



**UNICID**

Universidade  
Cidade de S. Paulo

# Implementando MVC em Java

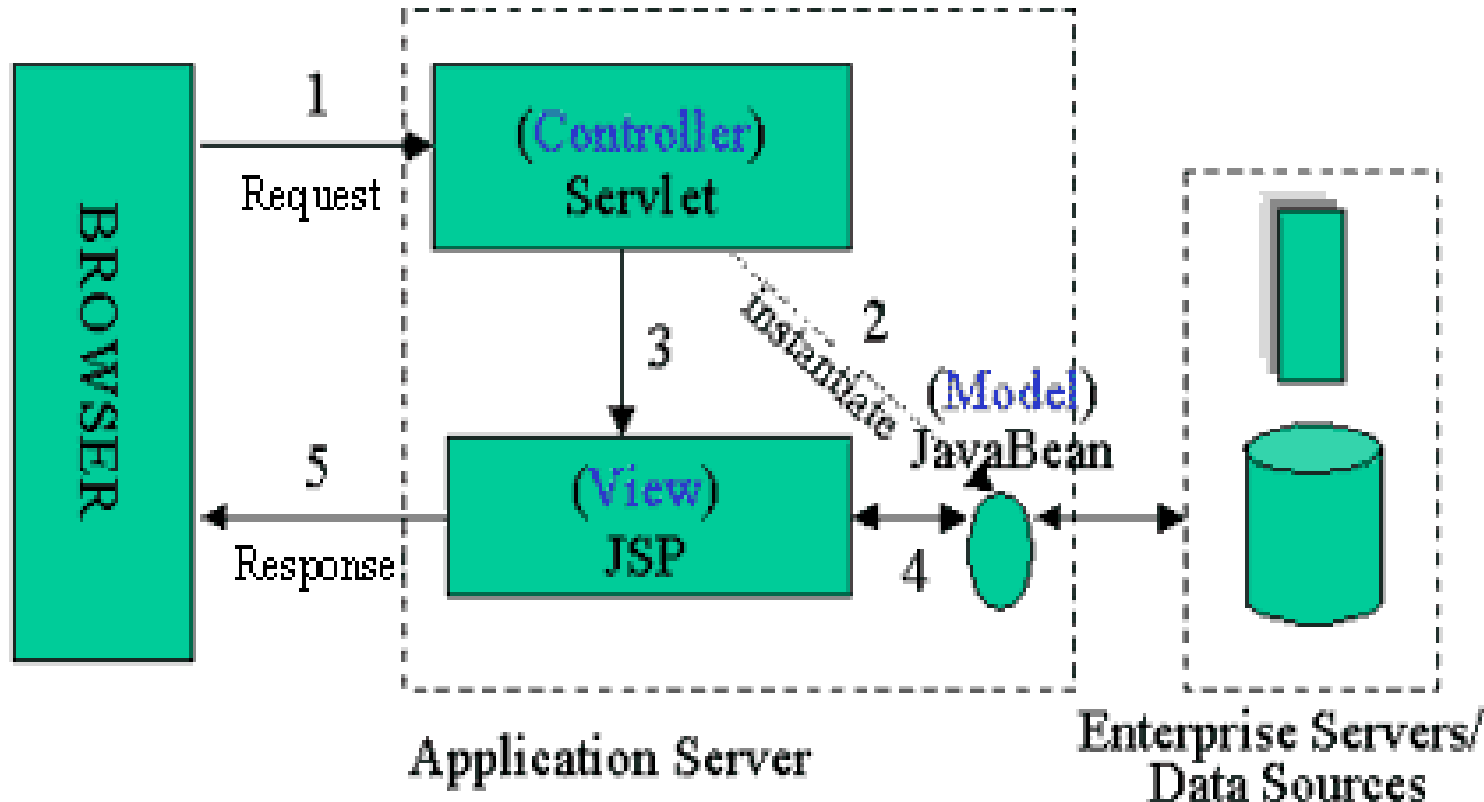
# **Model View Controller- Vantagens**

- **padrão de arquitetura de software;**
- **com o aumento da complexidade das aplicações era preciso separar os dados (model) da visão (view);**
- **as mudanças na visão não podem afetar a manipulação de dados;**
- **os dados devem ser reorganizados sem alterar a visão;**
- **utiliza um componente para comunicação entre modelo e visão: “controle”;**
- **define como a comunicação/interação entre os componentes de modelo e visão devem ser realizados;**

# **Model View Controller Desvantagens**

- **requer uma quantidade maior de tempo para analisar e modelar o sistema ;**
- **requer pessoal especializado;**
- **não é aconselhável para pequenas aplicações**

## Model View Controller Modelo 2



## Criando projeto Swing

**Para criarmos este nosso projeto você precisará:**

**Programas:**

- **JDK (Java) - jdk-7u21-windows-x64**
- **Eclipse - eclipse-jee-kepler-R-win32**
- **WindowBuilder - WB\_v1.6.1\_UpdateSite\_for\_Eclipse4.3**
- **WampServer ou MySQL Server**

**Bibliotecas (JAR):**

**mysql-connector-java-5.1.15-bin (Driver mySQL)**

**Todos estão disponíveis no dropbox.**

## Criando um novo projeto

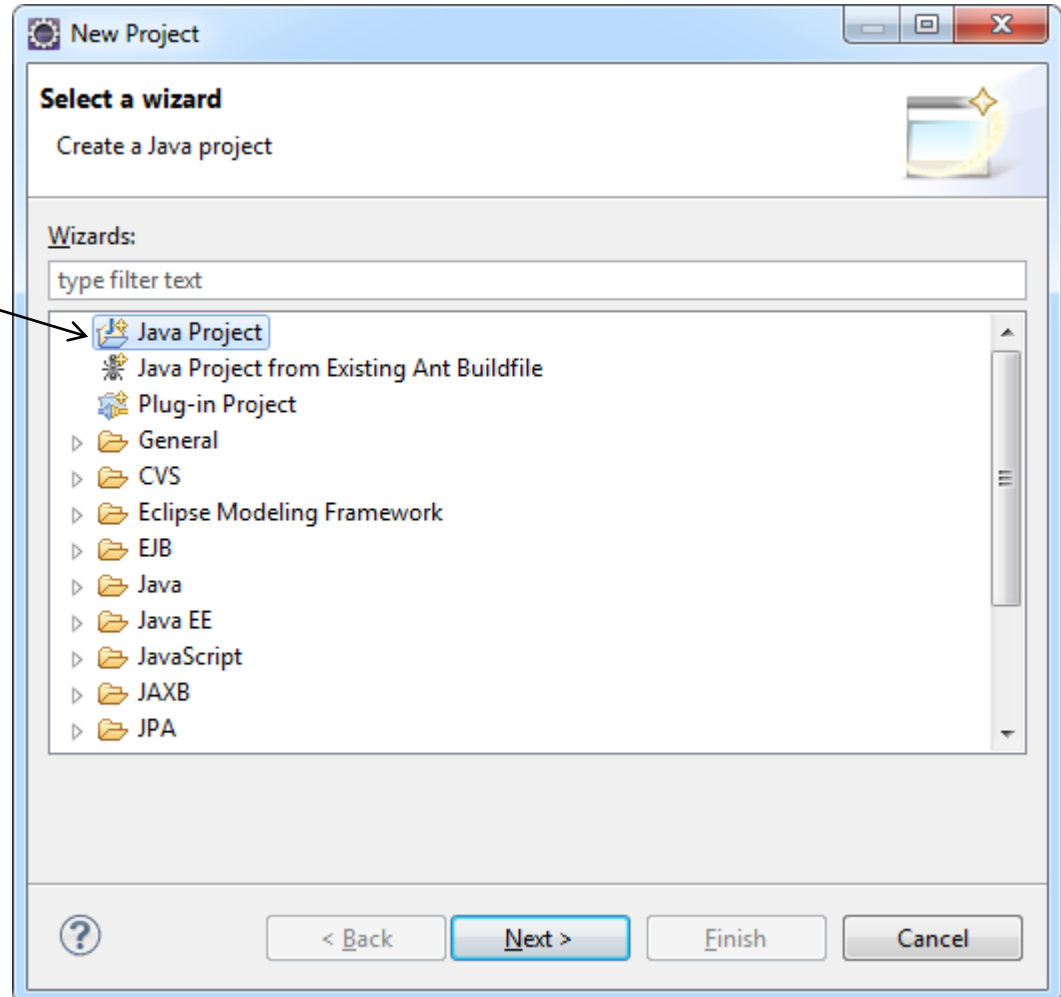
1- Na opção:

File

- New

-Project

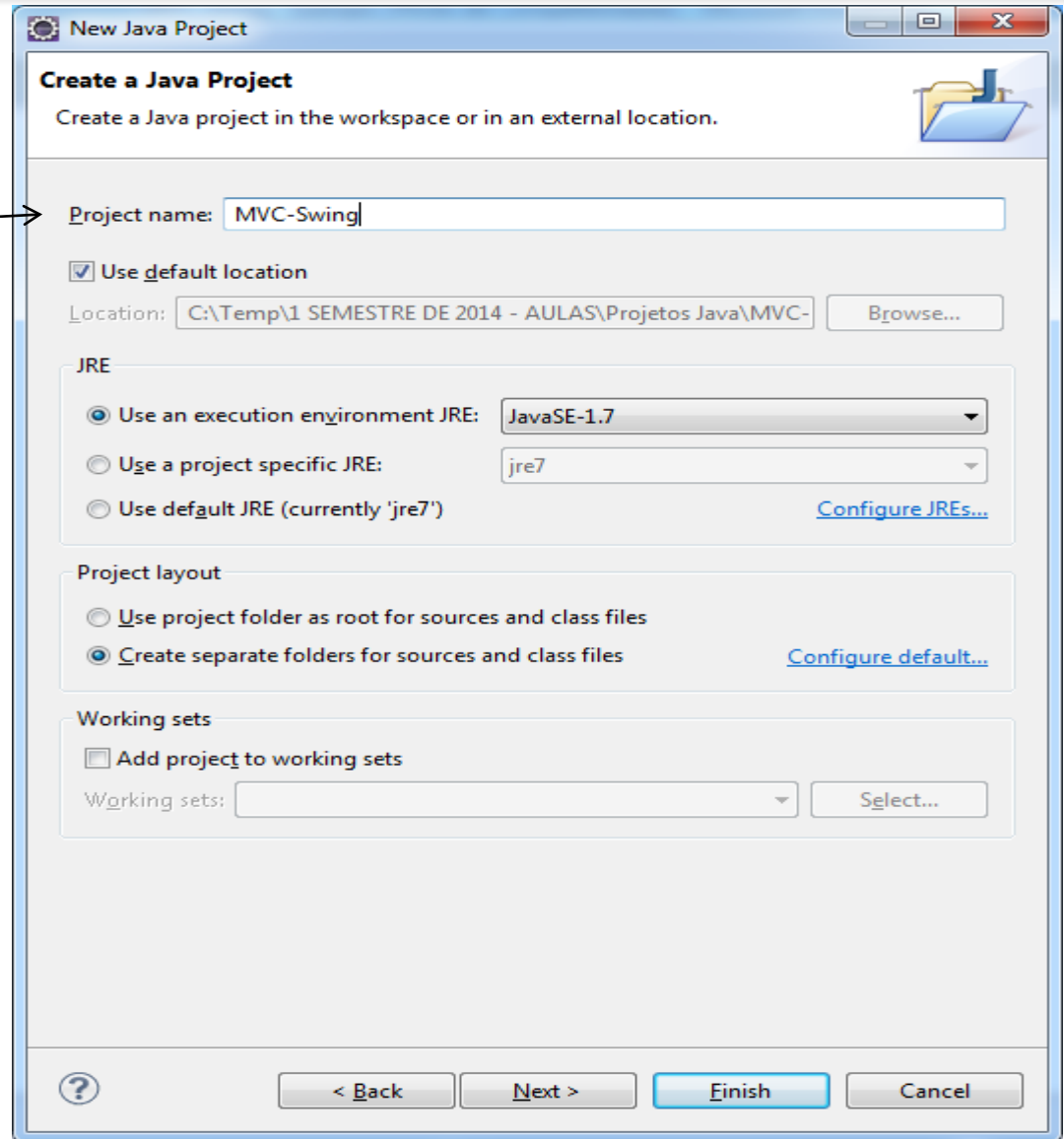
-Java Project



1 - Digite o nome do projeto:

**MVC-Swing**

2 - Clique em Finish



**New Java Project**

Create a Java project in the workspace or in an external location.

Project name: MVC-Swing

☒ Use default location

Location: C:\Temp\1 SEMESTRE DE 2014 - AULAS\Projetos Java\MVC- Browse...

**JRE**

☒ Use an execution environment JRE: JavaSE-1.7

☐ Use a project specific JRE: jre7

☐ Use default JRE (currently 'jre7') [Configure JREs...](#)

**Project layout**

☐ Use project folder as root for sources and class files

☒ Create separate folders for sources and class files [Configure default...](#)

**Working sets**

☐ Add project to working sets

Working sets:  Select...

[?](#) < Back Next > **Finish** Cancel

**Agora vamos construir a estrutura do Model View Controller (MVC).**

**Vamos criar os pacotes com base nos padrões JAVA.**

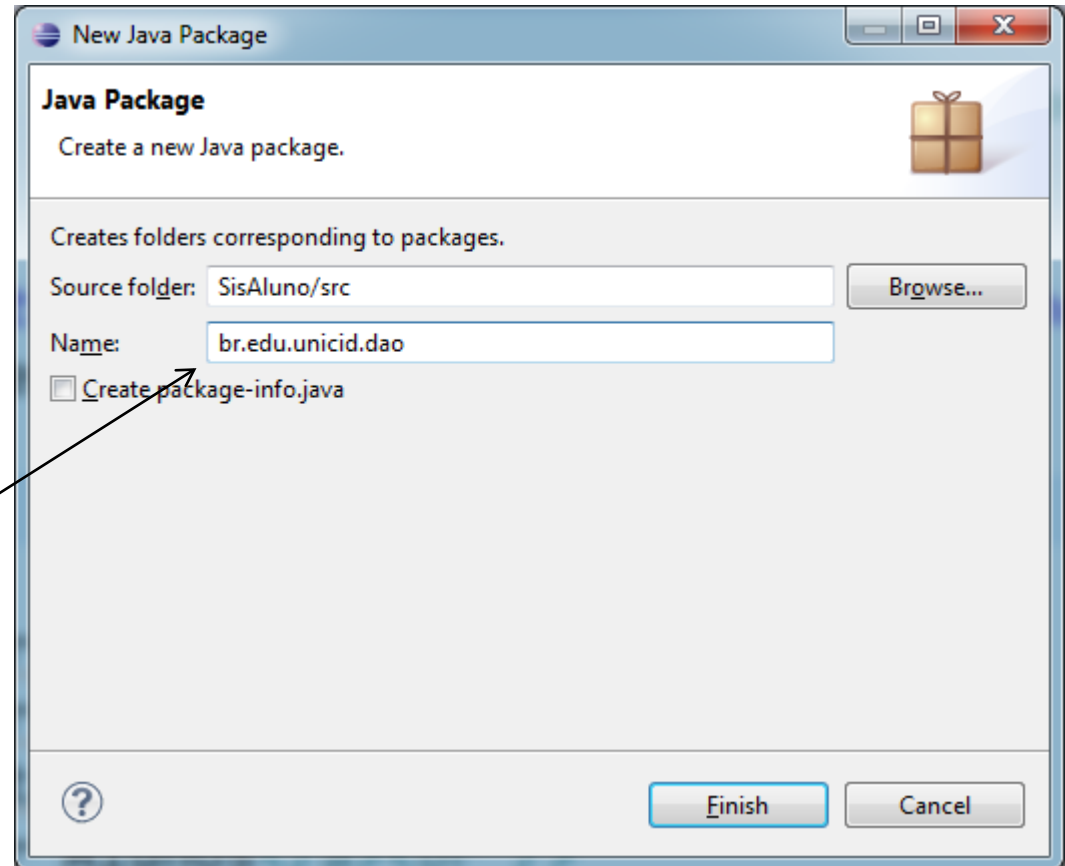
**Clique no projeto (MVC-Swing) com o botão esquerdo do mouse selecione:**

- New
- Package

**E vamos criar os seguintes pacotes:**

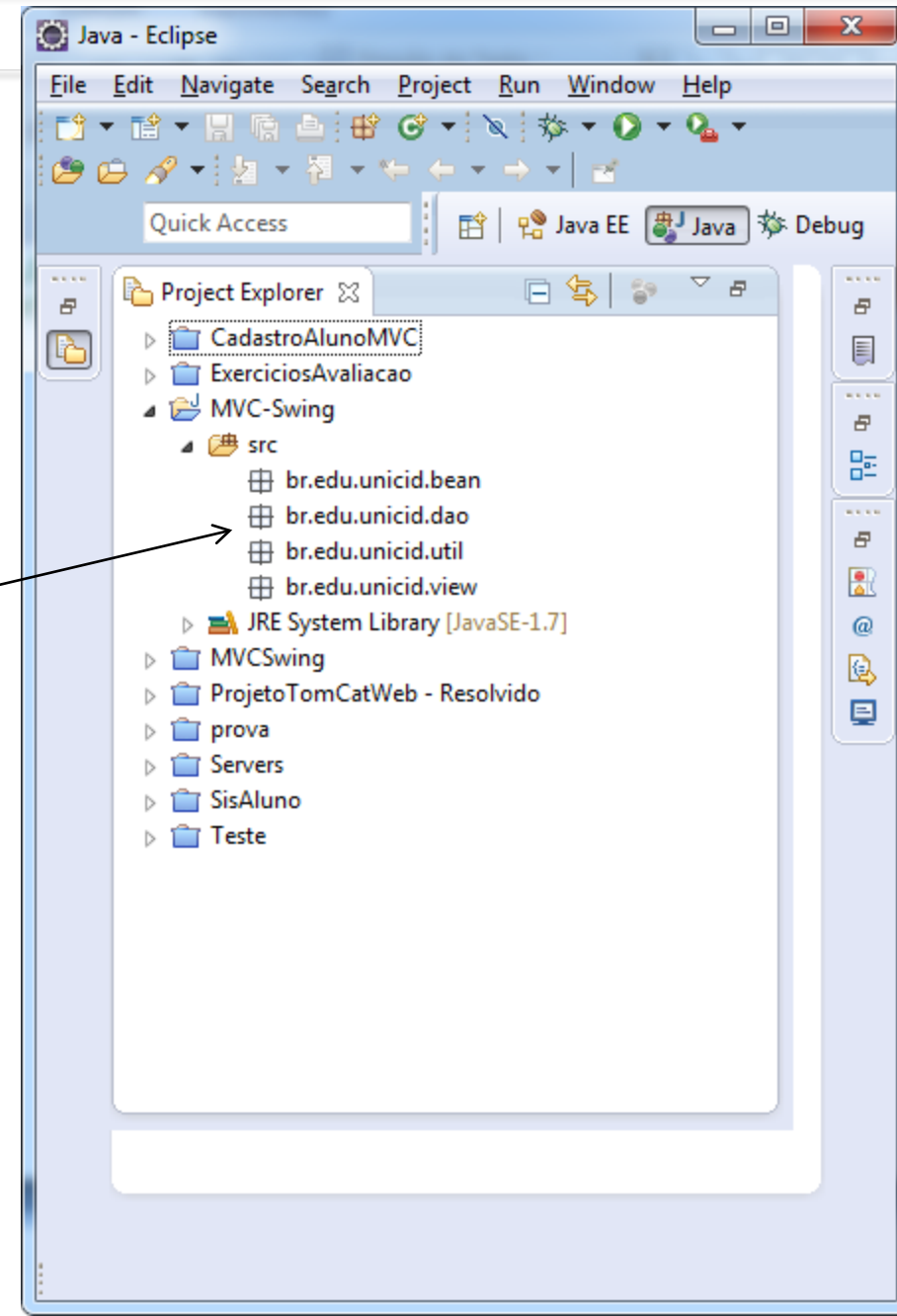
- br.edu.unicid.dao
- br.edu.unicid.view
- br.edu.unicid.util
- br.edu.unicid.bean

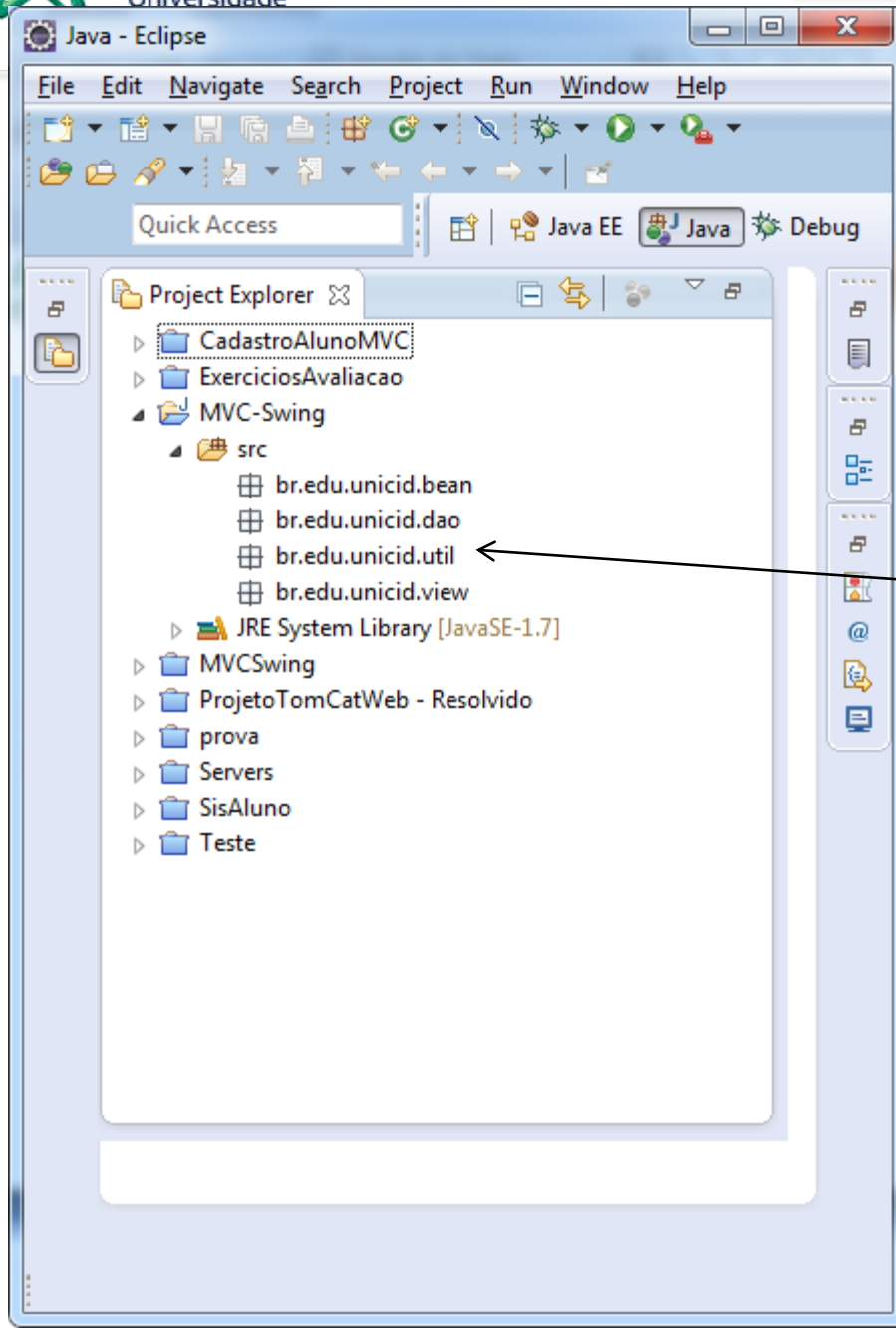
**Não esqueça de clicar em Finish.**





**Seu projeto deverá estar  
com está estrutura.**

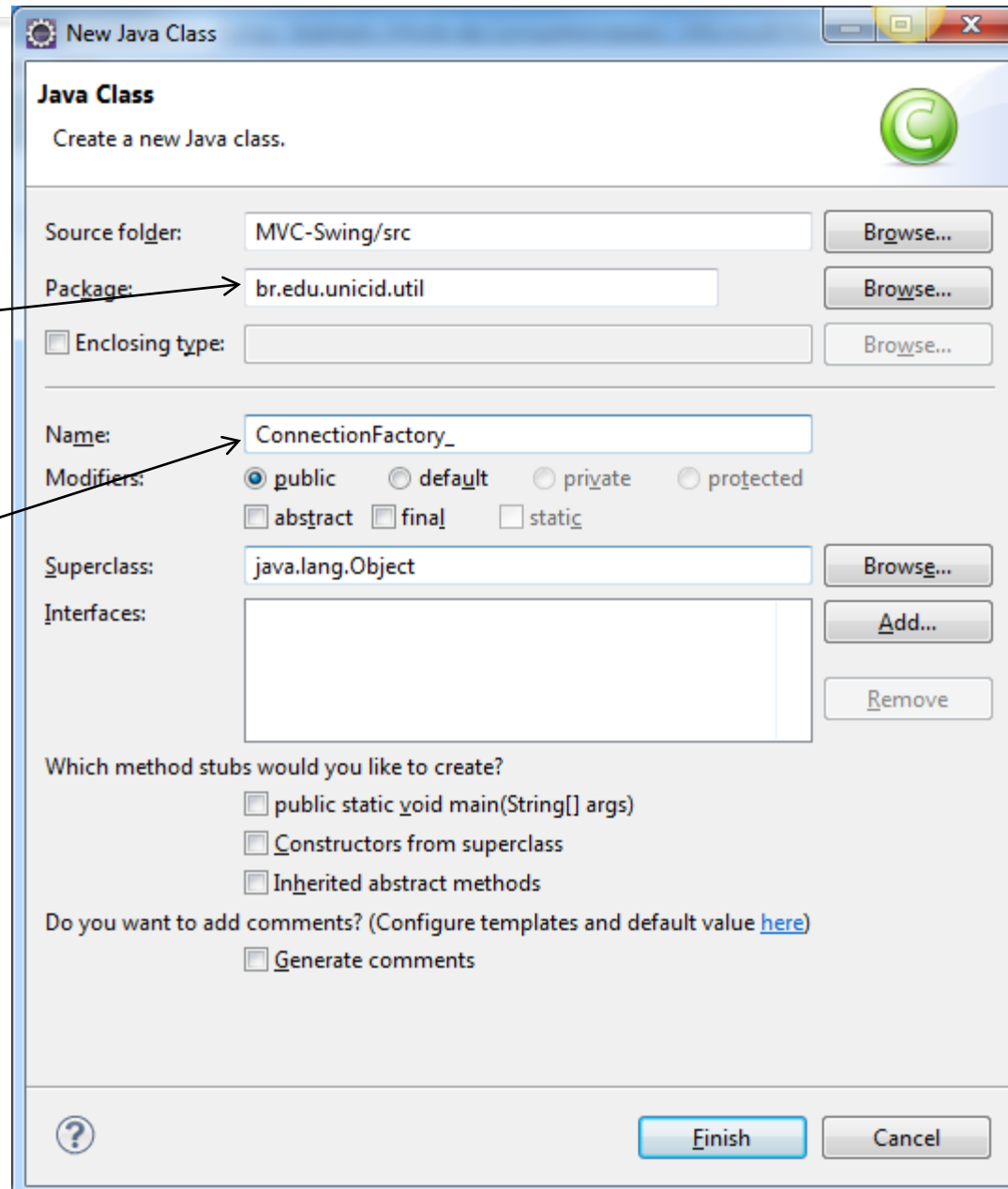




**Muito bem, com o botão do mouse em cima do pacote `br.edu.unicid.util`, vamos criar a classe de conexão com o banco de dados - `ConnectionFactory`**

**Pacote: br.edu.unicid.util**

**Classe ConnectionFactory**



**New Java Class**

Create a new Java class.

Source folder: MVC-Swing/src **Browse...**

Package: br.edu.unicid.util **Browse...**

☐ Enclosing type: **Browse...**

Name: ConnectionFactory\_

Modifiers: ☒ public ☐ default ☐ private ☐ protected  
☐ abstract ☐ final ☐ static

Superclass: java.lang.Object **Browse...**

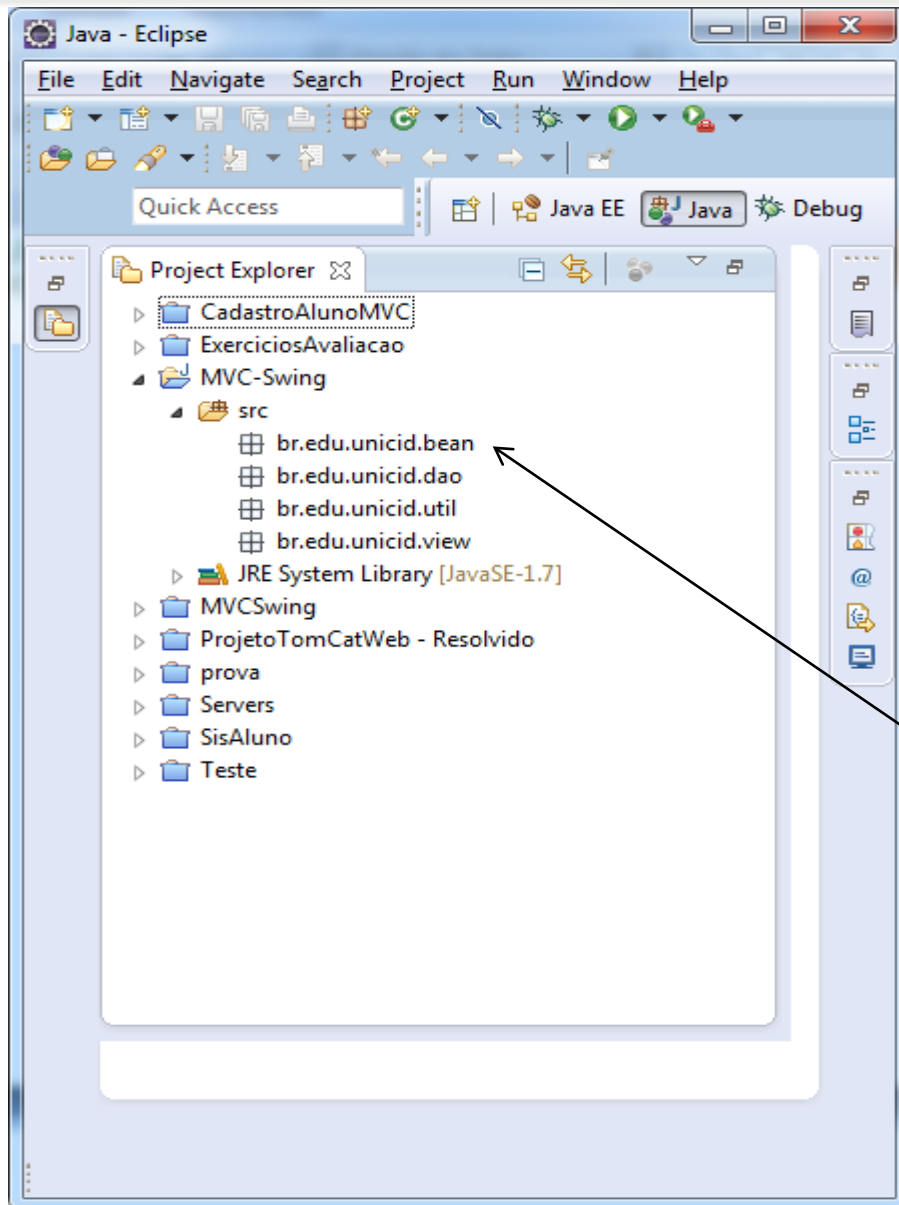
Interfaces: **Add...**  
**Remove**

Which method stubs would you like to create?

☐ public static void main(String[] args)  
☐ Constructors from superclass  
☐ Inherited abstract methods

Do you want to add comments? (Configure templates and default value [here](#))  
☐ Generate comments

**Finish** **Cancel**

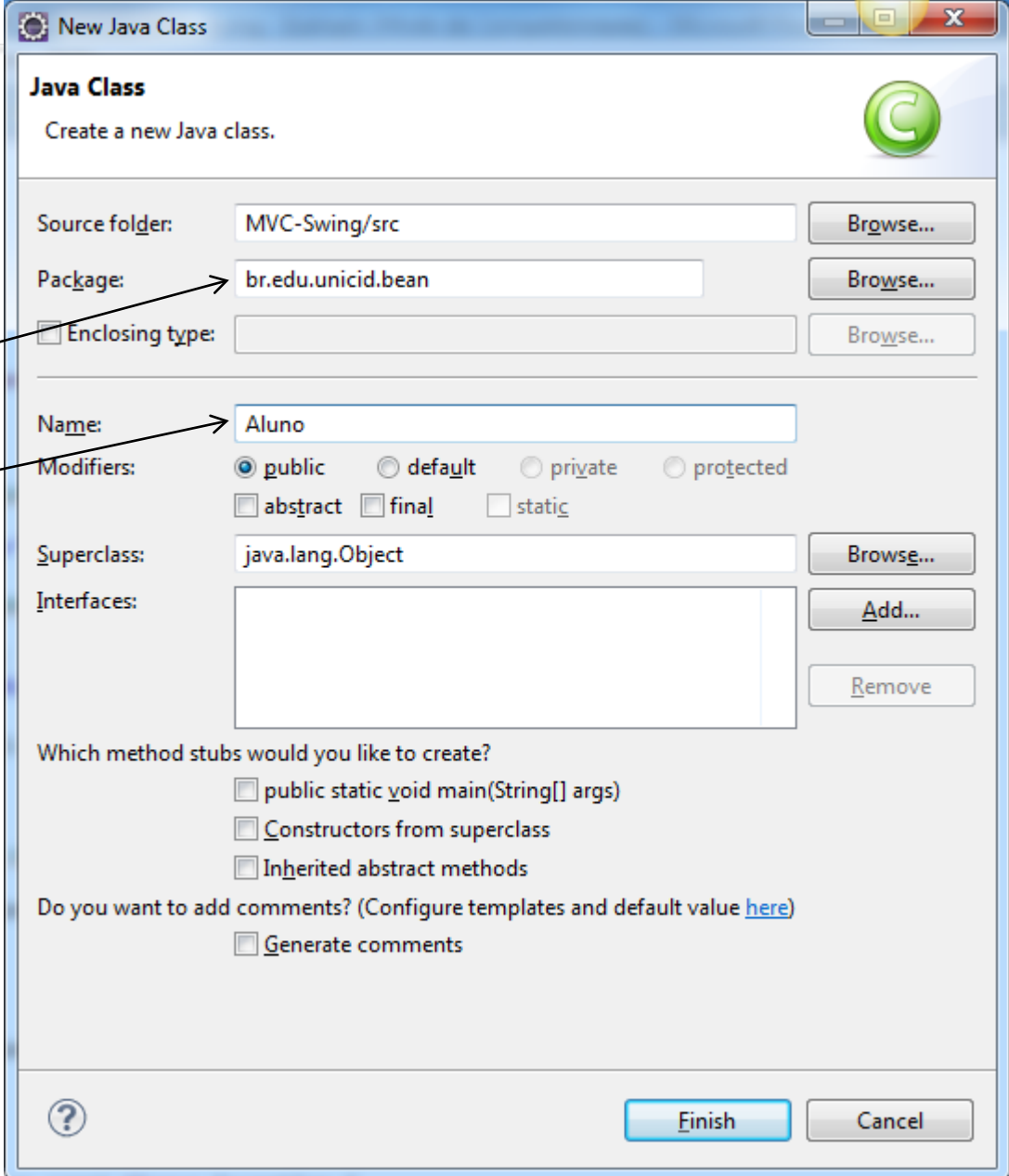


**Vamos criar agora a classe Alunos, esta classe é um POJO ou JavaBean, uma classe com métodos construtores e getters e setters.**

**Com o botão do mouse em cima do pacote `br.edu.unicid.bean`, crie uma classe Java com o nome de Aluno.**

**Pacote: br.edu.unicid.bean**

**Classe Aluno**



**New Java Class**

Create a new Java class.

Source folder: MVC-Swing/src Browse...

Package: br.edu.unicid.bean Browse...

☐ Enclosing type: Browse...

Name: Aluno

Modifiers: ☒ public ☐ default ☐ private ☐ protected  
☐ abstract ☐ final ☐ static

Superclass: java.lang.Object Browse...

Interfaces: Add... Remove

Which method stubs would you like to create?

☐ public static void main(String[] args)

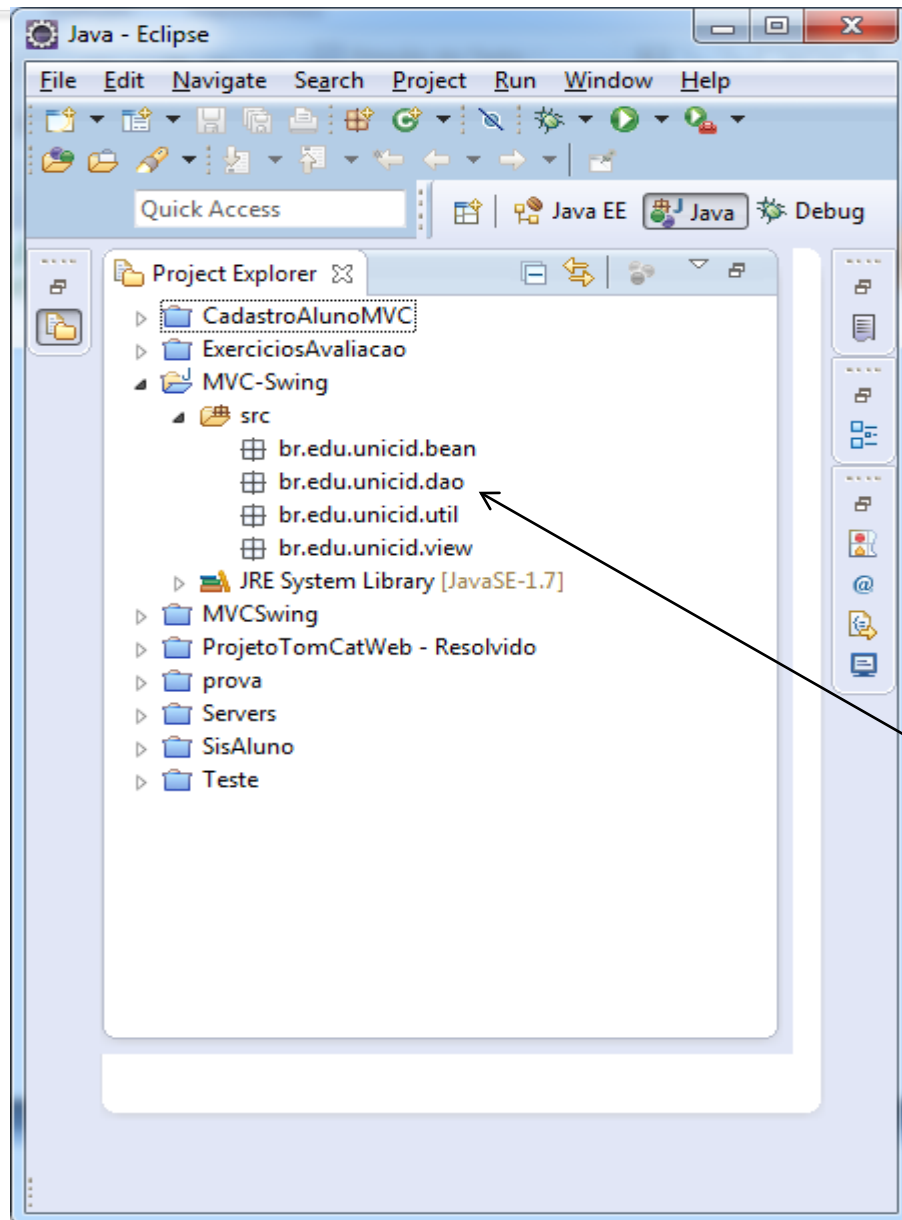
☐ Constructors from superclass

☐ Inherited abstract methods

Do you want to add comments? (Configure templates and default value [here](#))

☐ Generate comments

? Finish Cancel



**Vamos criar agora a classe AlunosDAO, esta classe implementa o CRUD.**

**C - CREATE**

**R - READ**

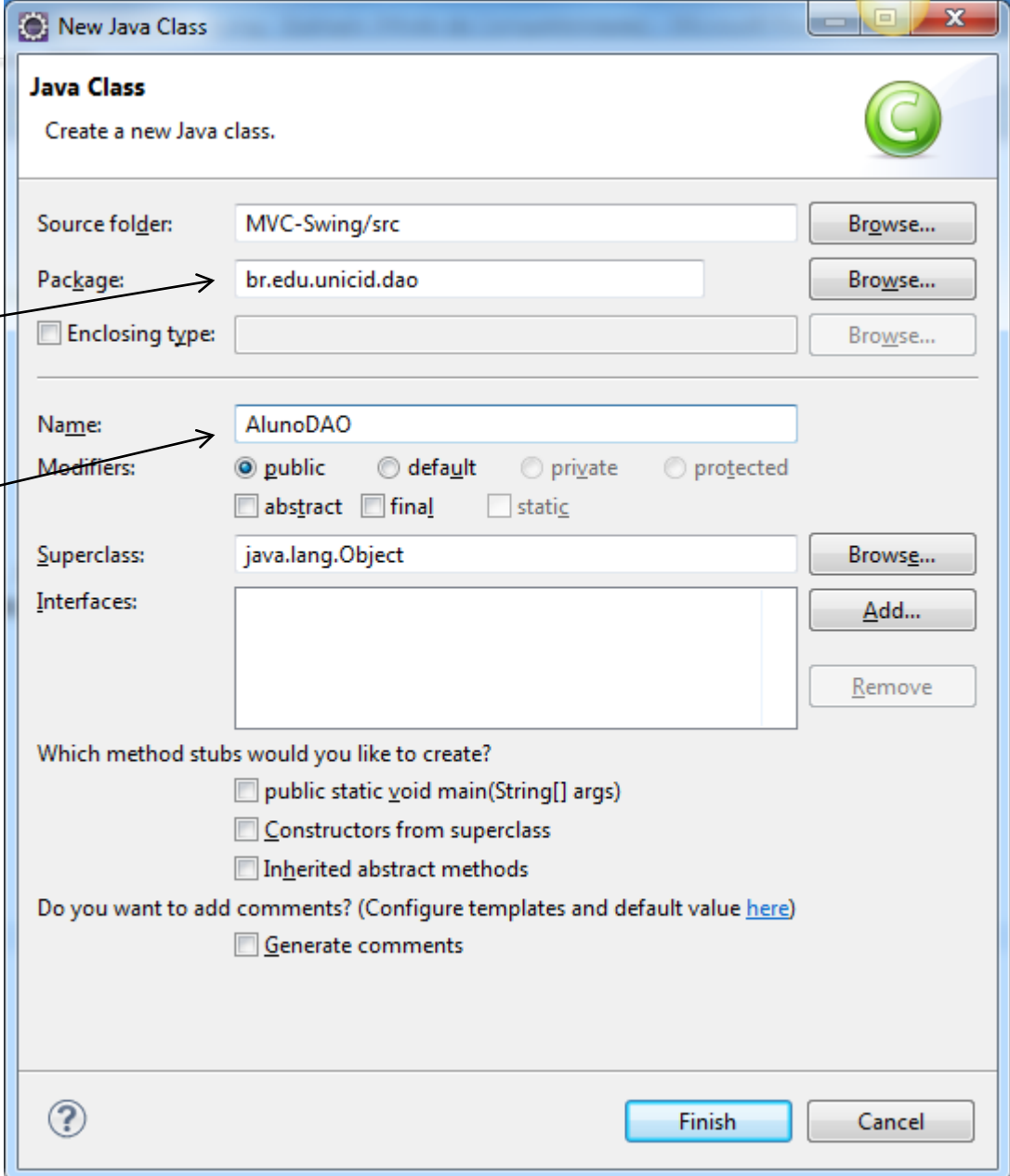
**U - UPDATE**

**D - DELETE**

**Com o botão do mouse em cima do pacote br.edu.unicid.dao, crie uma classe Java com o nome de AlunosDAO.**

**Pacote: br.edu.unicid.dao**

**Classe AlunoDAO**



**New Java Class**

Create a new Java class.

Source folder: MVC-Swing/src Browse...

Package: br.edu.unicid.dao Browse...

☐ Enclosing type: Browse...

Name: AlunoDAO

Modifiers: ☒ public ☐ default ☐ private ☐ protected  
☐ abstract ☐ final ☐ static

Superclass: java.lang.Object Browse...

Interfaces: Add...  
Remove

Which method stubs would you like to create?

☐ public static void main(String[] args)

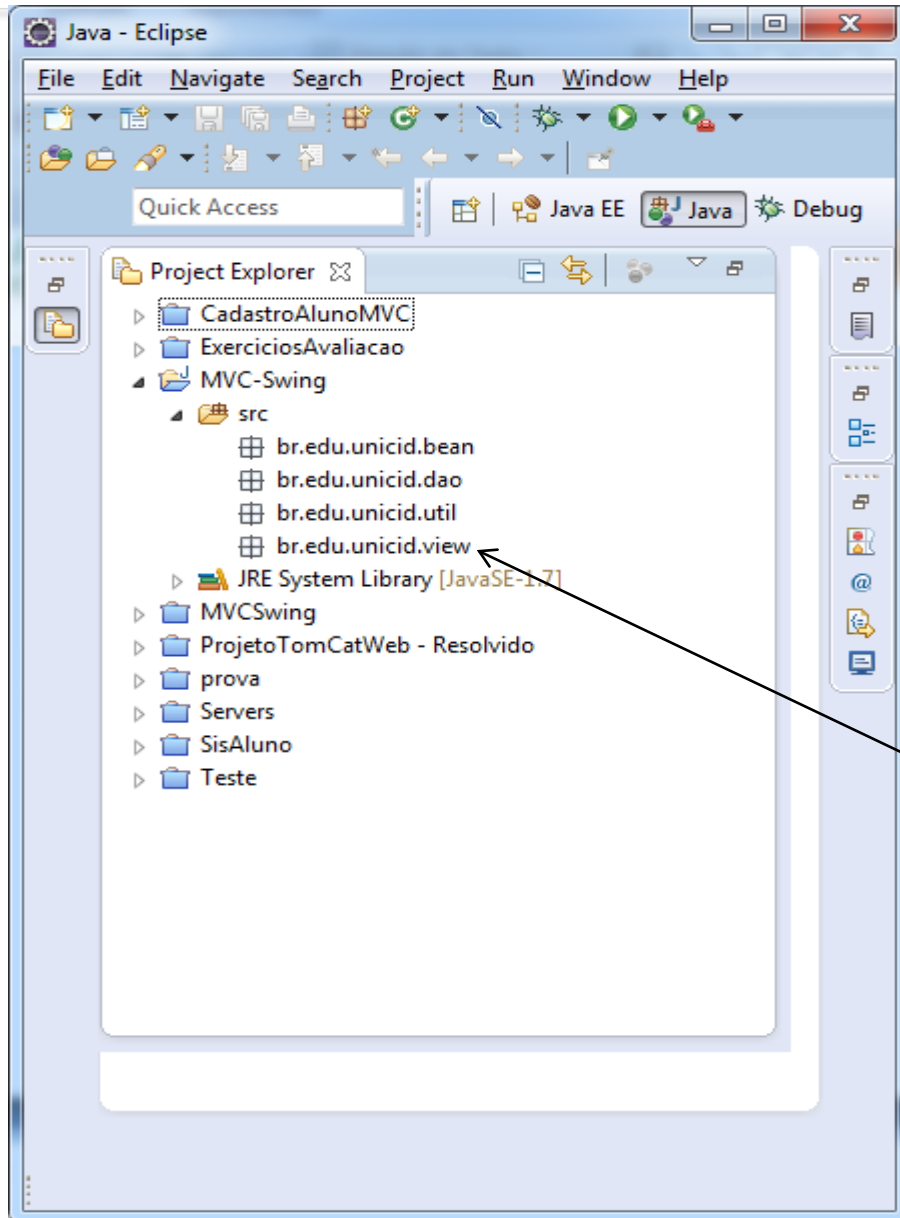
☐ Constructors from superclass

☐ Inherited abstract methods

Do you want to add comments? (Configure templates and default value [here](#))

☐ Generate comments

? Finish Cancel



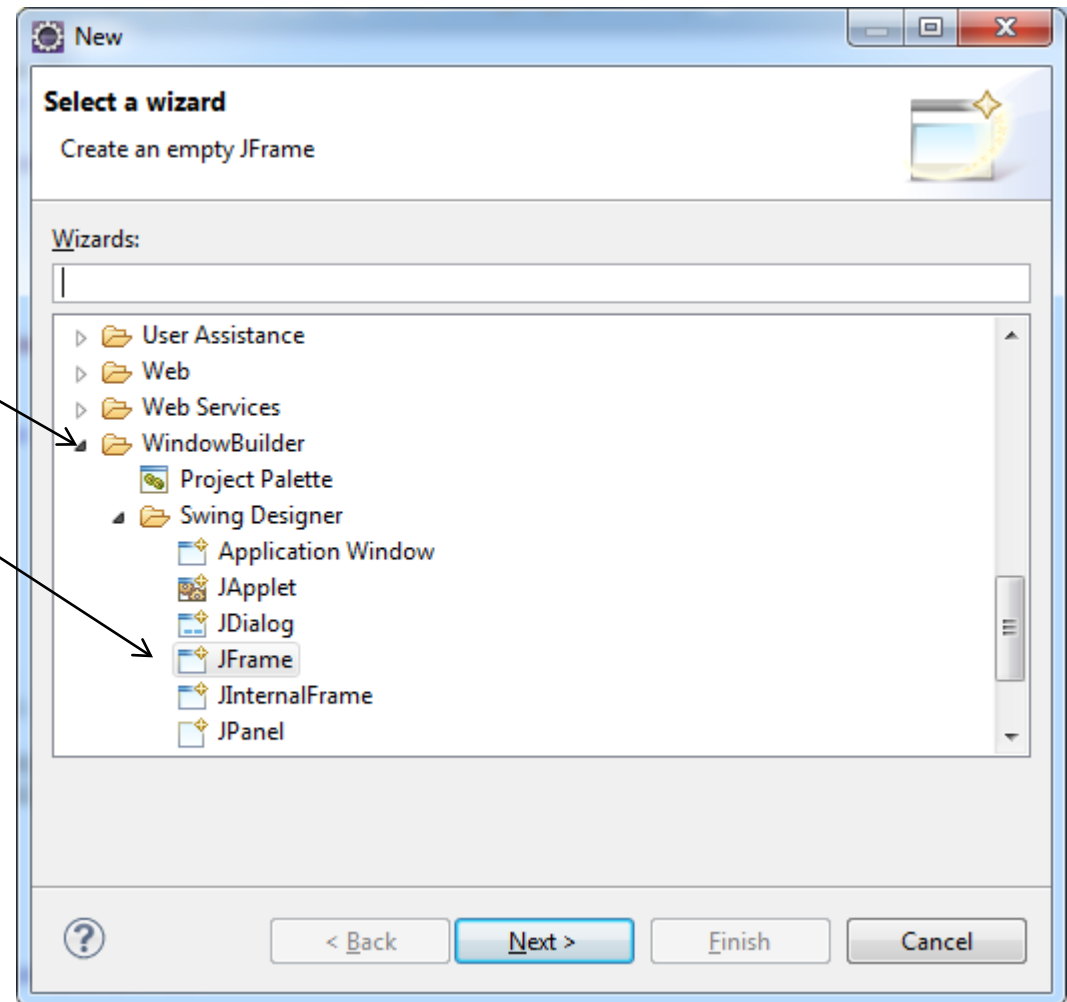
**Vamos criar agora a classe TelaApresentacao, esta classe implementa a interface gráfica.**

**Usaremos o plug-in do Google – WindowBuilder.**

**Com o botão do mouse em cima do pacote br.edu.unicid.view, crie uma classe Java com o nome de TelaApresentacao.**

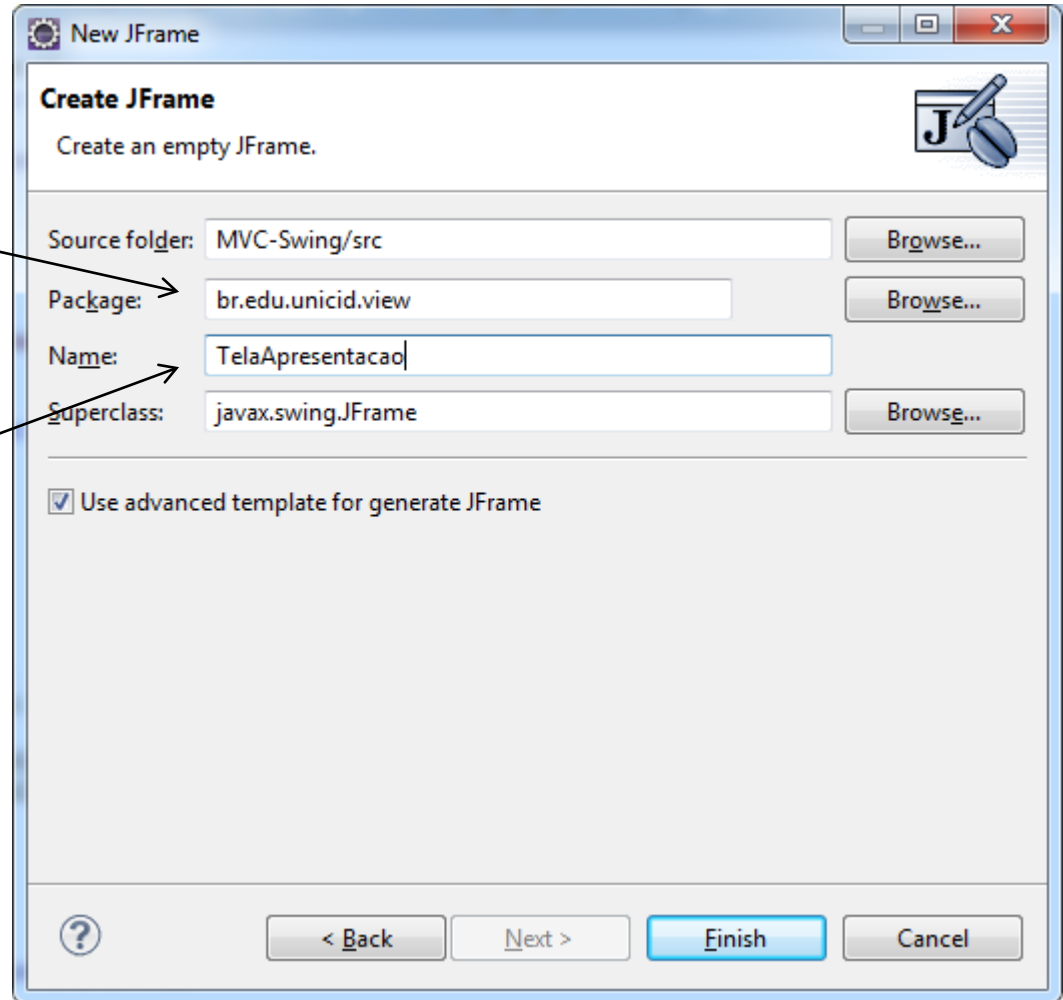


**A classe TelaApresentacao deve ser do tipo JFrame, que se encontra dentro da pasta WindowBuilder.**



**Pacote: br.edu.unicid.view**

**Classe TelaApresentacao**



The image shows a 'New JFrame' dialog box from an IDE. It has a title bar with a gear icon and the text 'New JFrame'. The main area is titled 'Create JFrame' with a subtext 'Create an empty JFrame.' and a small icon of a document with a pencil. There are four input fields: 'Source folder' with 'MVC-Swing/src', 'Package' with 'br.edu.unicid.view', 'Name' with 'TelaApresentacao', and 'Superclass' with 'javax.swing.JFrame'. Each field has a 'Browse...' button to its right. At the bottom, there is a checkbox labeled 'Use advanced template for generate JFrame' which is checked. The bottom of the dialog has a help icon (question mark) and four buttons: '< Back', 'Next >', 'Finish' (highlighted in blue), and 'Cancel'.

**Create JFrame**  
Create an empty JFrame.

Source folder: MVC-Swing/src Browse...

Package: br.edu.unicid.view Browse...

Name: TelaApresentacao

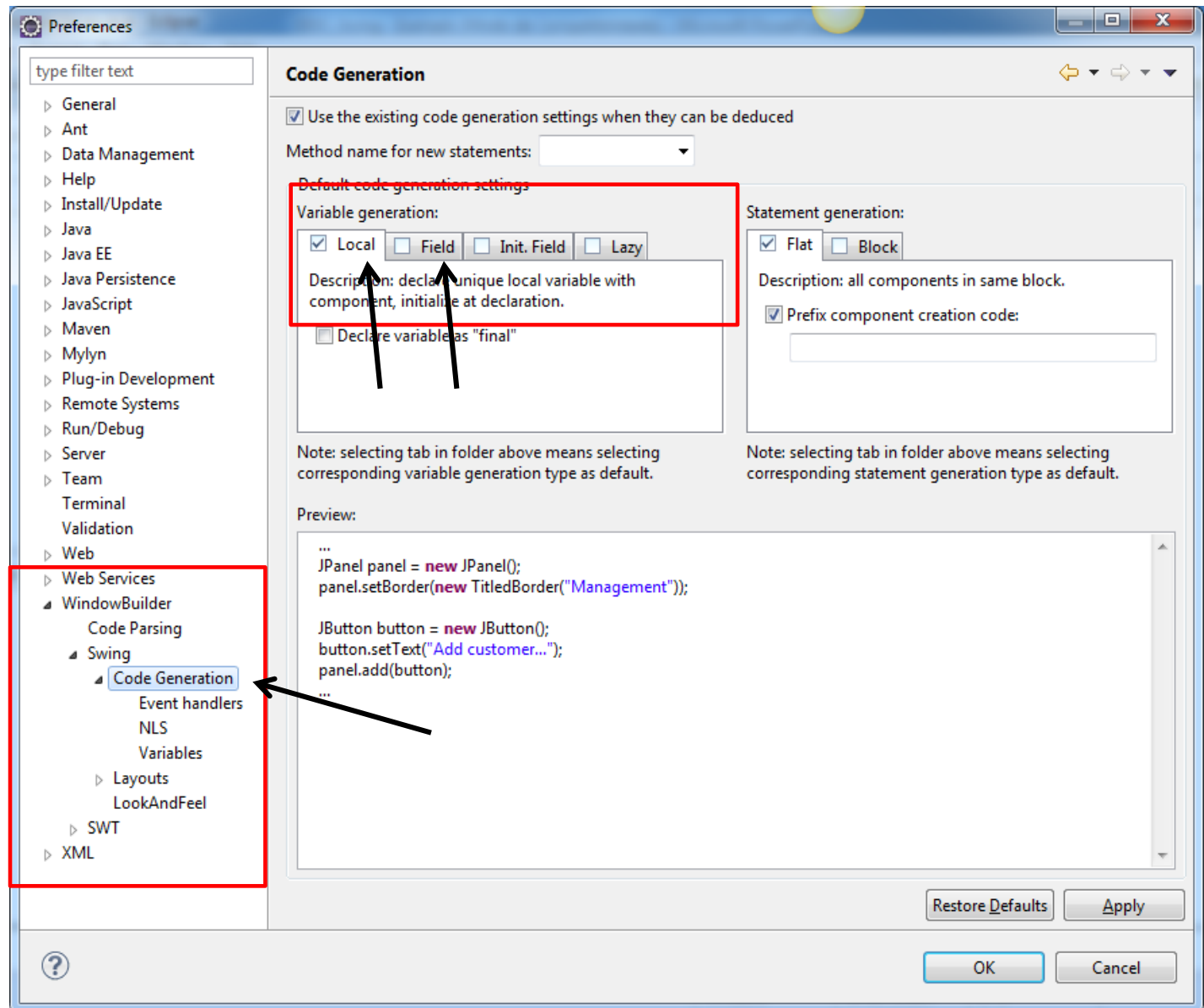
Superclass: javax.swing.JFrame Browse...

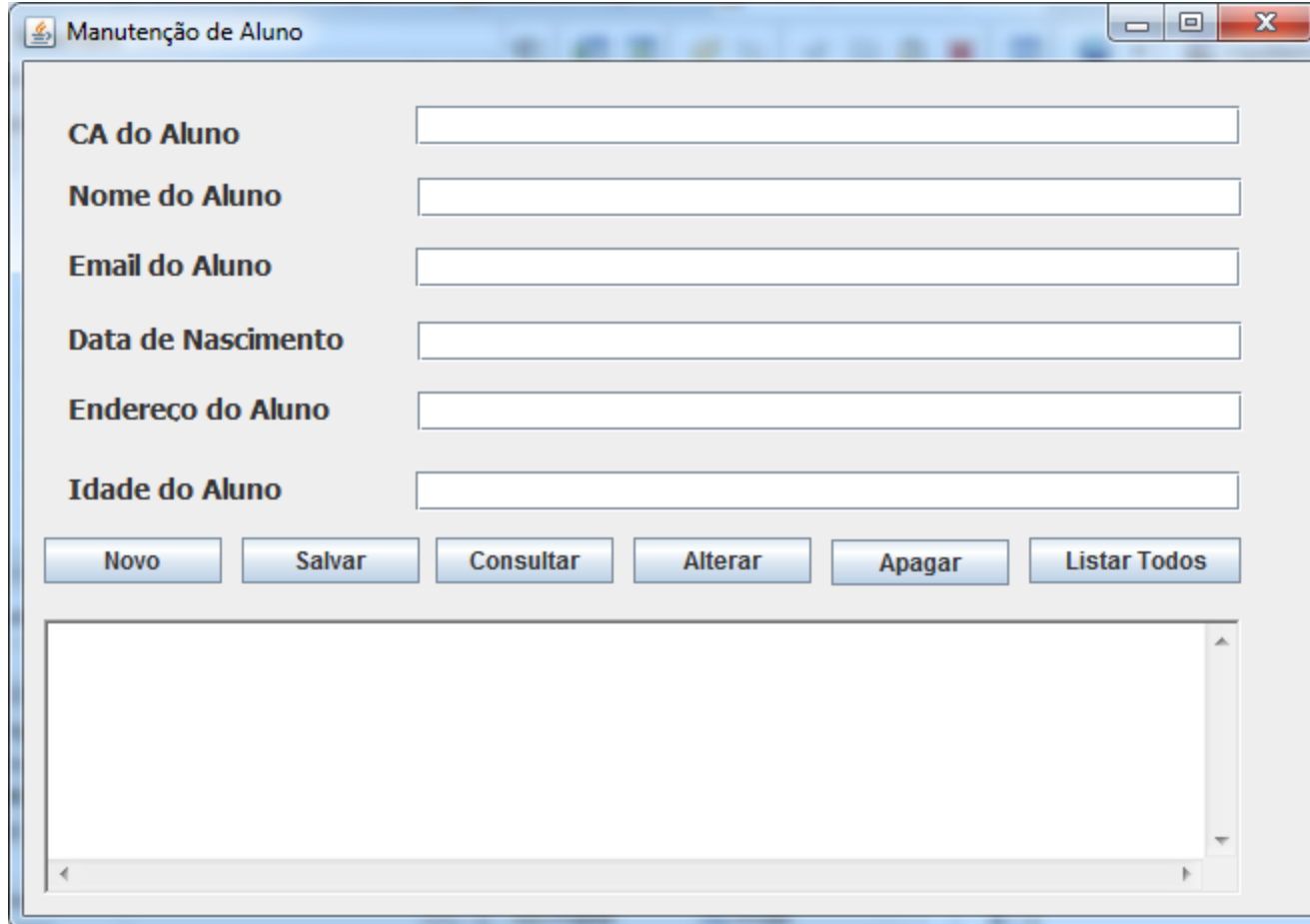
☒ Use advanced template for generate JFrame

? < Back Next > Finish Cancel

Antes de montar o formulário, selecione a opção :  
**Window Preferences**  
**Code Generation**  
E altere a opção variable generation de Local para Field.

Desta forma todos os componentes criados serão "Globais".





Manutenção de Aluno

CA do Aluno

Nome do Aluno

Email do Aluno

Data de Nascimento

Endereço do Aluno

Idade do Aluno

Novo Salvar Consultar Alterar Apagar Listar Todos