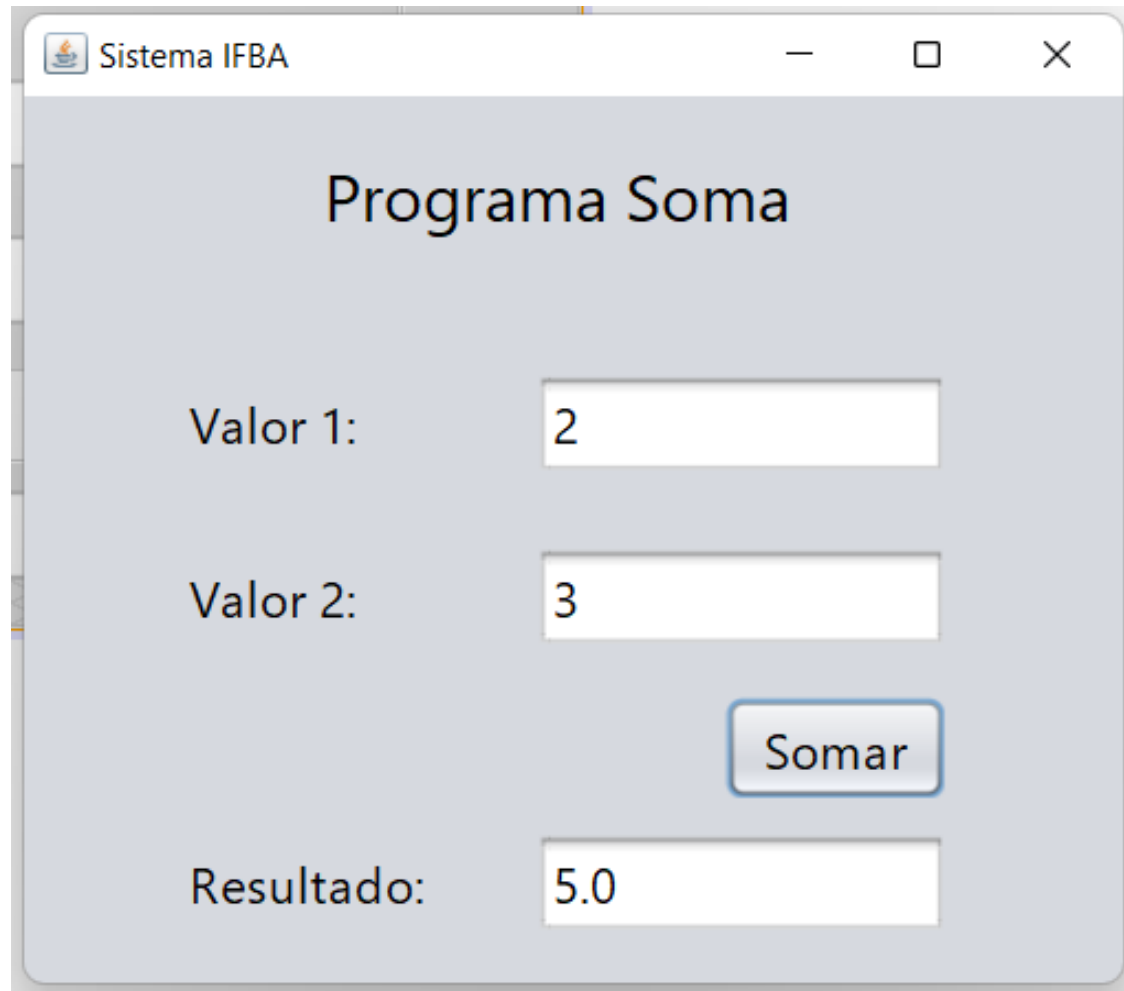
Java Swing – Exercício – Prog. Soma

```
private void btnSomarActionPerformed(java.awt.event.ActionEvent evt) {  
  
    double valor1 = Double.parseDouble(txtValor1.getText());  
  
    double valor2 = Double.parseDouble(txtValor2.getText());  
  
    double resultado = valor1 + valor2;  
  
    String strResultado = String.valueOf(resultado);  
  
    txtResultado.setText(strResultado);  
  
}
```



Java Swing – Exercício – Prog. Soma

Execução



Sistema IFBA

Programa Soma

Valor 1: 2

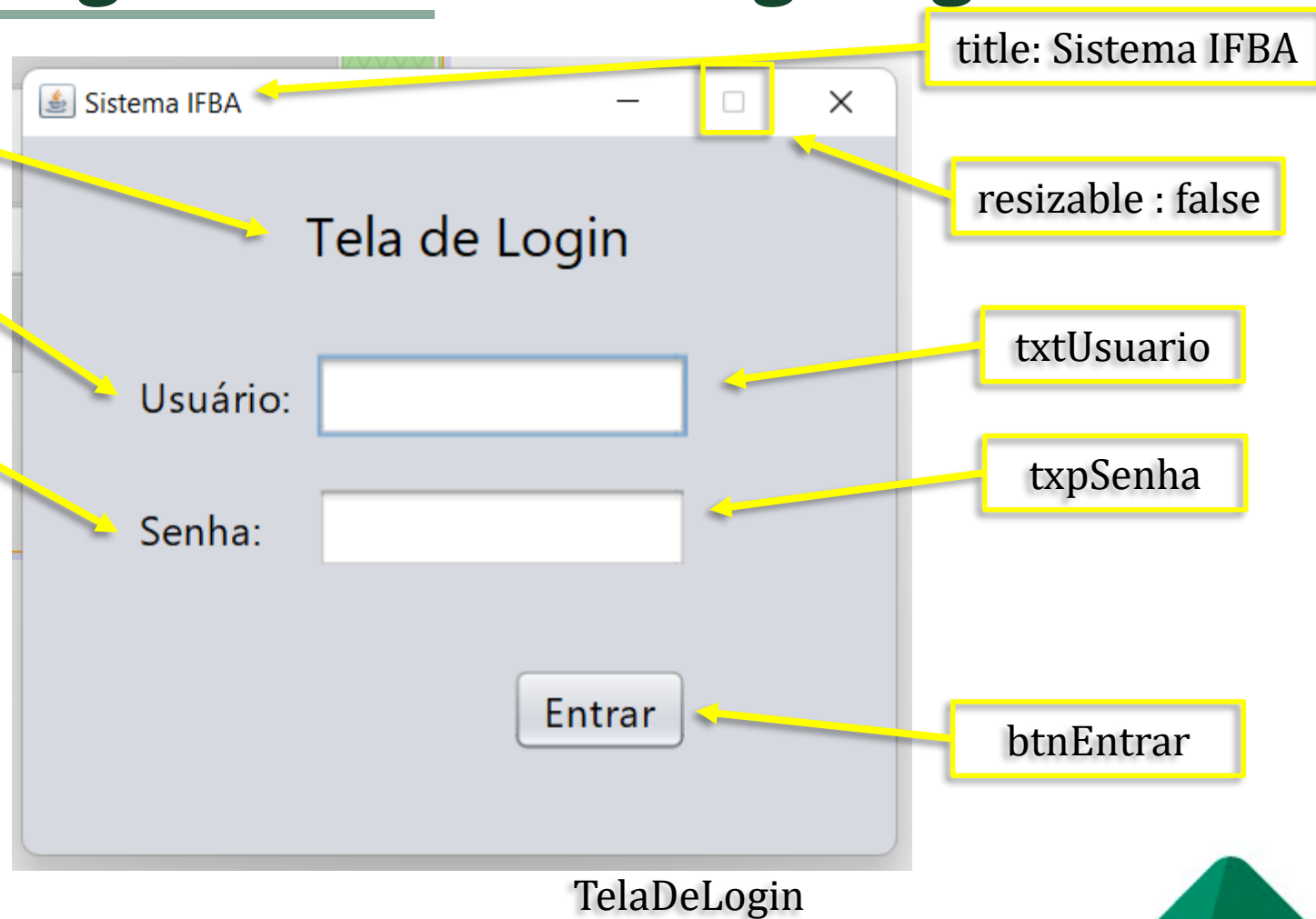
Valor 2: 3

Somar

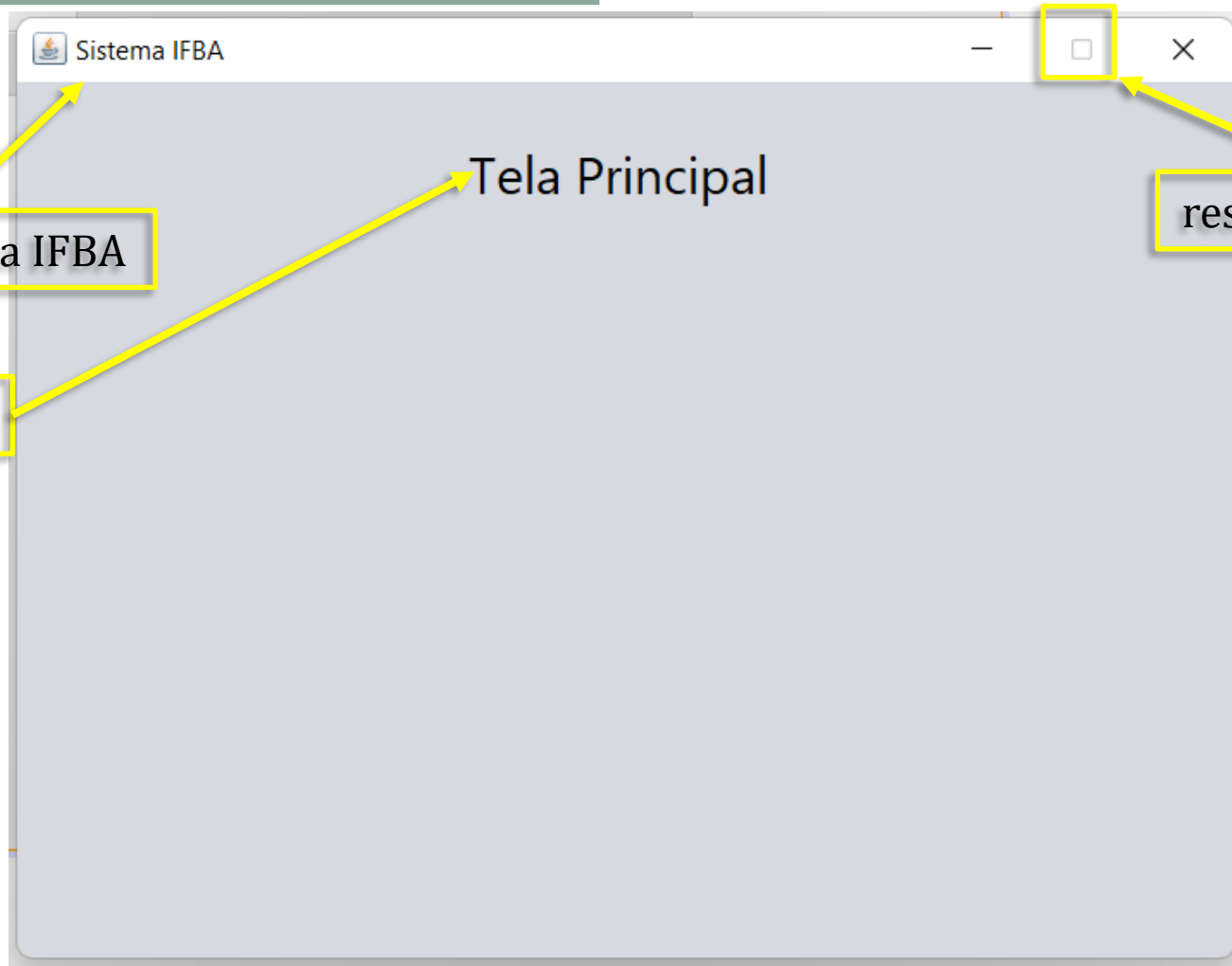
Resultado: 5.0



Java Swing – Exercício – Prog. Login



Java Swing – Exercício – Prog. Principal



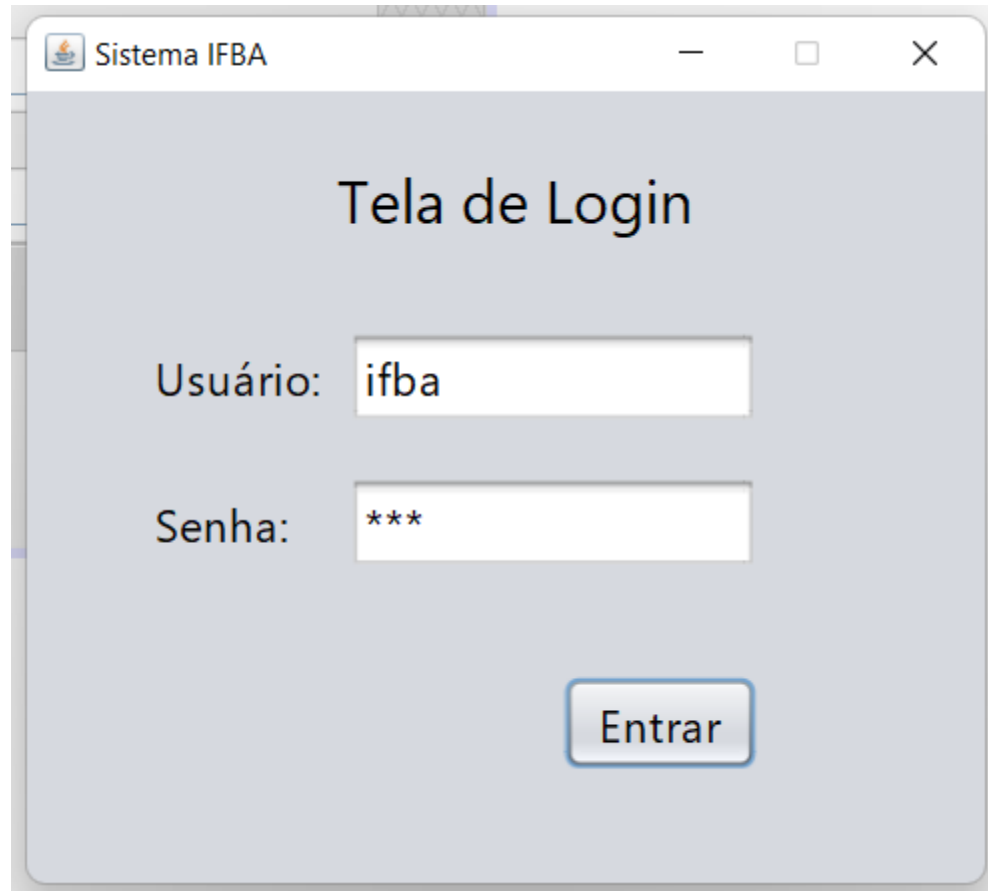
Java Swing – Exercício – Prog. Login

```
private void btnEntrarActionPerformed(java.awt.event.ActionEvent evt) {  
  
    String usuario = txtUsuario.getText();  
  
    String senha = String.valueOf(txpSenha.getPassword());  
  
    if(usuario.equals("ifba") && senha.equals("1234"))  
    {  
        new TelaPrincipal().setVisible(true);  
  
        this.dispose();  
    }  
    else  
    {  
        JOptionPane.showMessageDialog(this, "Acesso negado!");  
    }  
}
```



Java Swing – Exercício – Prog. Login

Execução

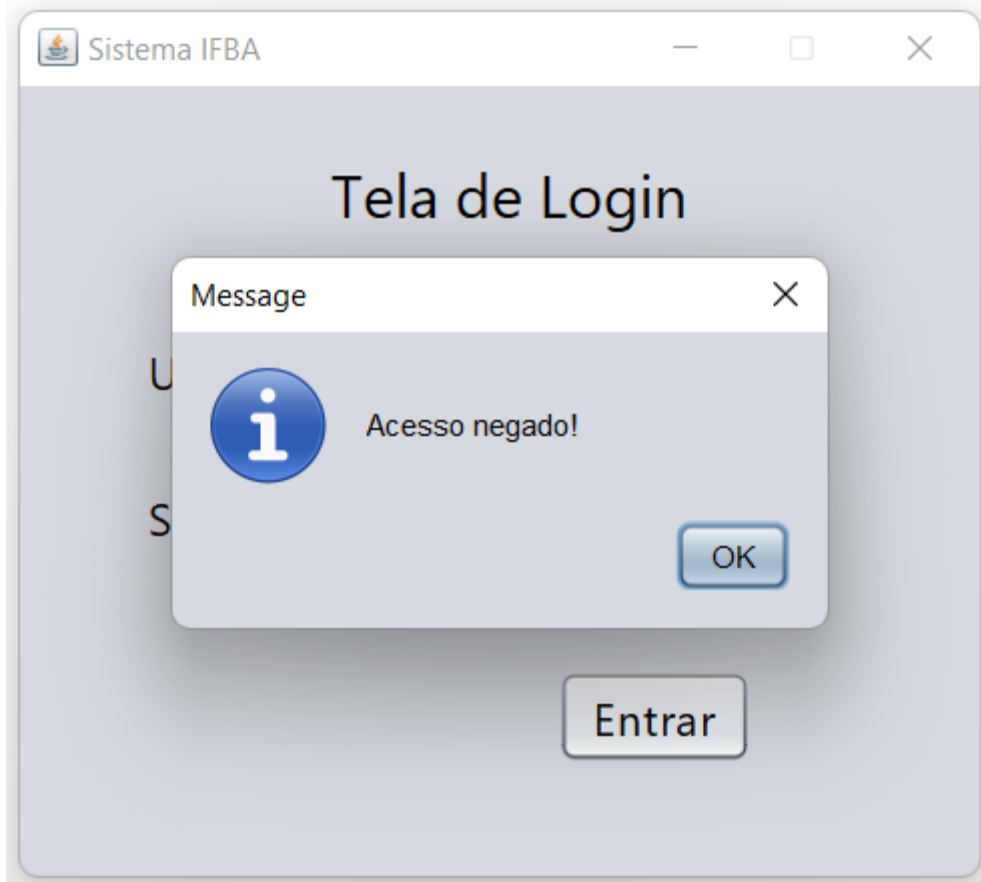


The screenshot shows a Java Swing window titled "Sistema IFBA". Inside the window, the text "Tela de Login" is centered. Below this, there are two input fields. The first is labeled "Usuário:" and contains the text "ifba". The second is labeled "Senha:" and contains three asterisks "***". At the bottom right of the window, there is a button labeled "Entrar".



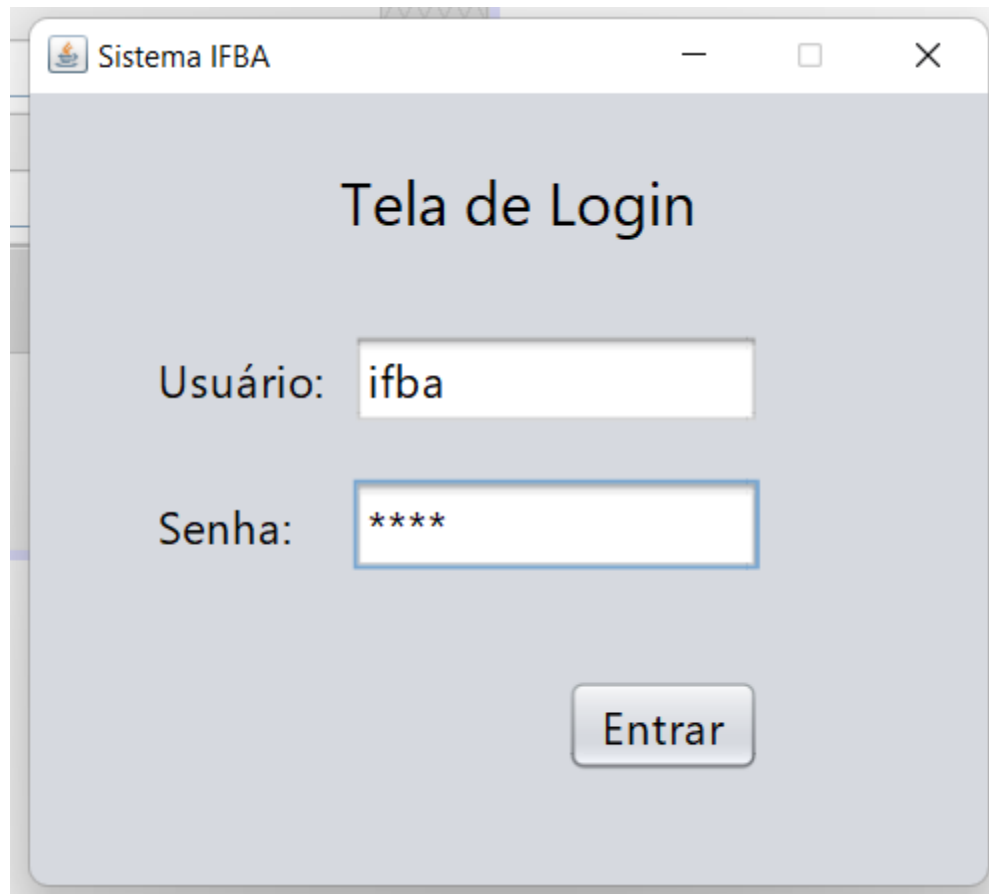
Java Swing – Exercício – Prog. Login

Execução



Java Swing – Exercício – Prog. Login

Execução

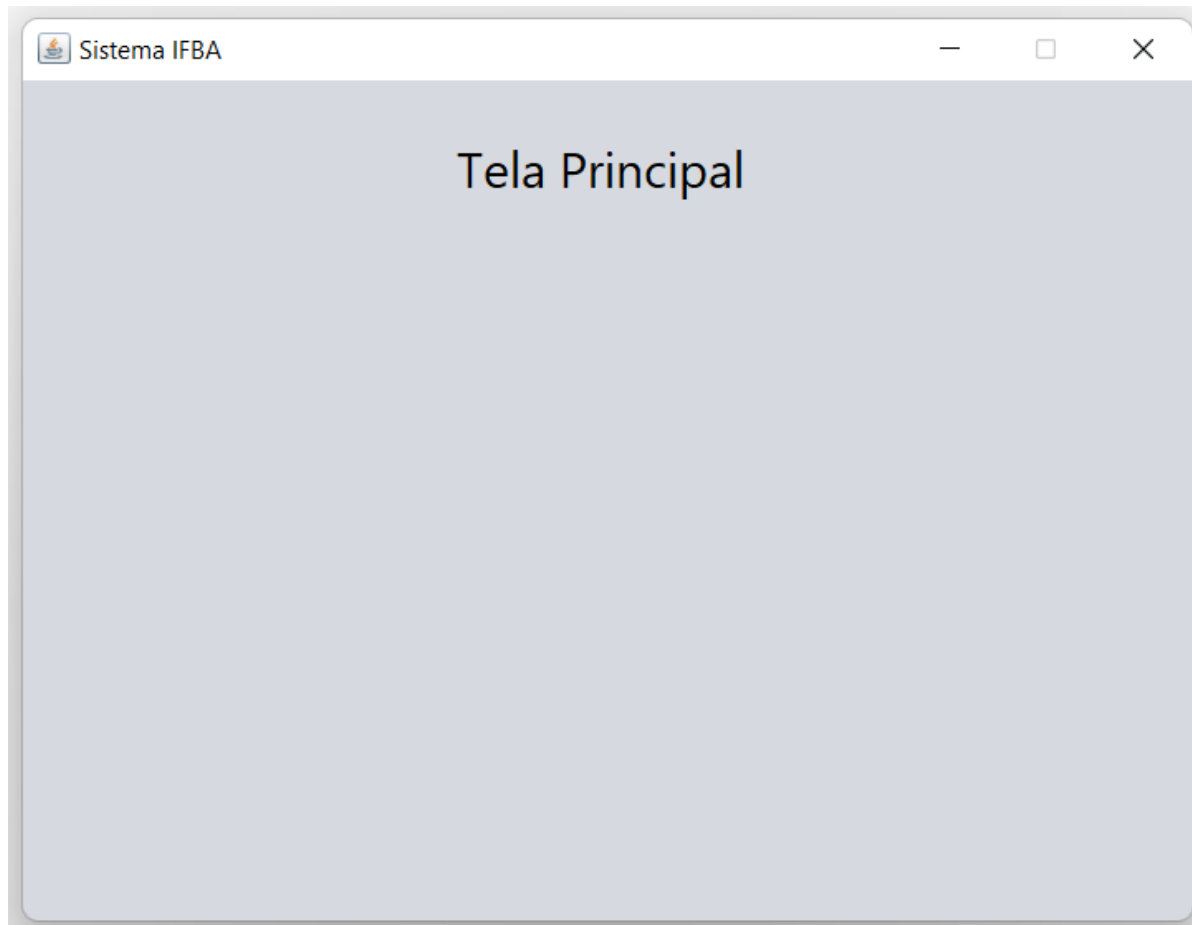


The screenshot shows a Java Swing window titled "Sistema IFBA". Inside the window, the text "Tela de Login" is centered. Below this, there are two input fields. The first is labeled "Usuário:" and contains the text "ifba". The second is labeled "Senha:" and contains four asterisks "****". Below these fields is a button labeled "Entrar".



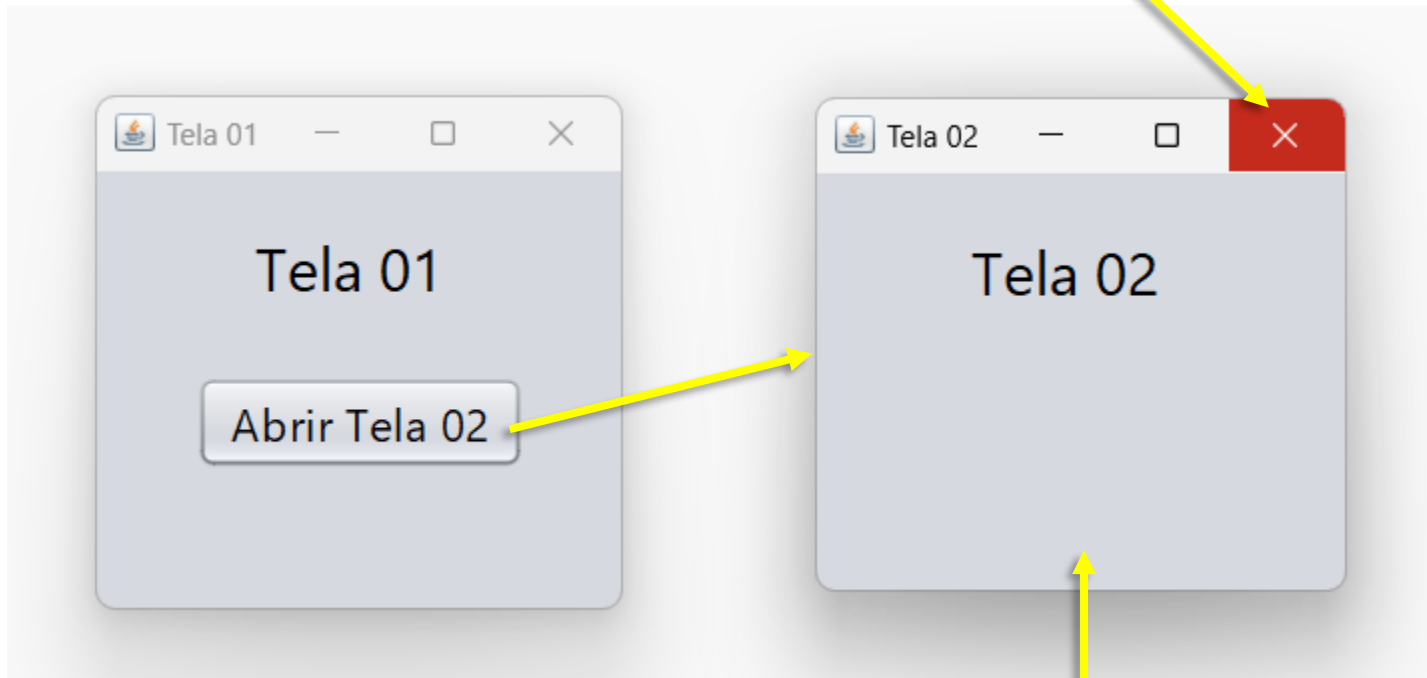
Java Swing – Exercício – Prog. Login

Execução



Java Swing – defaultCloseOperation

Quando clicar fechará todas as telas



JFRAME - defaultCloseOperation : EXIT_ON_CLOSE



Java Swing – defaultCloseOperation

Quando clicar fechará somente a Tela 02



JFRAME - defaultCloseOperation : DISPOSE



Referências

- Junior, Peter Jandl. Java Guia do Programador - 4ª Edição. Novatec Editora.
- SÉRGIO FURGERI. Java Ensino Didático: Desenvolvimento e Implementação de Aplicações. Editora Érica.
- <https://www.youtube.com/playlist?list=PLwQkYMetu0OYFOU71txhtvSYTVUCHjJYD>
- https://www.youtube.com/playlist?list=PLWd_VnthxxLfeEUK08gB7G3316OS5xIT3



Obrigado!

- Canais de Comunicação;
- Horário de Atendimento.

