

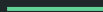
Aula prática 4

Monitoria InfraCom 2020.3

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Objetivo

- Construção de uma interface gráfica para um chat P2P



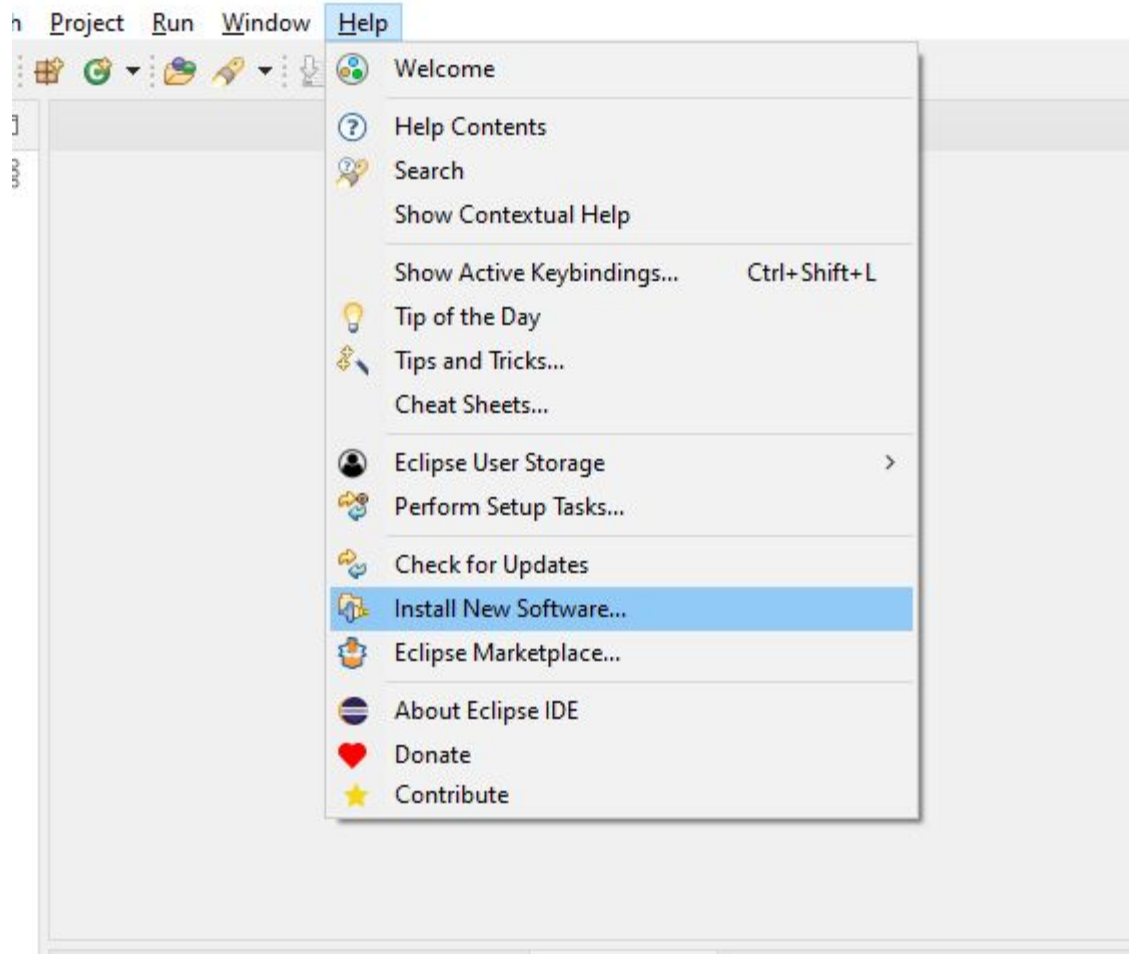
Interface Gráfica

Para ser feita a interface gráfica você poderá usar biblioteca e IDE de sua preferência, porém na aula será mostrado o uso do Java Swing pela ferramenta WindowBuilder no eclipse.

Instalando WindowBuilder

Com Eclipse aberto:

- Vai em 'Help'
- Selecione 'Install New Software'



Instalando WindowBuilder

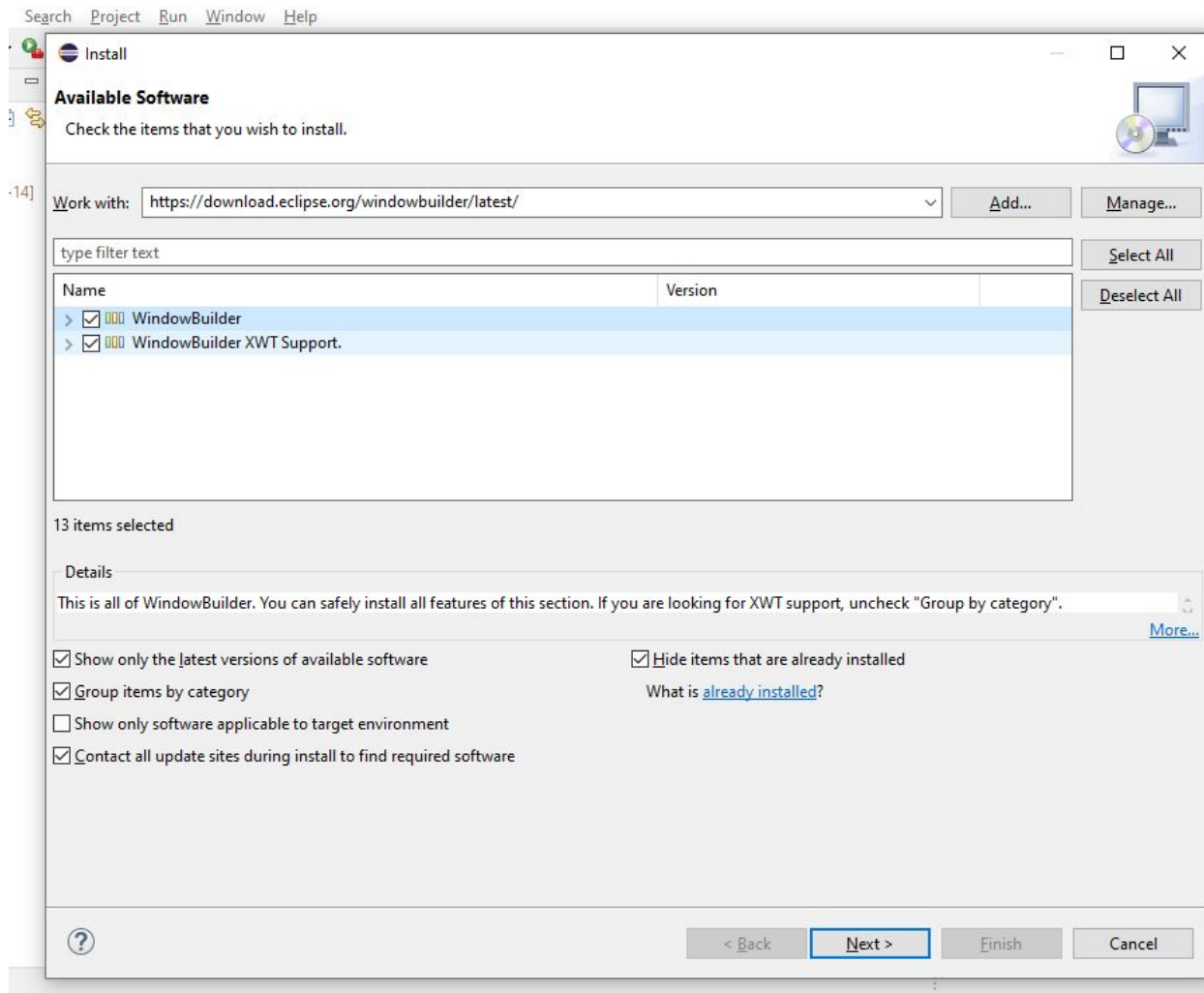
No campo Work with coloque o seguinte link:

<https://www.eclipse.org/windowbuilder/download.php>

Selecione todos os itens que aparecer.

Selecione o botão 'Next' e depois finalize apertando em 'Finish'

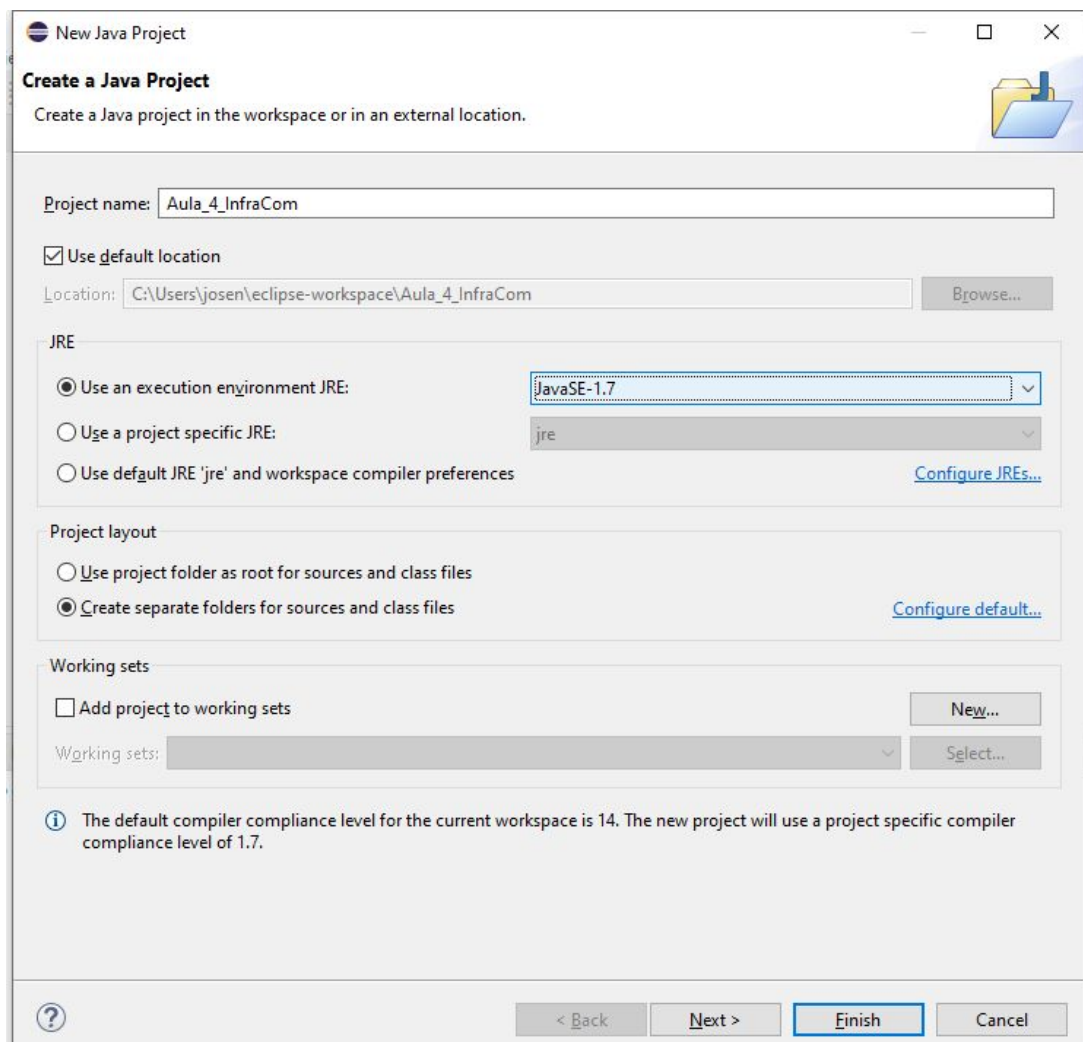
Pronto, o eclipse iniciará a instalação do WindowBuilder. Quando finalizar a instalação vai pedir para reiniciar a IDE.



Configurando Eclipse

Primeiro, na criação de um novo projeto Java.

Selecione JavaSE-1.7 na opção 'Use an execution environment JRE'



The screenshot shows the 'New Java Project' dialog box in Eclipse. The title bar says 'New Java Project'. Below the title bar, it says 'Create a Java Project' and 'Create a Java project in the workspace or in an external location.' There is a folder icon in the top right corner.

The dialog is divided into several sections:

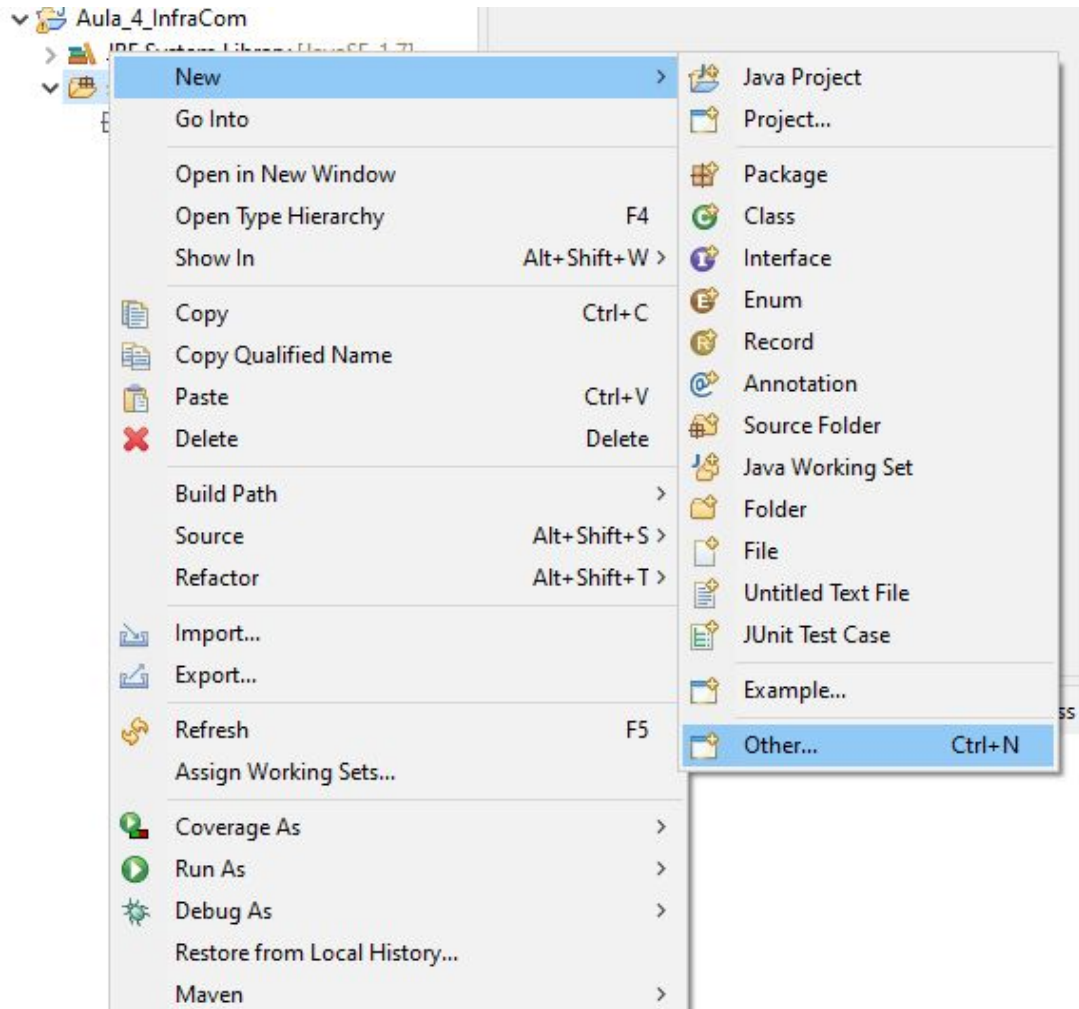
- Project name:** A text field containing 'Aula_4_InfraCom'.
- Use default location:** A checked checkbox. Below it, a text field shows the location 'C:\Users\josen\eclipse-workspace\Aula_4_InfraCom' and a 'Browse...' button.
- JRE:** A section with three radio buttons:
 - ☒ Use an execution environment JRE: A dropdown menu showing 'JavaSE-1.7'.
 - ☐ Use a project specific JRE: A dropdown menu showing 'jre'.
 - ☐ Use default JRE 'jre' and workspace compiler preferences.A 'Configure JREs...' link is on the right.
- Project layout:** A section with two radio buttons:
 - ☐ Use project folder as root for sources and class files.
 - ☒ Create separate folders for sources and class files.A 'Configure default...' link is on the right.
- Working sets:** A section with a checkbox 'Add project to working sets' and a 'New...' button. Below it, a 'Working sets:' dropdown and a 'Select...' button.

At the bottom, there is an information icon and a message: 'The default compiler compliance level for the current workspace is 14. The new project will use a project specific compiler compliance level of 1.7.'

The bottom of the dialog has four buttons: '?', '< Back', 'Next >', and 'Finish' (highlighted with a blue border), and a 'Cancel' button.

Configurando Eclipse

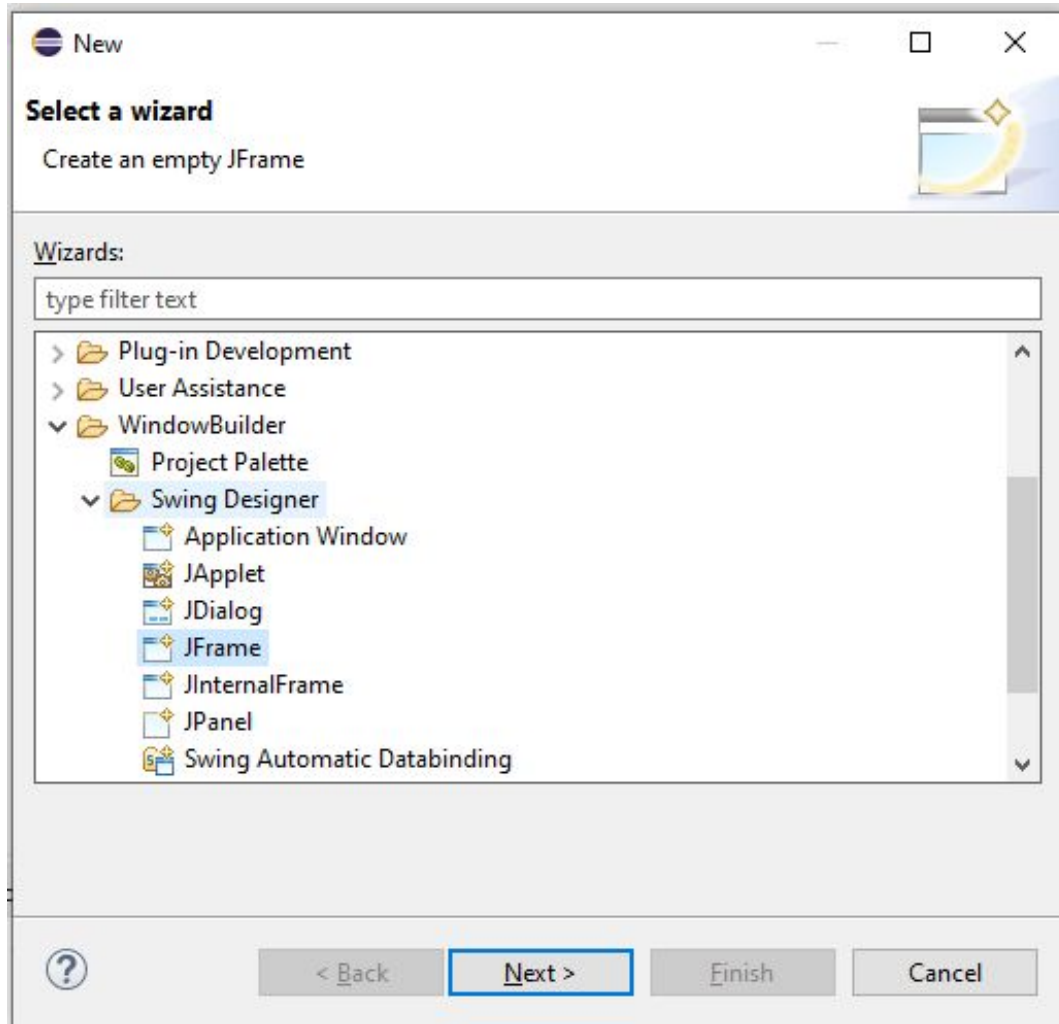
Depois que criar um novo projeto, para um novo arquivo .java vá em 'New' -> 'Other...'



Configurando Eclipse

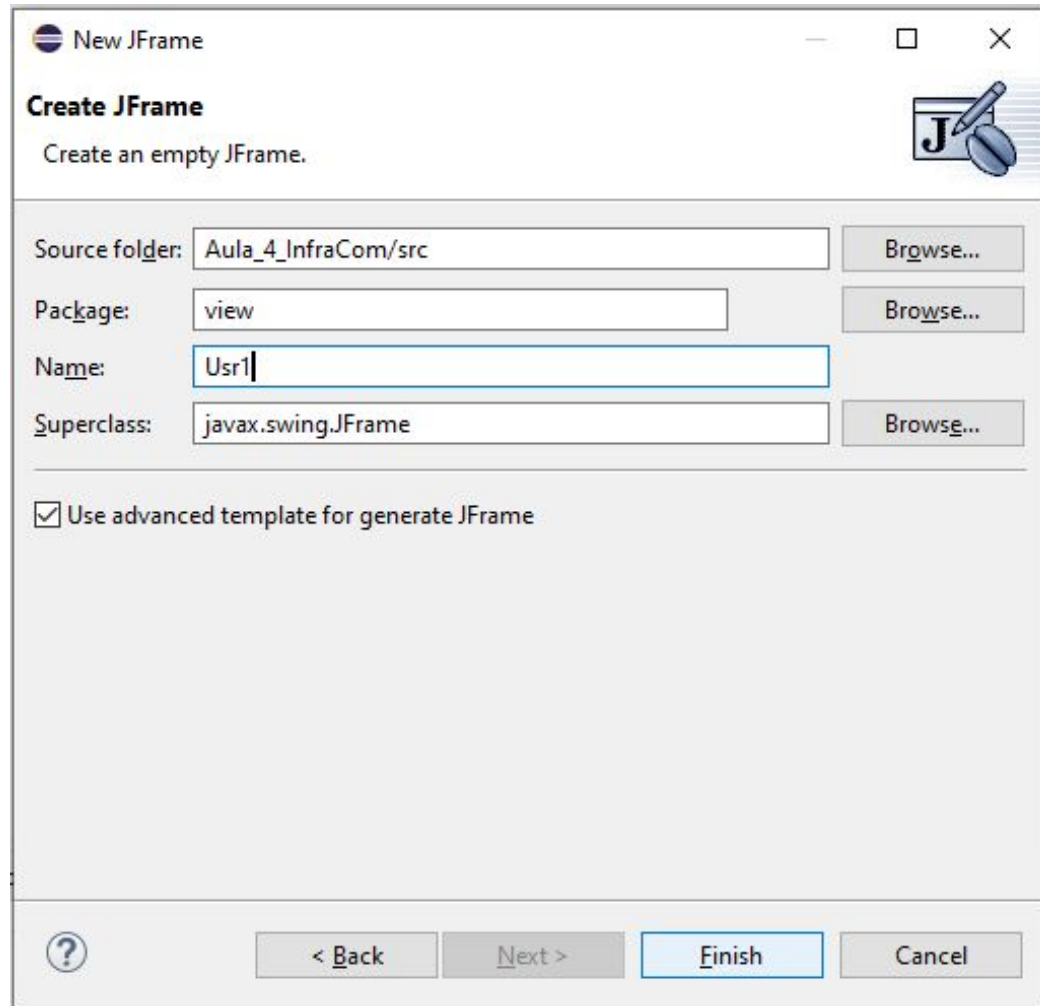
Vá em 'WindowBuilder' -> 'Swing Designer' -> 'JFrame'

Aperte o botão 'Next'



Configurando Eclipse

Escreva o nome do arquivo .java
e aperte no botão 'Finish'



The image shows the 'New JFrame' dialog box in the Eclipse IDE. The dialog has a title bar 'New JFrame' with standard window controls. Below the title bar, it says 'Create JFrame' and 'Create an empty JFrame.' with a small icon of a notepad and pencil. The dialog contains four input fields: 'Source folder:' with the value 'Aula_4_InfraCom/src' and a 'Browse...' button; 'Package:' with the value 'view' and a 'Browse...' button; 'Name:' with the value 'Usr1' and a blue border; and 'Superclass:' with the value 'javax.swing.JFrame' and a 'Browse...' button. Below these fields is a checkbox labeled 'Use advanced template for generate JFrame' which is checked. At the bottom, there is a help icon (question mark), a '< Back' button, a 'Next >' button, a 'Finish' button (highlighted in blue), and a 'Cancel' button.

New JFrame

Create JFrame

Create an empty JFrame.

Source folder: Aula_4_InfraCom/src Browse...

Package: view Browse...

Name: Usr1

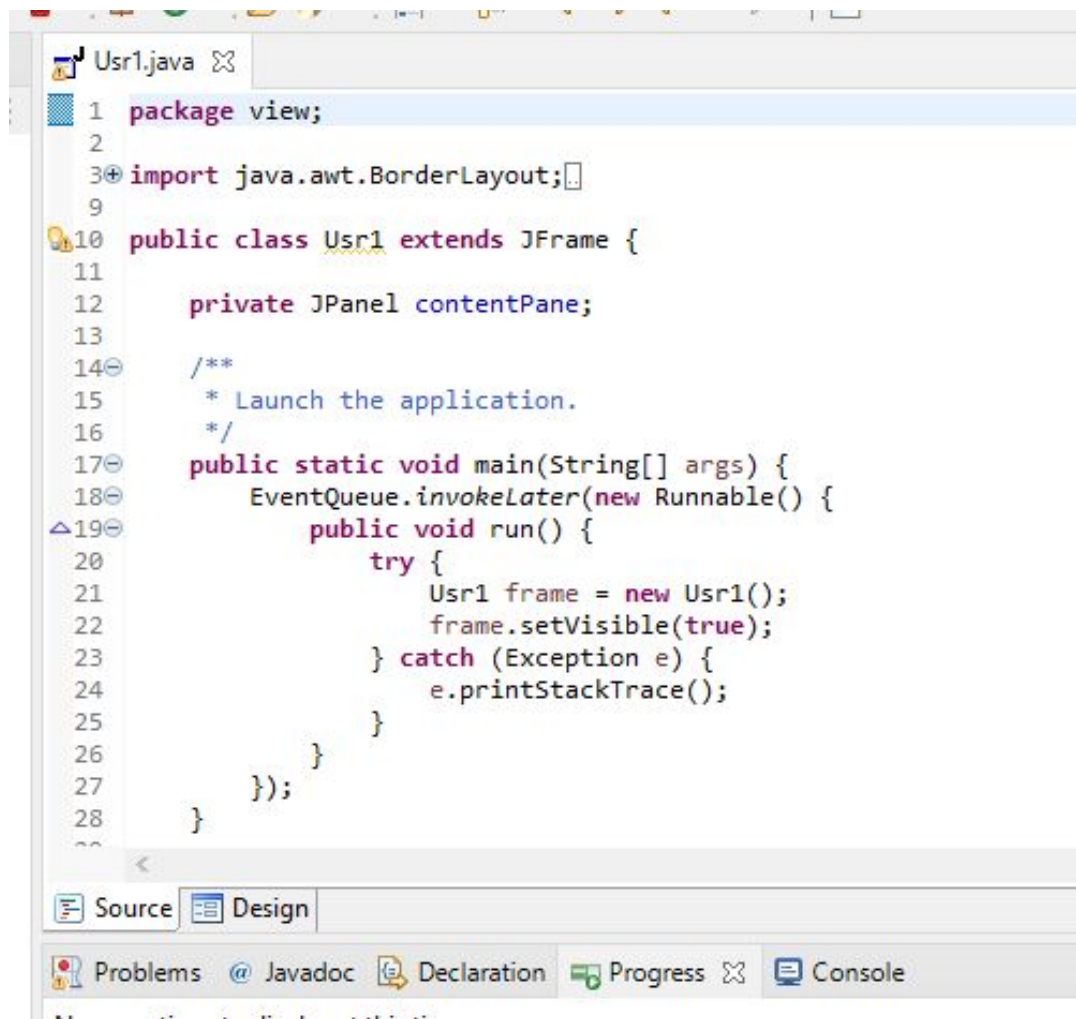
Superclass: javax.swing.JFrame Browse...

☒ Use advanced template for generate JFrame

? < Back Next > Finish Cancel

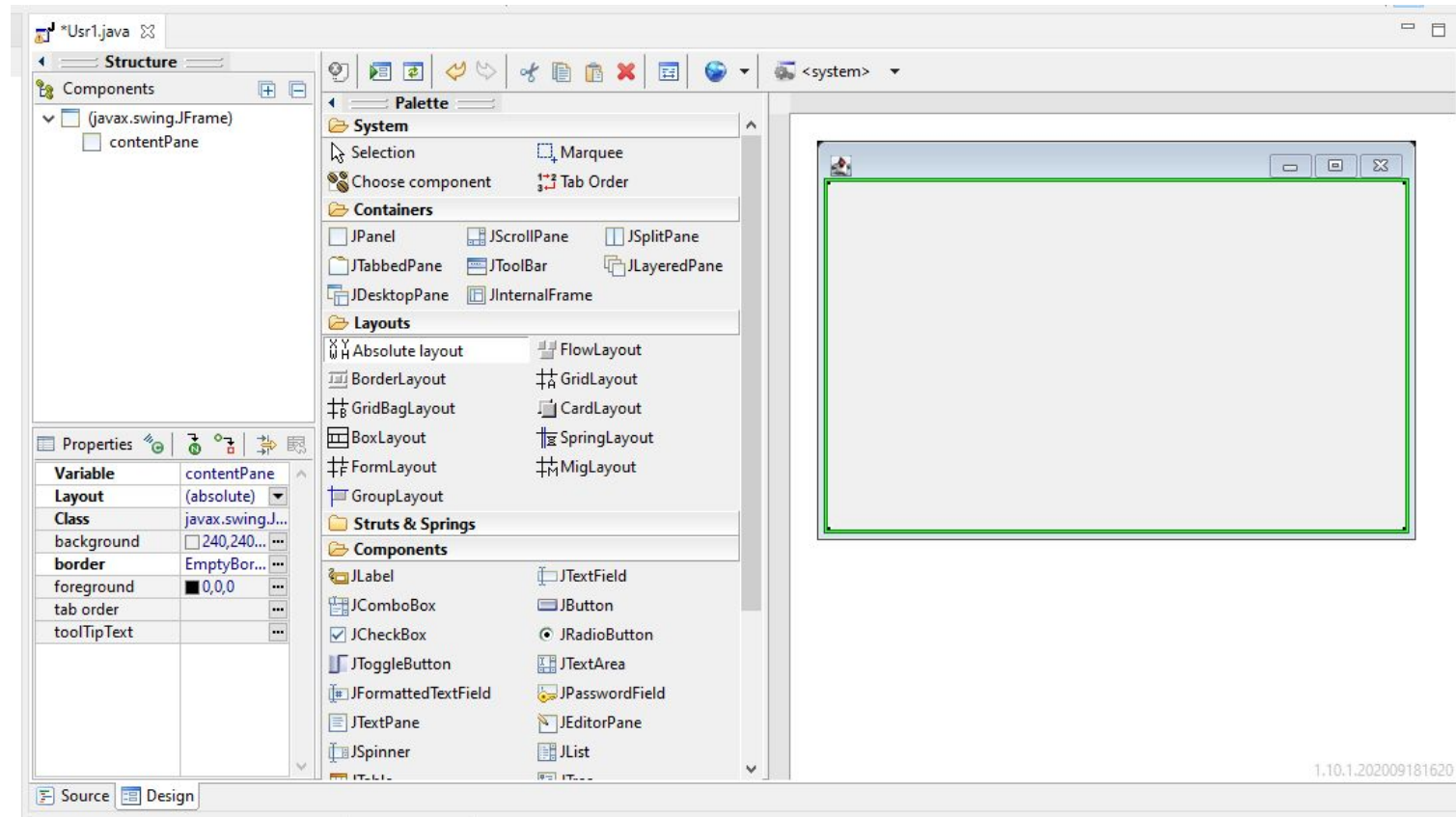
Editando Interface

No arquivo gerado, na parte de baixo, terá duas opções de visualização (source e design) em que o primeiro é os códigos do arquivo e o segundo é a parte gráfica para poder montar a tela de forma 'drag and drop'

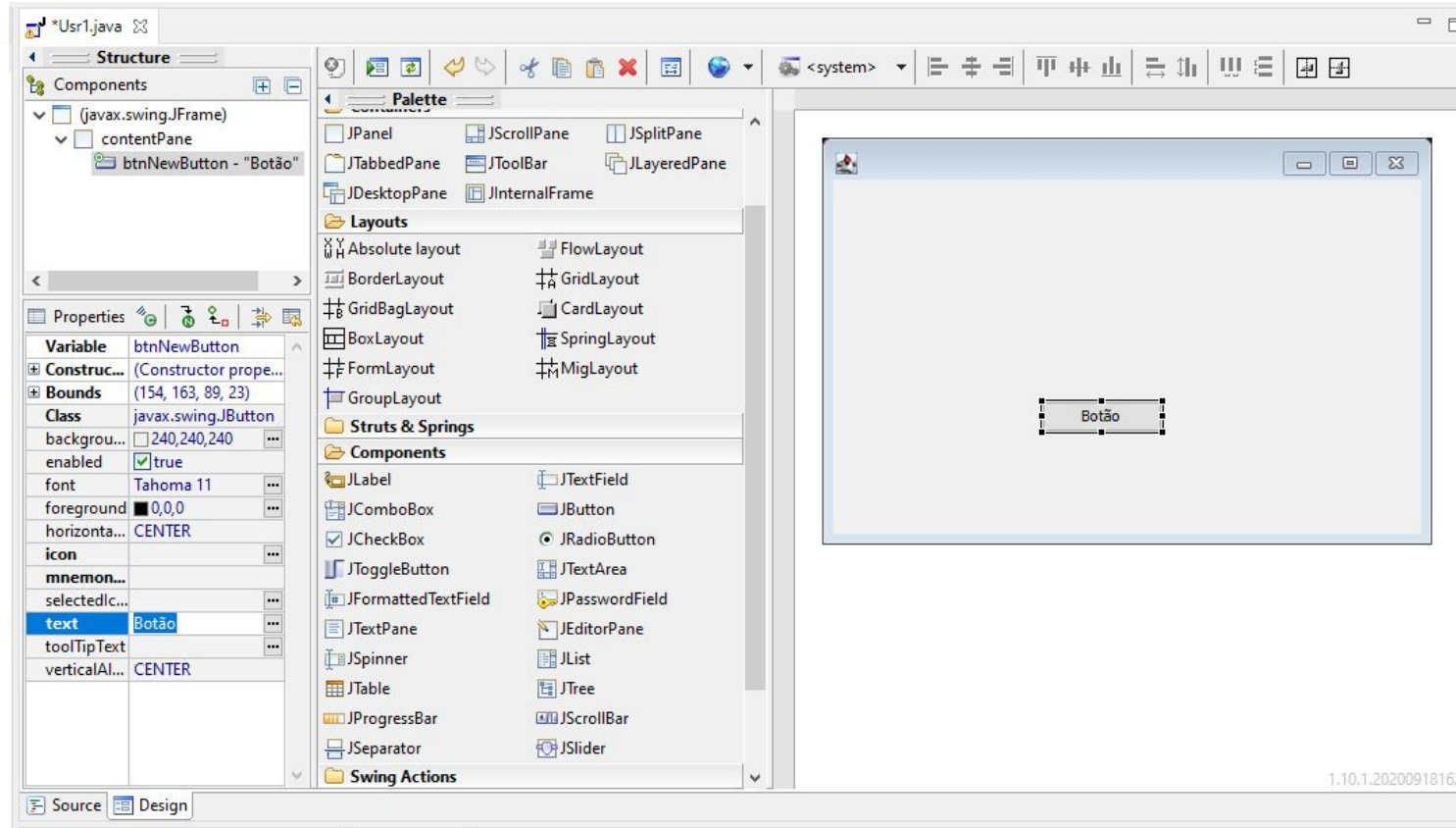


```
1 package view;
2
3 import java.awt.BorderLayout;
4
5
6
7
8
9
10 public class Usr1 extends JFrame {
11
12     private JPanel contentPane;
13
14     /**
15      * Launch the application.
16      */
17     public static void main(String[] args) {
18         EventQueue.invokeLater(new Runnable() {
19             public void run() {
20                 try {
21                     Usr1 frame = new Usr1();
22                     frame.setVisible(true);
23                 } catch (Exception e) {
24                     e.printStackTrace();
25                 }
26             }
27         });
28     }
29 }
```

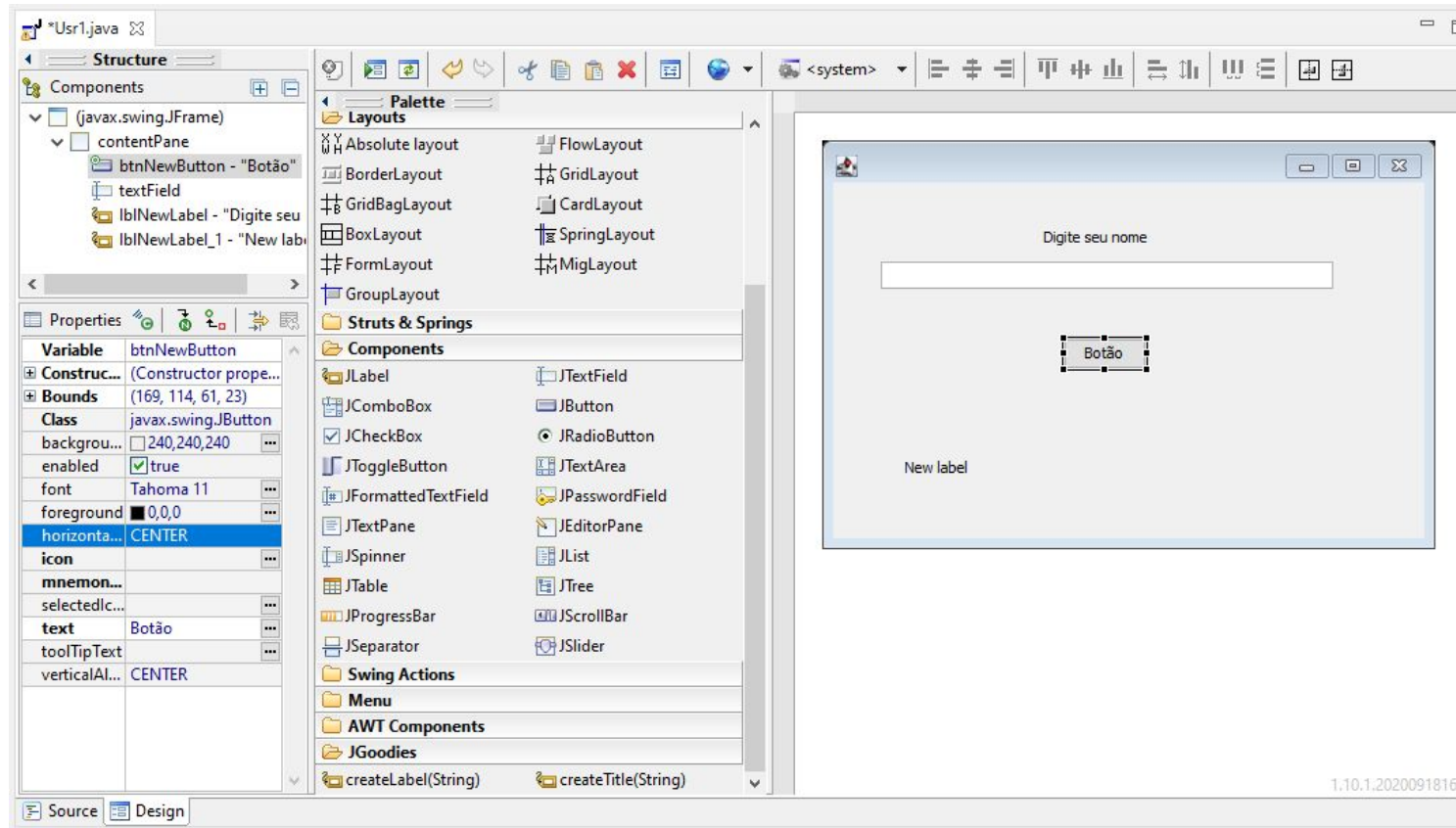
Editando Interface



Editando Interface



Editando Interface



Editando Interface

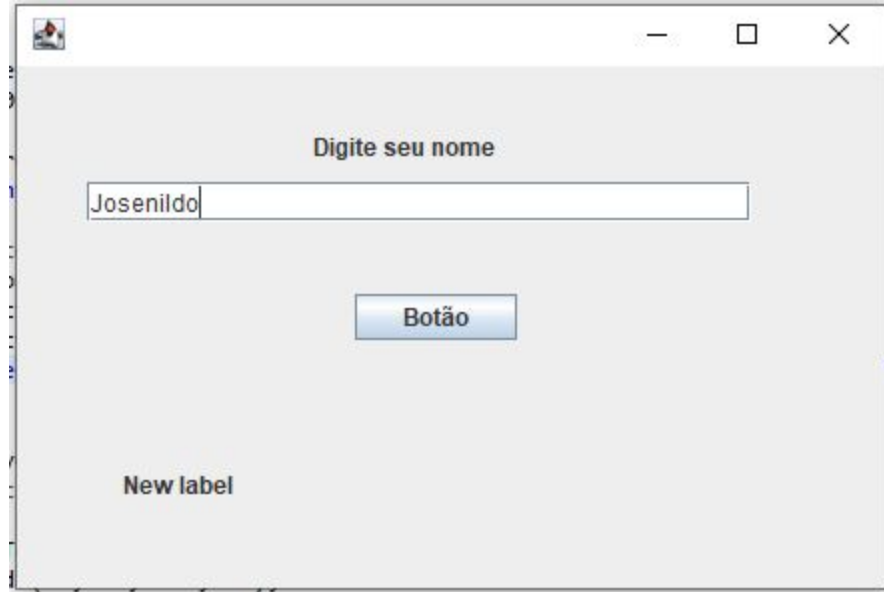
```
Usr1.java
36
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38 }));
39 }
40
41 /**
42  * Create the frame.
43  */
44 public Usr1() {
45     setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
46     setBounds(100, 100, 450, 300);
47     contentPane = new JPanel();
48     contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
49     setContentPane(contentPane);
50
51     JButton btnNewButton = new JButton("Bot\u00E3o");
52     btnNewButton.setBounds(169, 114, 61, 23);
53     btnNewButton.addActionListener(new ActionListener() {
54         public void actionPerformed(ActionEvent arg0) {
55             lblNewLabel_1.setText("Ol\u00e1 " + textField.getText() + " seja bem vindo!!!");
56         }
57     });
58     contentPane.setLayout(null);
59     contentPane.add(btnNewButton);
60
61     textField = new JTextField();
62     textField.setBounds(35, 58, 332, 20);
63     contentPane.add(textField);
64     textField.setColumns(10);
65
66     JLabel lblNewLabel = new JLabel("Digite seu nome");
67     lblNewLabel.setHorizontalAlignment(SwingConstants.CENTER);
68     lblNewLabel.setBounds(89, 33, 209, 14);
69     contentPane.add(lblNewLabel);
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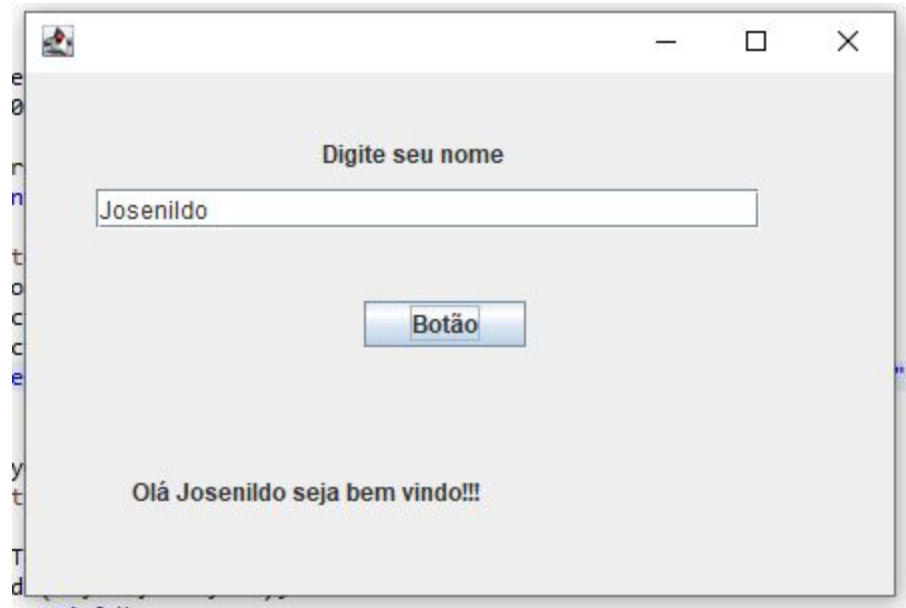
Editando Interface



Editando Interface



Editando Interface



Lista de exercício 4

Fazer lista 4 listada no Classroom

Acompanhamento durante o resto do horário da aula

Para quem não fizer a lista 3, após o fim do prazo de entrega da lista 3 serão disponibilizados os códigos para poder ser feita essa lista 4. (Não serão pontuadas entregas da lista 3 depois de postados os códigos)