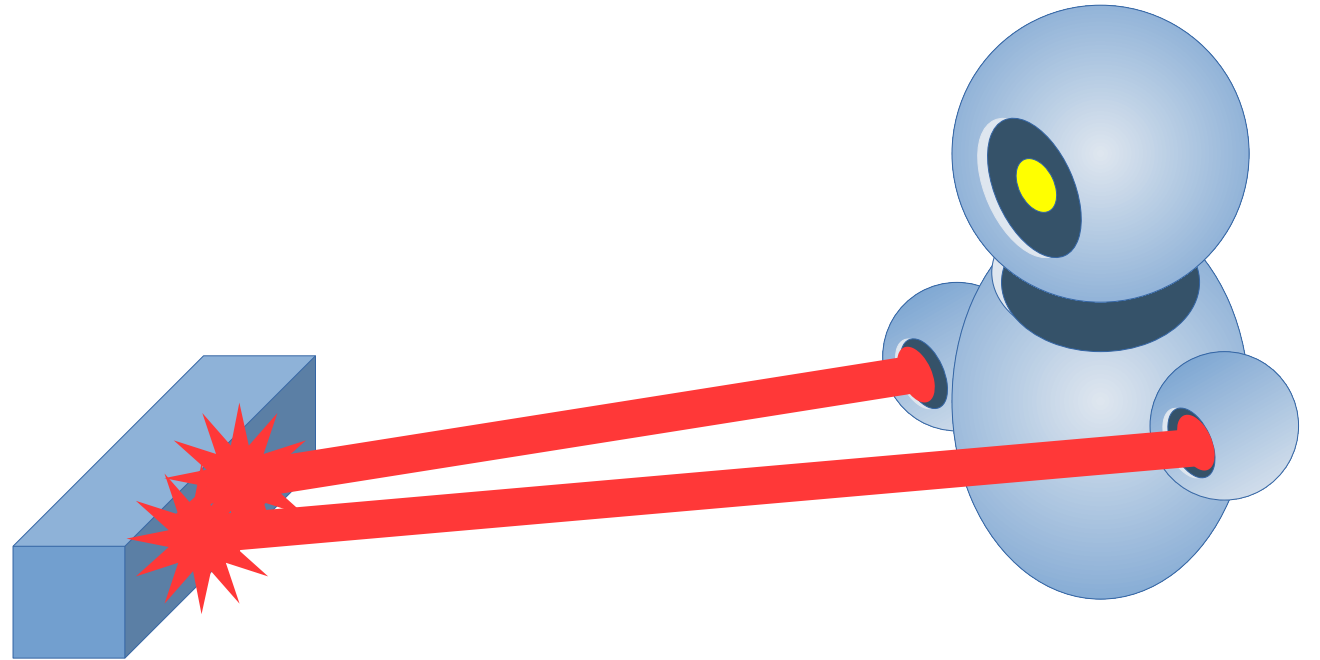
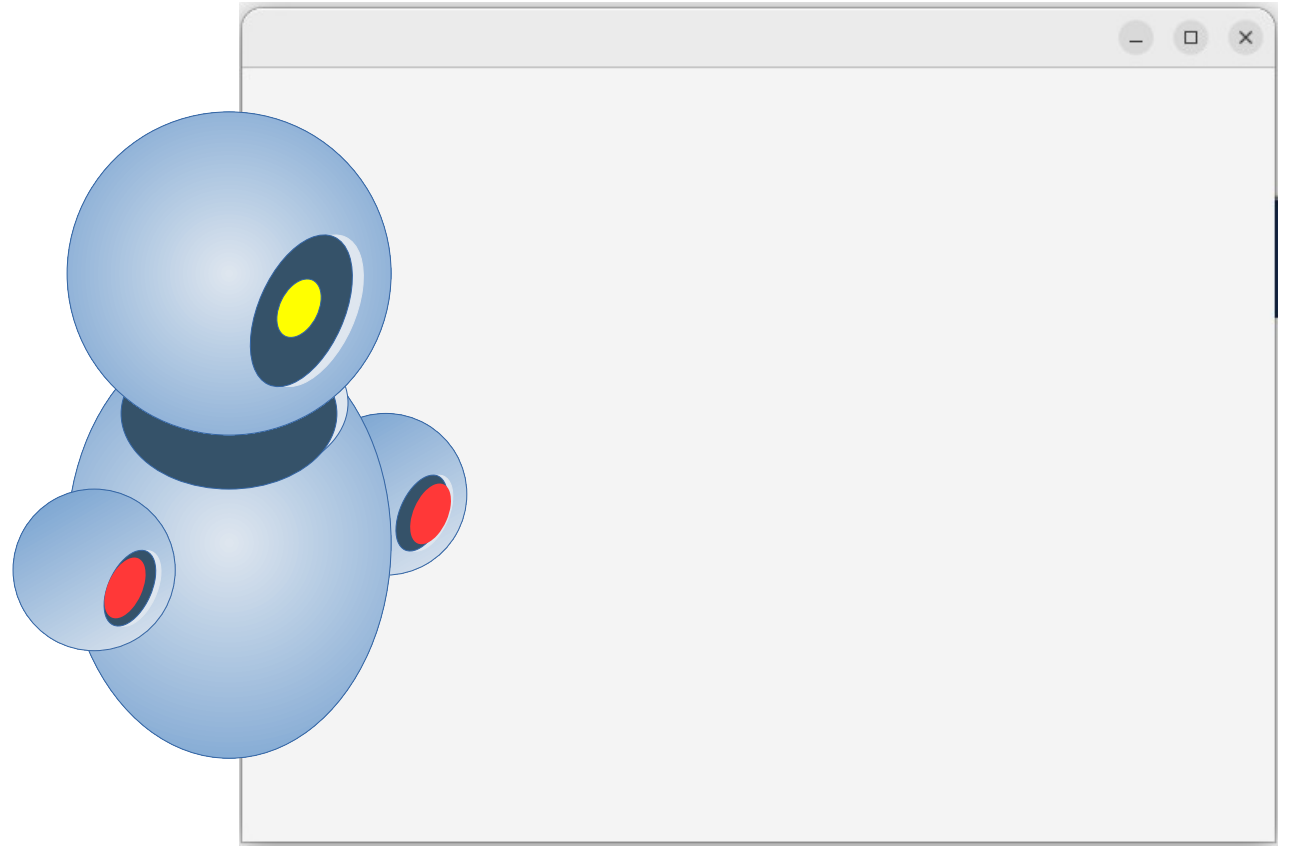


THE CHON GAME IN JAVA



MY FIRST JAVA FX APPLICATION

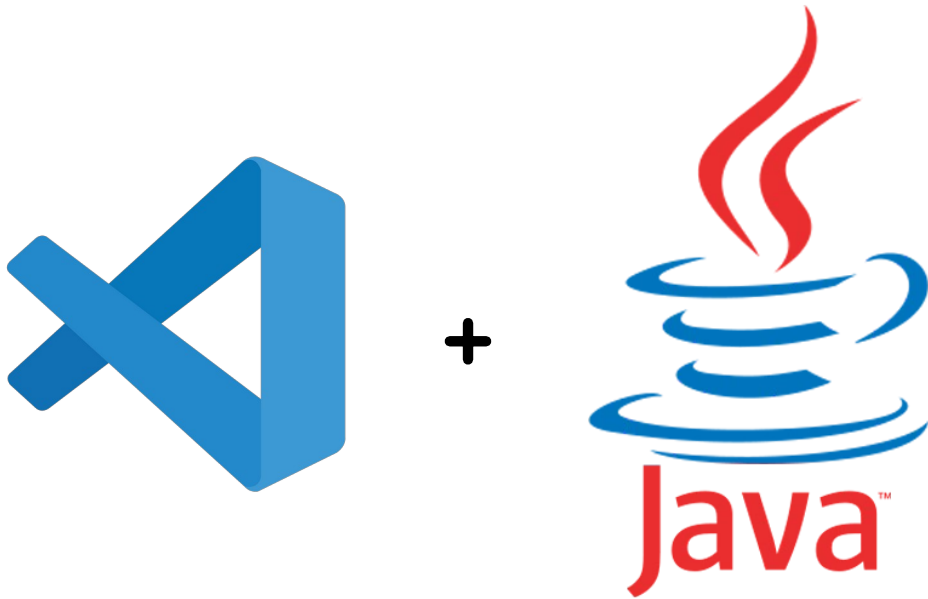


JavaFX is a comprehensive software platform for creating and programming client and cross-platform desktop applications.

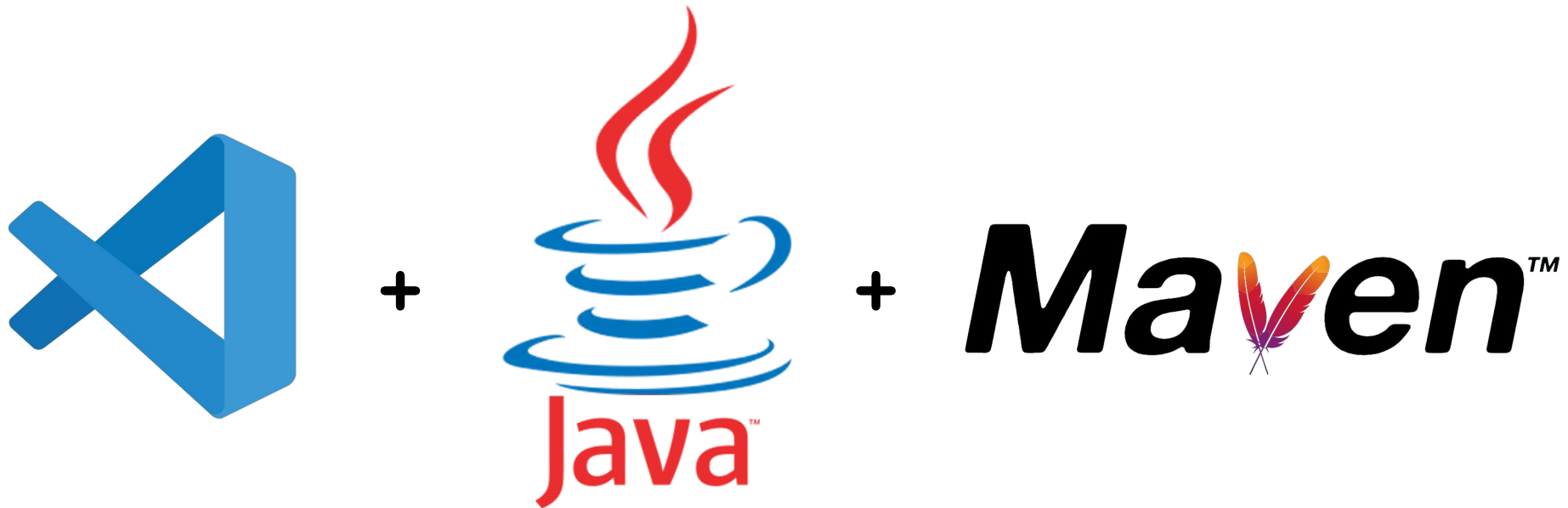
Project Technologies



Project Technologies



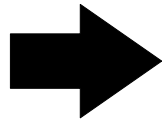
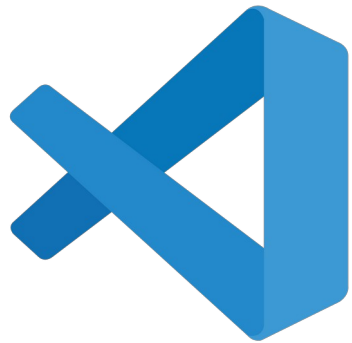
Project Technologies



Project Technologies







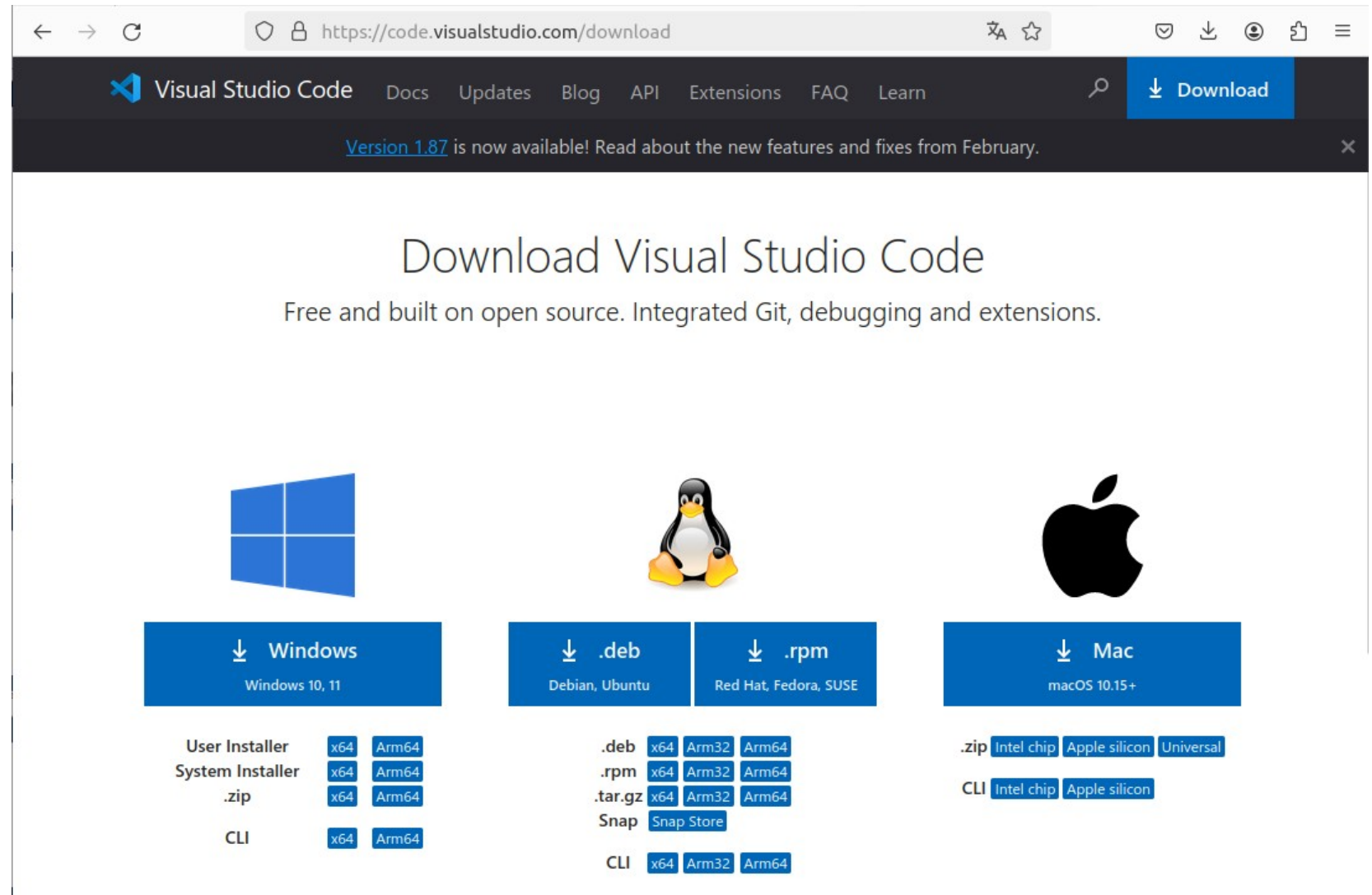
← → ↻ <https://code.visualstudio.com/download> 🌐 ☆ 📧 ⬇️ 👤 📄 ☰

Visual Studio Code Docs Updates Blog API Extensions FAQ Learn 🔍 [⬇️ Download](#)

[Version 1.87](#) is now available! Read about the new features and fixes from February. ✕


Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.



⬇️ **Windows**
Windows 10, 11


User Installer	x64	Arm64
System Installer	x64	Arm64
.zip	x64	Arm64
CLI	x64	Arm64



⬇️ **.deb**
Debian, Ubuntu

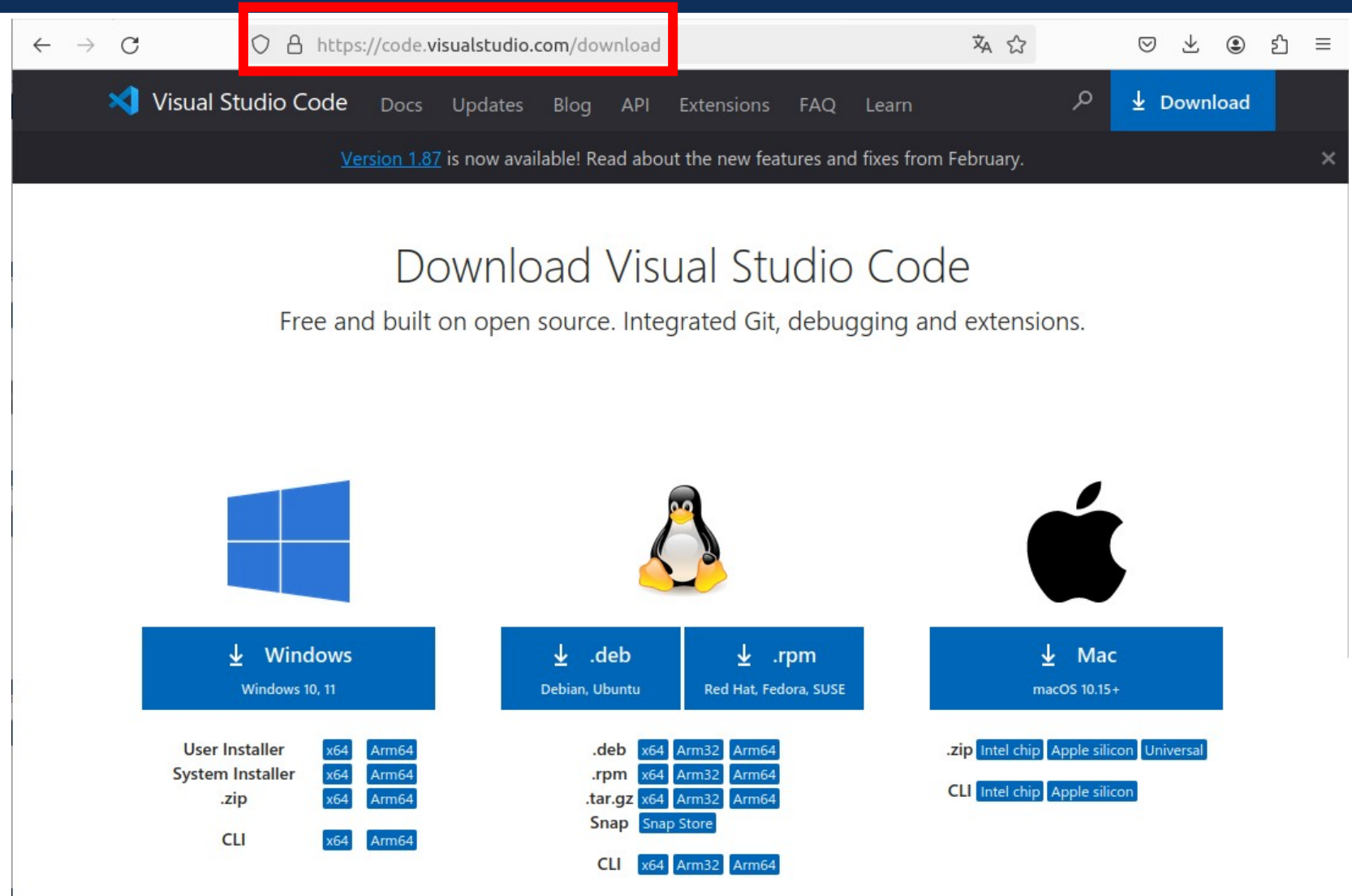
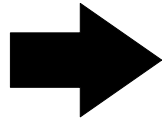
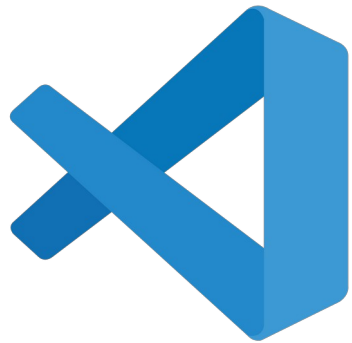
⬇️ **.rpm**
Red Hat, Fedora, SUSE

.deb	x64	Arm32	Arm64
.rpm	x64	Arm32	Arm64
.tar.gz	x64	Arm32	Arm64
Snap	Snap Store		
CLI	x64	Arm32	Arm64



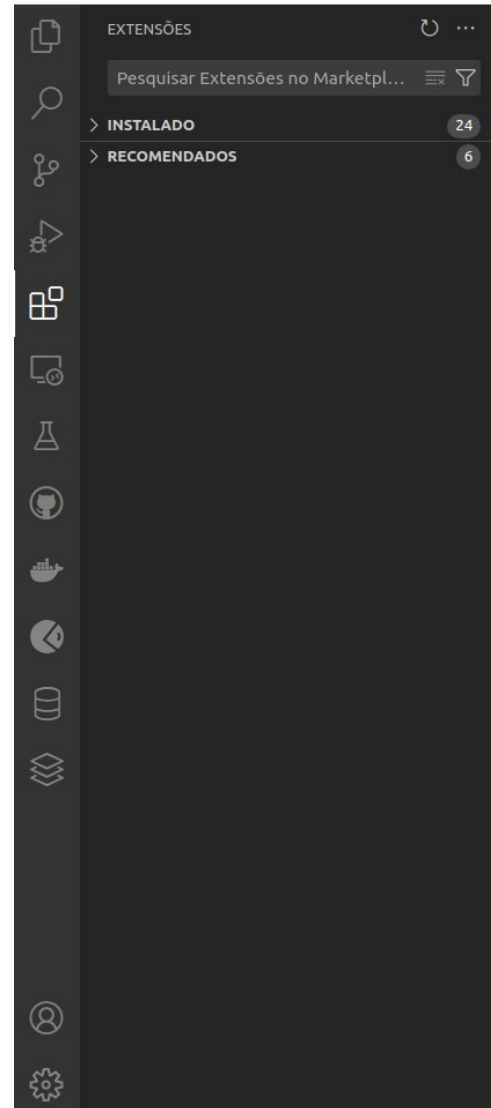
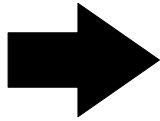
⬇️ **Mac**
macOS 10.15+

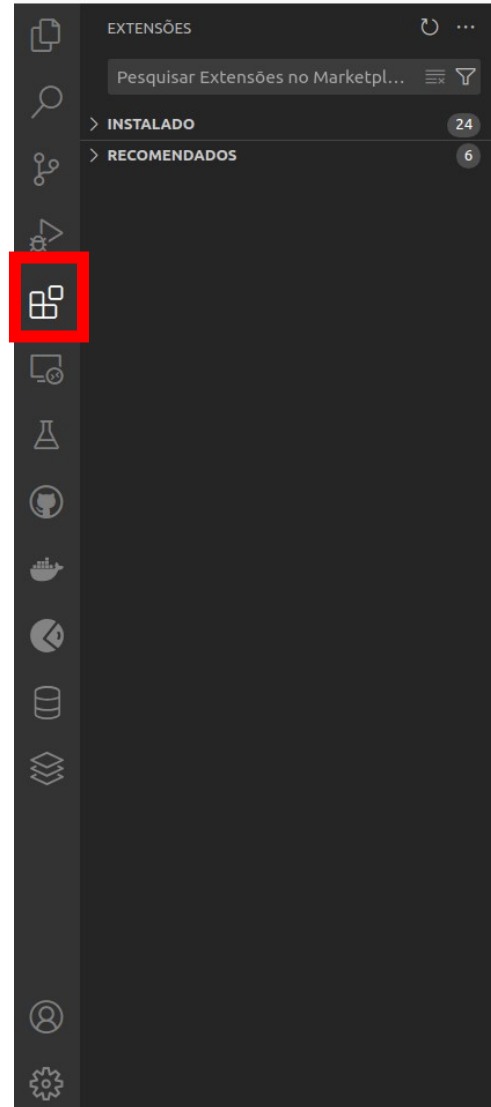
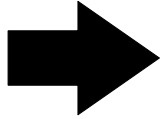
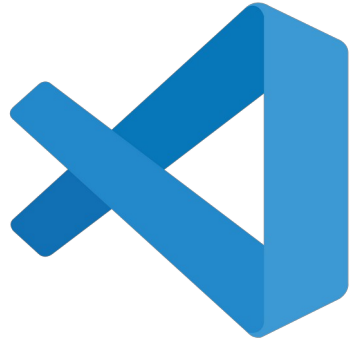
.zip	Intel chip	Apple silicon	Universal
CLI	Intel chip	Apple silicon	

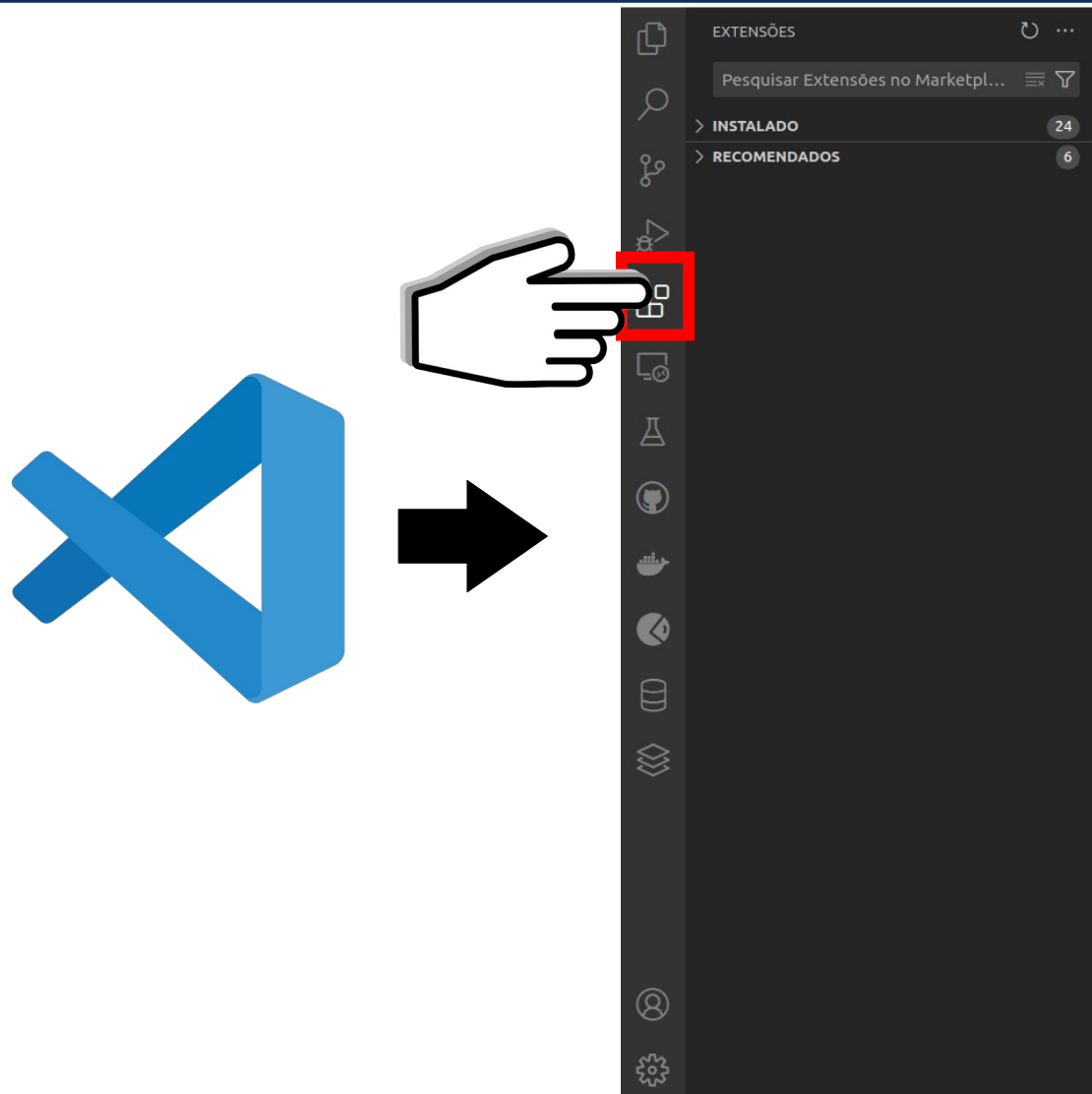


The screenshot shows the Visual Studio Code download page. The browser address bar is highlighted with a red box, showing the URL `https://code.visualstudio.com/download`. The page header includes the Visual Studio Code logo and navigation links: Docs, Updates, Blog, API, Extensions, FAQ, and Learn. A blue 'Download' button is in the top right. A banner below the header states 'Version 1.87 is now available! Read about the new features and fixes from February.' The main heading is 'Download Visual Studio Code' with the tagline 'Free and built on open source. Integrated Git, debugging and extensions.' Below this, there are three main sections for operating systems: Windows, Linux, and Mac. Each section has a download button and a list of available installers and their architectures.

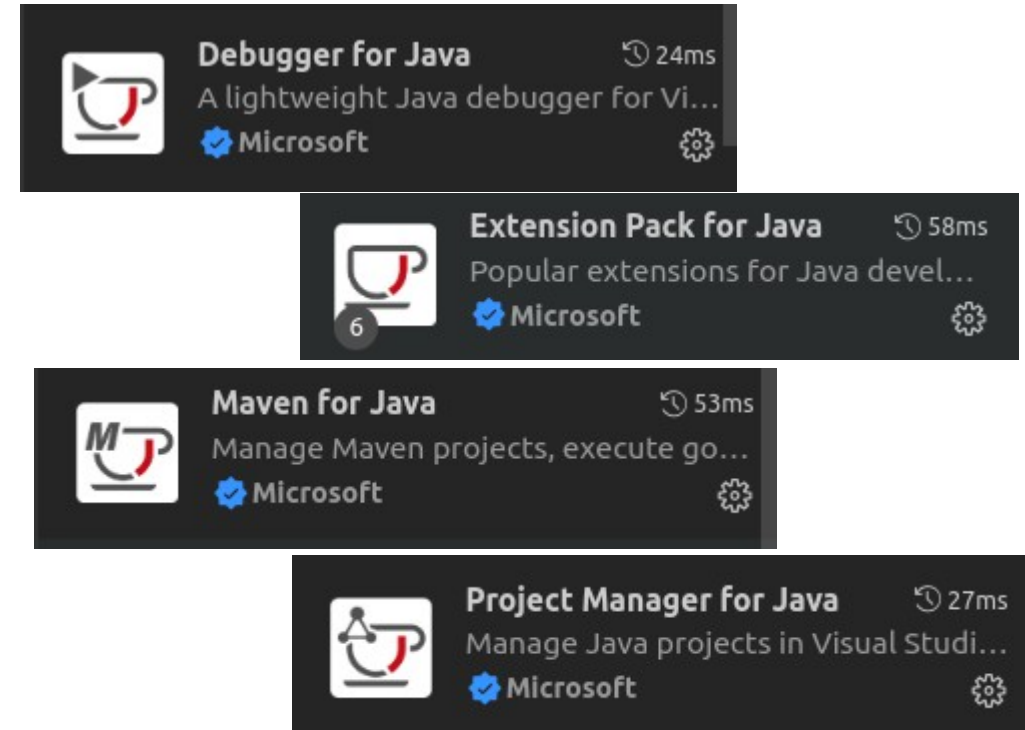
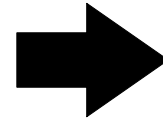
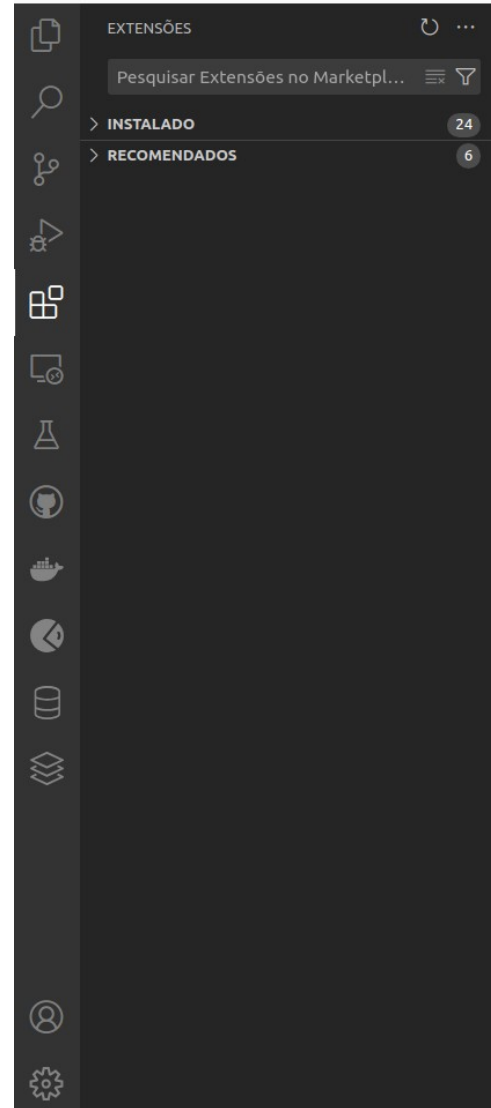
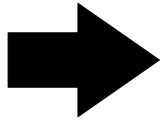
Operating System	Installer Type	Architecture	
Windows	User Installer	x64, Arm64	
	System Installer	x64, Arm64	
	.zip	x64, Arm64	
	CLI	x64, Arm64	
Linux	.deb	x64, Arm32, Arm64	
		x64, Arm32, Arm64	
	.rpm	x64, Arm32, Arm64	
		x64, Arm32, Arm64	
	.tar.gz	x64, Arm32, Arm64	
	Snap	Snap Store	
	CLI	x64, Arm32, Arm64	
	Mac	.zip	Intel chip, Apple silicon, Universal
		CLI	Intel chip, Apple silicon



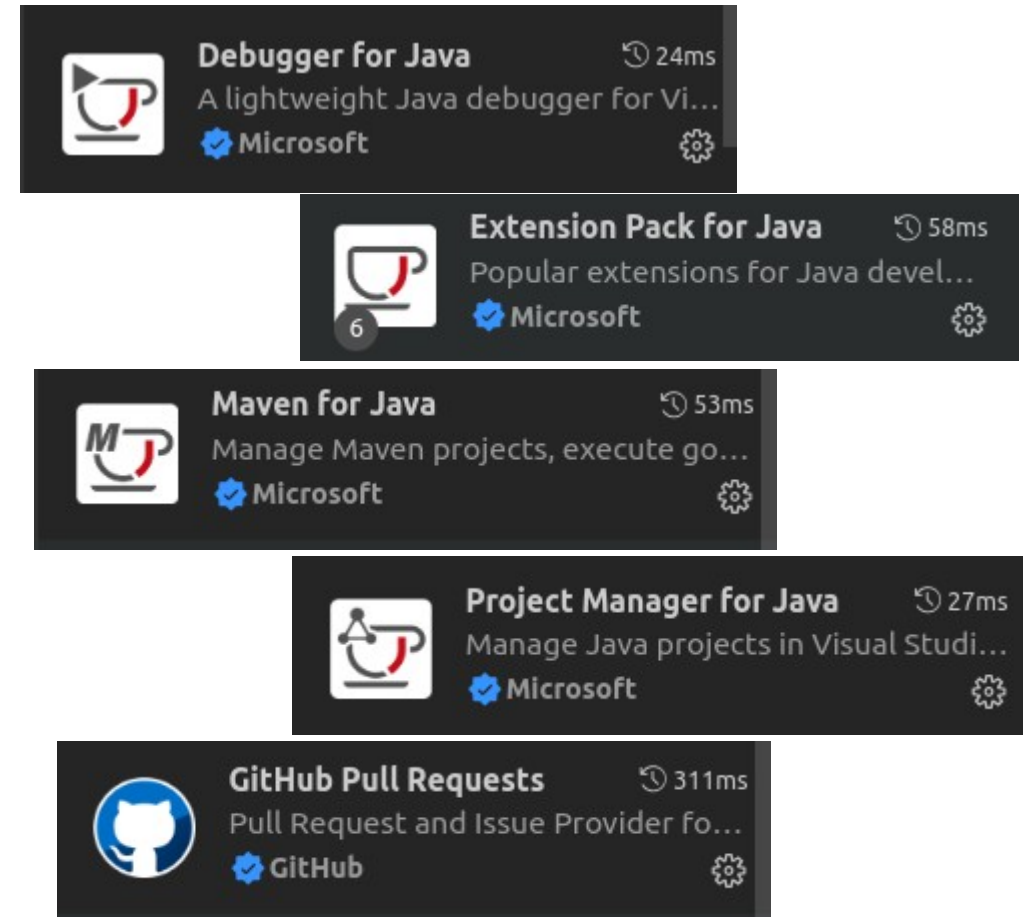
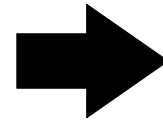
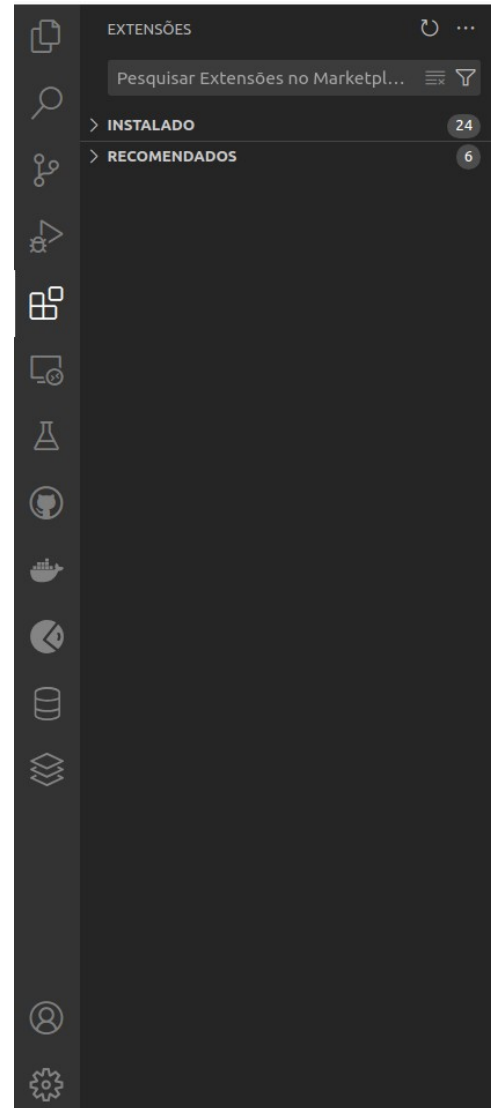
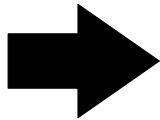
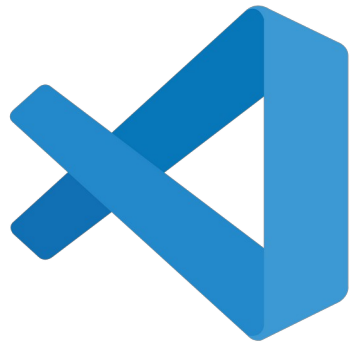




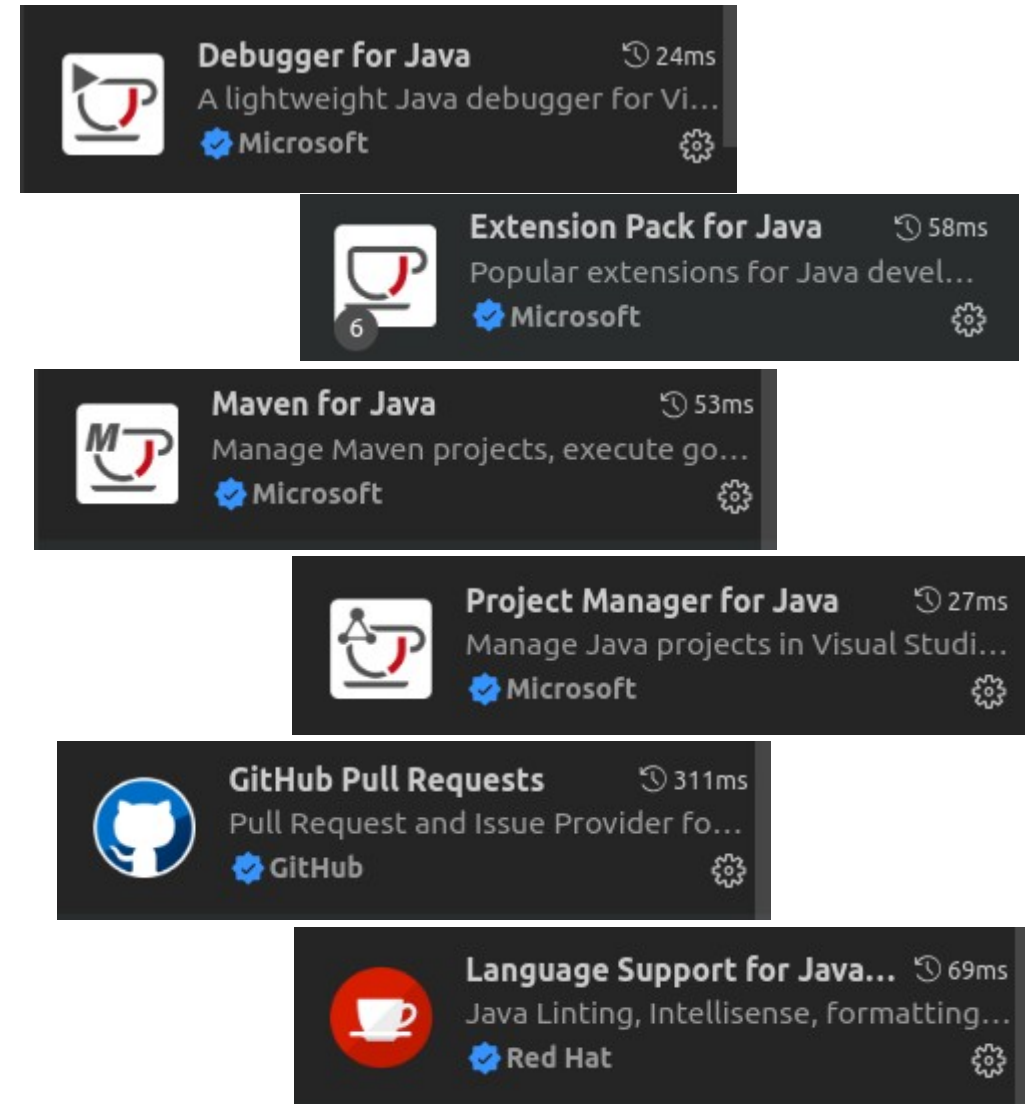
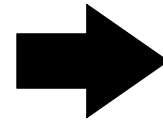
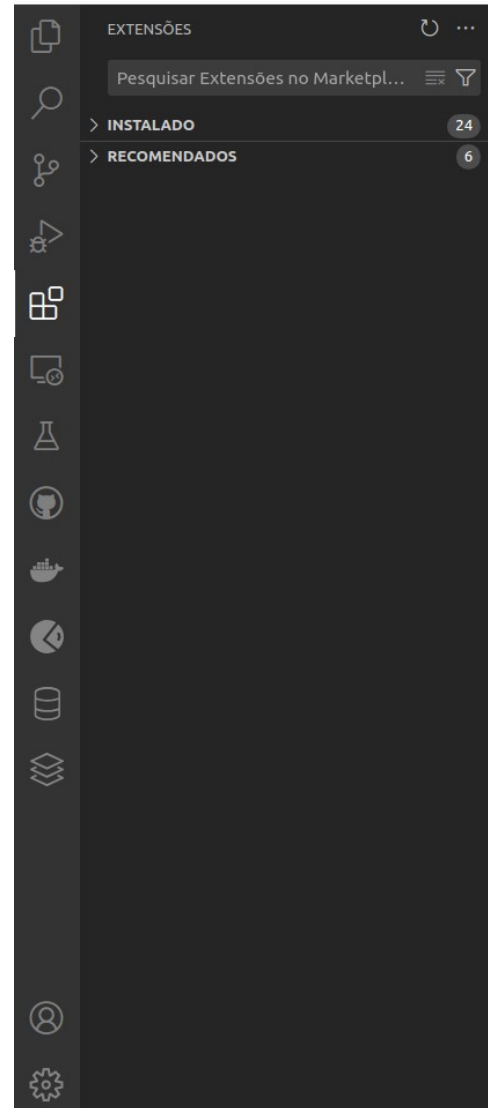
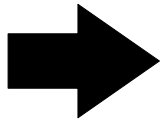
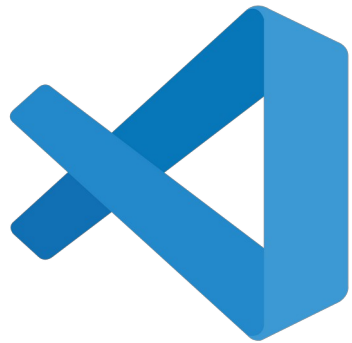
VSCode



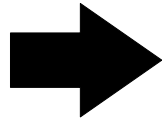
VSCode



VSCode








← → ↺ https://github.com/profpantoja

profantoja

Overview Repositories 10 Projects Packages Stars 2



Kadu Pantoja
profpantoja

Professor and researcher at CEFET/RJ, master and Ph.D in Computing at the Military Institute of Engineering (IME) and UFF with mobility at Sorbonne UPMC.

Edit profile

62 followers · 8 following

CEFET/RJ
Rio de Janeiro
<https://turing.pro.br/kadupantoja>
prof.pantoja

profantoja / README.md

Carpe diem. Make your lives extraordinary.

I work in Artificial Intelligence, more specifically in Multi-agent Systems and Software Engineering, but I have ventured into the areas of Robotics, Ubiquitous Computing, and the Internet of Things. In the management area, I work in technology dissemination (and currently social media), technological innovation, entrepreneurship, and Information Technology Governance and process mapping.

- I'm currently working on [multi-agent-system](#) [embedded-system](#) [modeling-language](#) [metamodel](#)
- I'm collaborating on [JaCaMo](#) [ChonIDE](#)

Research Groups and Projects

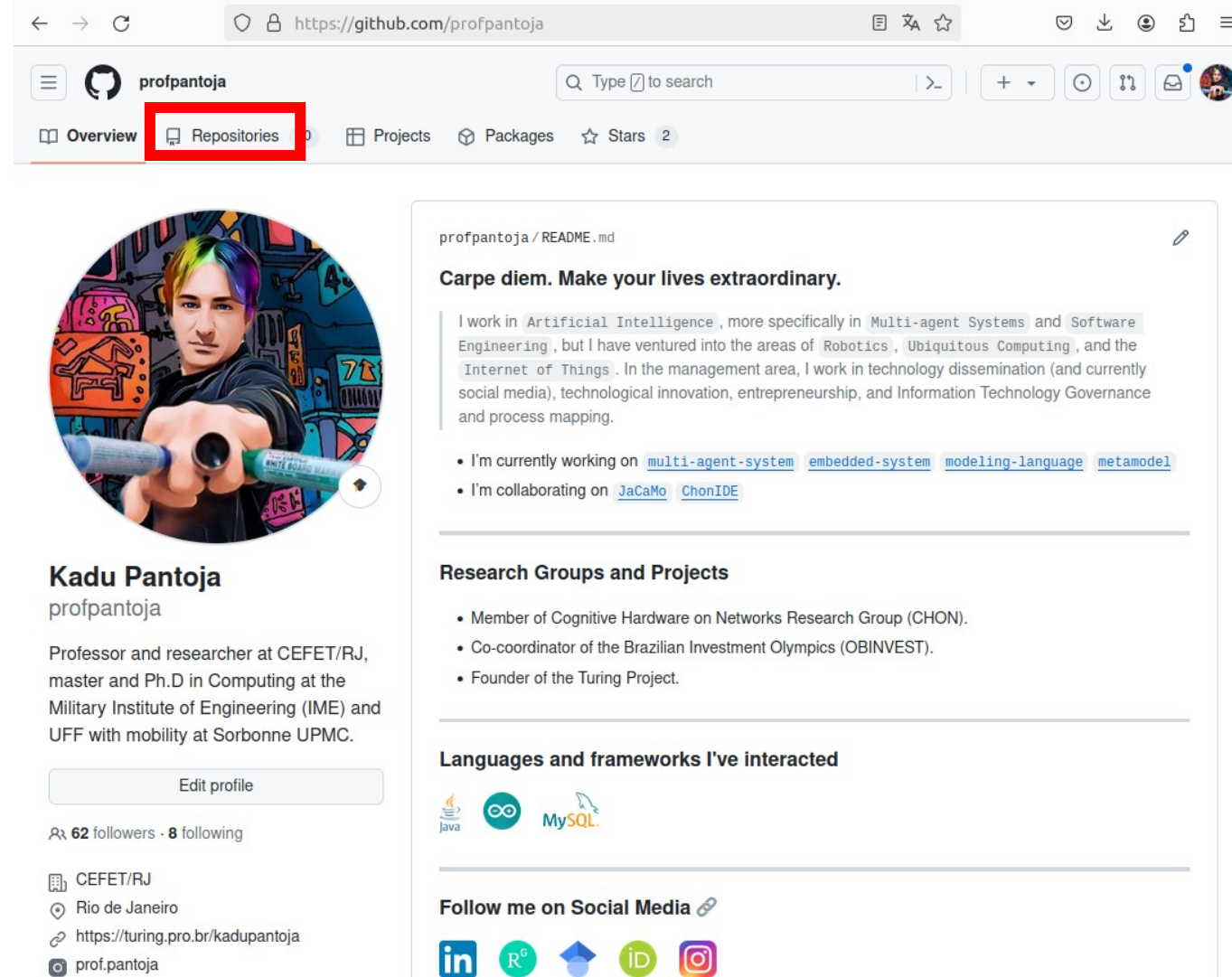
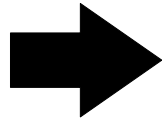
- Member of Cognitive Hardware on Networks Research Group (CHON).
- Co-coordinator of the Brazilian Investment Olympics (OBINVEST).
- Founder of the Turing Project.

Languages and frameworks I've interacted

Java ∞ MySQL


Follow me on Social Media

in R ID Instagram




The screenshot shows the GitHub profile page for user 'profpantoja'. The browser address bar displays 'https://github.com/profpantoja'. The navigation bar includes 'Overview', 'Repositories' (highlighted with a red box), 'Projects', 'Packages', and 'Stars 2'. The profile section features a circular profile picture of a person with rainbow hair, the name 'Kadu Pantoja', the username 'profpantoja', and a bio: 'Professor and researcher at CEFET/RJ, master and Ph.D in Computing at the Military Institute of Engineering (IME) and UFF with mobility at Sorbonne UPMC.' Below the bio is an 'Edit profile' button and statistics: '62 followers · 8 following'. Location and website information are listed at the bottom left. The right sidebar contains a 'README.md' section with the text 'Carpe diem. Make your lives extraordinary.' followed by a paragraph about work in Artificial Intelligence and Robotics, and two bullet points about current work and collaborations. Below this is a 'Research Groups and Projects' section with three items, and a 'Languages and frameworks I've interacted' section showing icons for Java, infinity, and MySQL. At the bottom is a 'Follow me on Social Media' section with icons for LinkedIn, R, a blue arrow, iD, and Instagram.

← → ↻ https://github.com/profpantoja

☰  profpantoja 🔍 Type to search

☰ Overview **Repositories** Projects Packages Stars 2



Kadu Pantoja
profpantoja

Professor and researcher at CEFET/RJ, master and Ph.D in Computing at the Military Institute of Engineering (IME) and UFF with mobility at Sorbonne UPMC.

Edit profile

👤 62 followers · 8 following

📍 CEFET/RJ
📍 Rio de Janeiro
🌐 <https://turing.pro.br/kadupantoja>
📧 prof.pantoja

profpantoja / README.md

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Research Groups and Projects

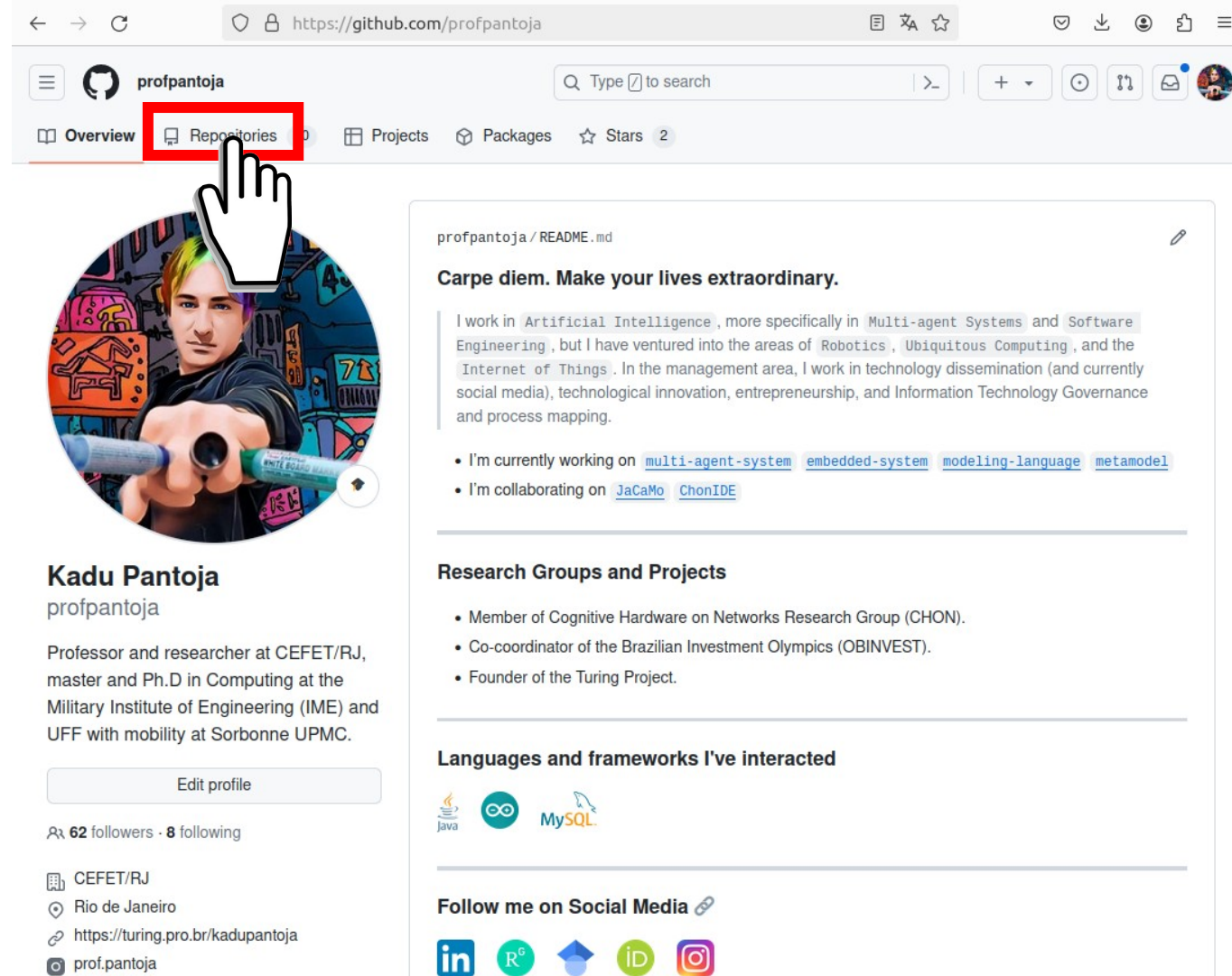
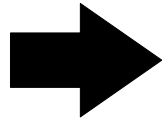
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- Founder of the Turing Project.

Languages and frameworks I've interacted

Follow me on Social Media



The screenshot shows the GitHub profile page for 'profpantoja'. The 'Repositories' tab is highlighted with a red box and a hand cursor. The profile includes a circular avatar of a person with colorful hair, a bio, a list of followers/following, location, website, and social media links. The right sidebar contains a README for 'profpantoja / README.md' with a title 'Carpe diem. Make your lives extraordinary.', a bio paragraph, a list of current projects, research groups, and languages/frameworks interacted with.

profpantoja

Overview Repositories Projects Packages Stars 2

Kadu Pantoja
profpantoja

Professor and researcher at CEFET/RJ, master and Ph.D in Computing at the Military Institute of Engineering (IME) and UFF with mobility at Sorbonne UPMC.

Edit profile

62 followers · 8 following

CEFET/RJ
Rio de Janeiro
<https://turing.pro.br/kadupantoja>
prof.pantoja

profpantoja / README.md

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Research Groups and Projects

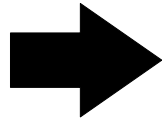
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- Founder of the Turing Project.

Languages and frameworks I've interacted

Java, ∞, MySQL

Follow me on Social Media

in, R, GitHub, iD, Instagram



Screenshot of the GitHub profile page for **profpantoja** (Kadu Pantoja).

Profile Information:

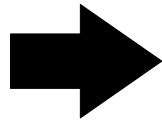
- Name:** Kadu Pantoja
- Username:** profpantoja
- Location:** Rio de Janeiro
- Website:** <https://turing.pro.br/kadupantoja>
- GitHub ID:** prof.pantoja
- Followers:** 62
- Following:** 8

Repositories:

- java-exercicios** (Public)
 - Description: Repositório das listas de Exercícios da disciplina de Linguagens e Técnicas de Programação II
 - Language: Java
 - Stars: 1
 - Updated: yesterday
- chonGame** (Private)
 - Description: A JavaFX game for learning the main concepts from the object-oriented approach.
 - Language: Java
 - Updated: 2 weeks ago
- bd-exercicios** (Public)
 - Description: Repositório das listas de Exercícios da disciplina de Modelagem de Banco de Dados e Banco de Dados.
 - Stars: 1
 - Updated: on Dec 13, 2023

Languages and frameworks I've interacted: Java, React, MySQL

Follow me on Social Media: LinkedIn, ResearchGate, YouTube, Instagram



Screenshot of the GitHub profile page for **profpantoja** (Kadu Pantoja).

Profile Information:

- Name:** Kadu Pantoja (profpantoja)
- Role:** Professor and researcher at CEFET/RJ, master and Ph.D in Computing at the Military Institute of Engineering (IME) and UFF with mobility at Sorbonne UPMC.
- Followers:** 62 followers - 8 following
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- GitHub ID:** prof.pantoja

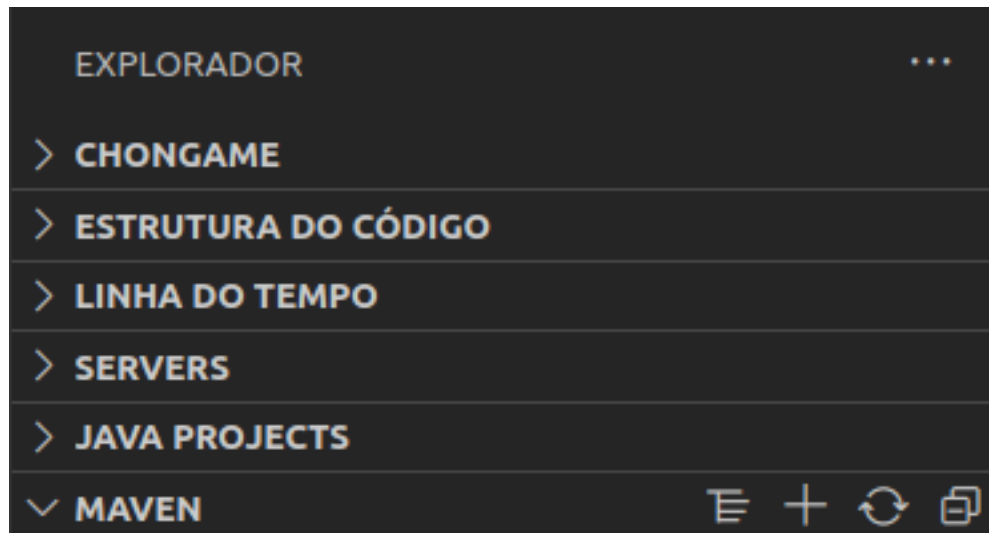
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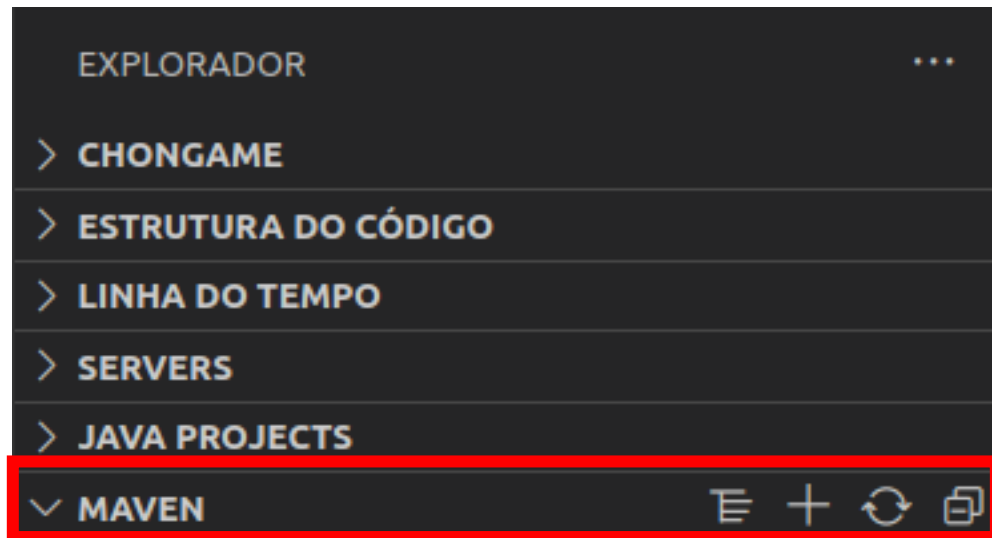
Languages and frameworks I've interacted: Java, React, MySQL

Follow me on Social Media: LinkedIn, ResearchGate, YouTube, Instagram

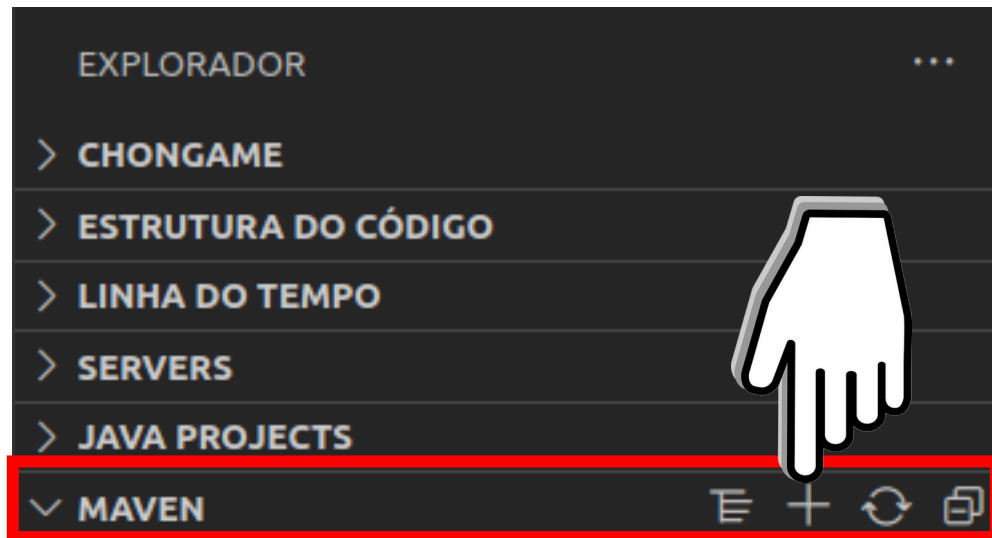
Creating a New Maven Project



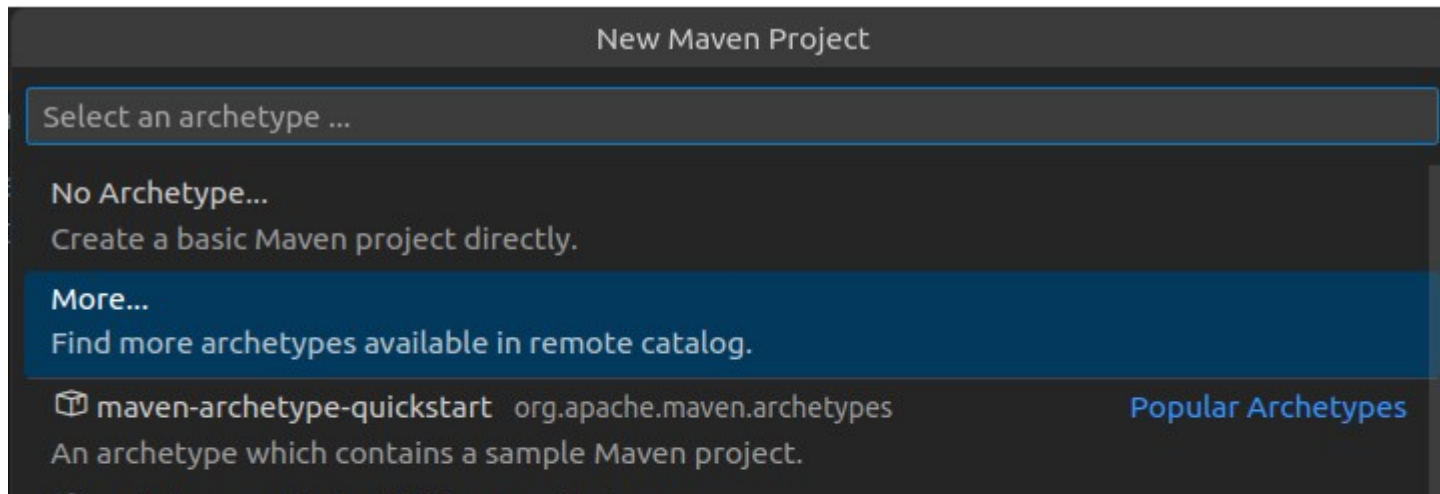
Creating a New Maven Project



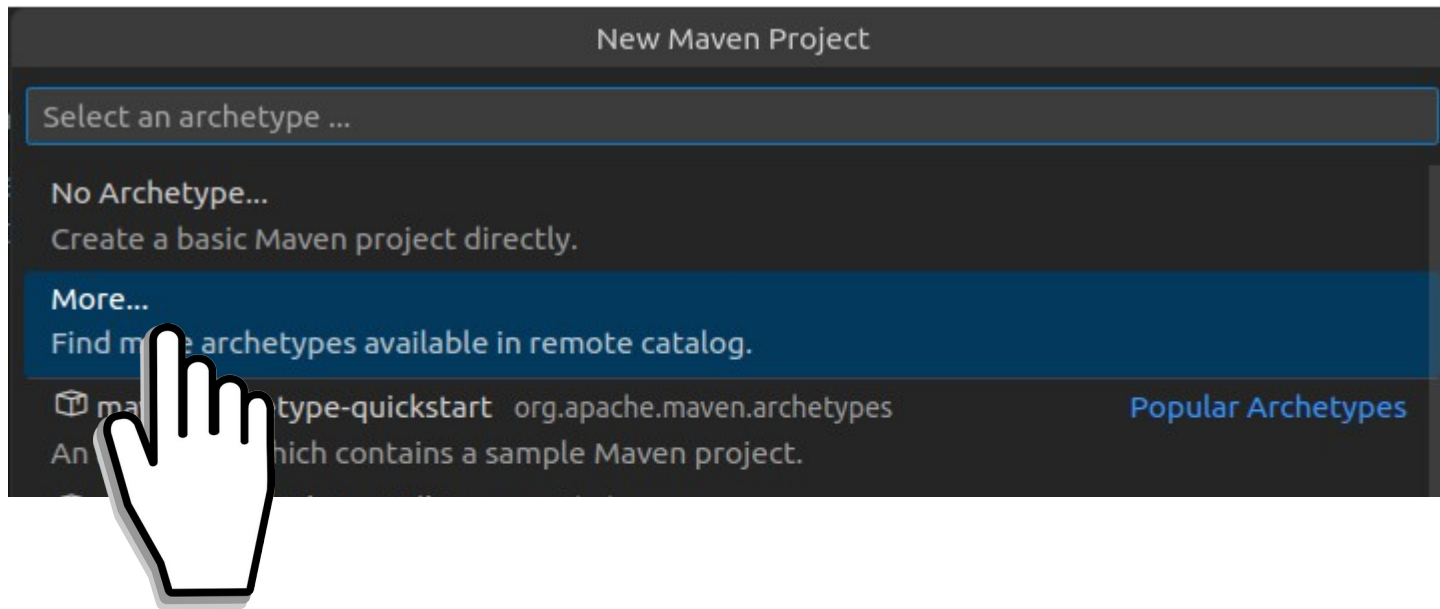
Creating a New Maven Project



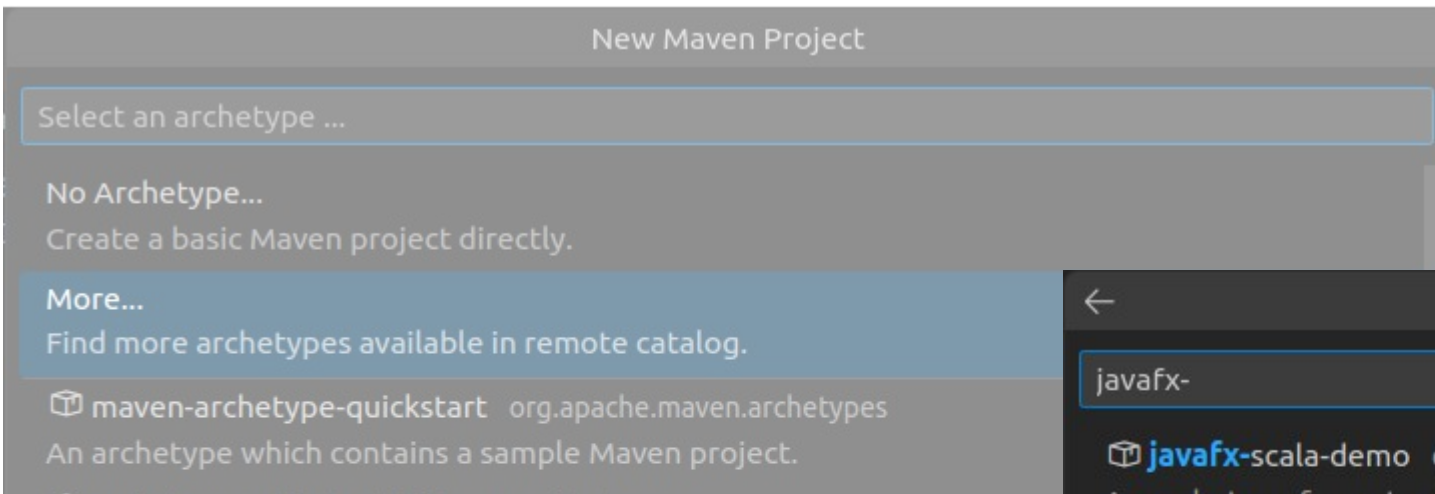
Creating a New Maven Project



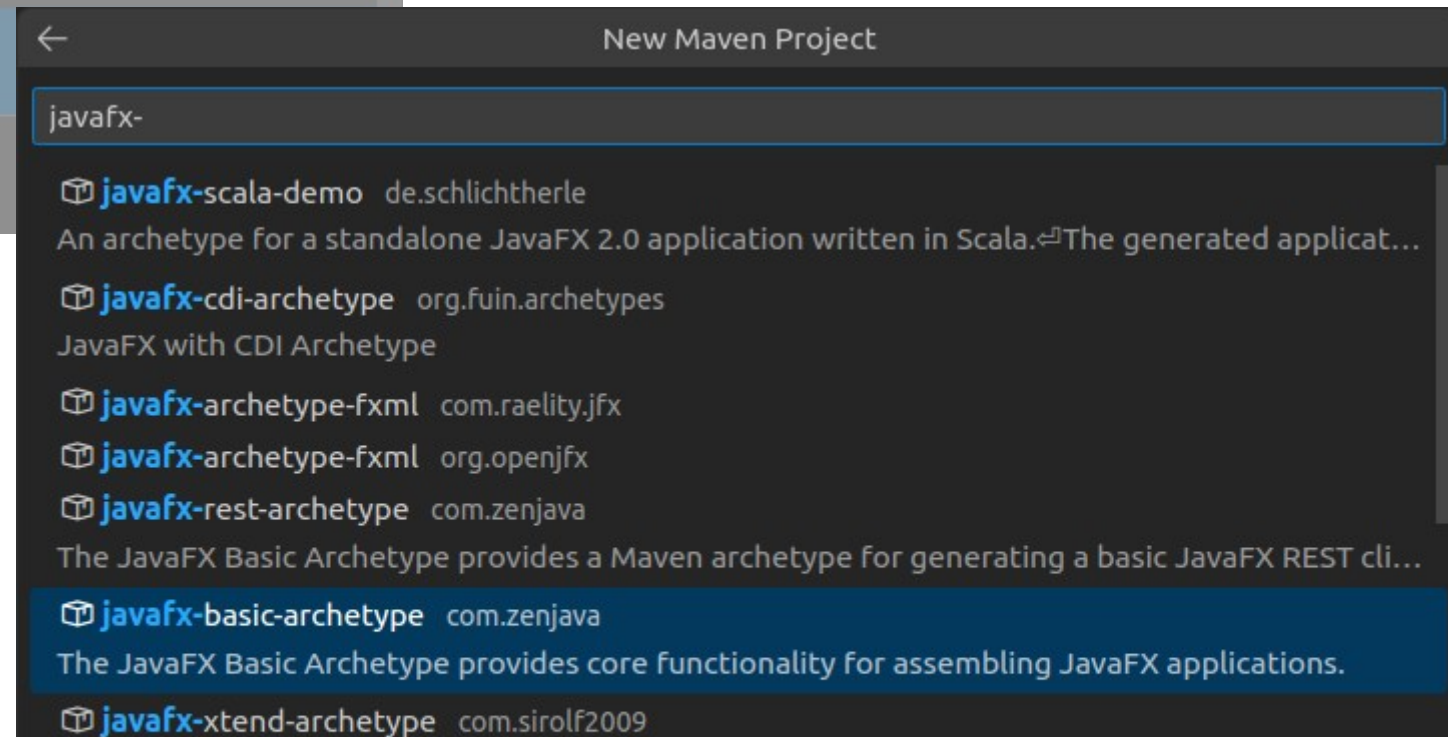
Creating a New Maven Project



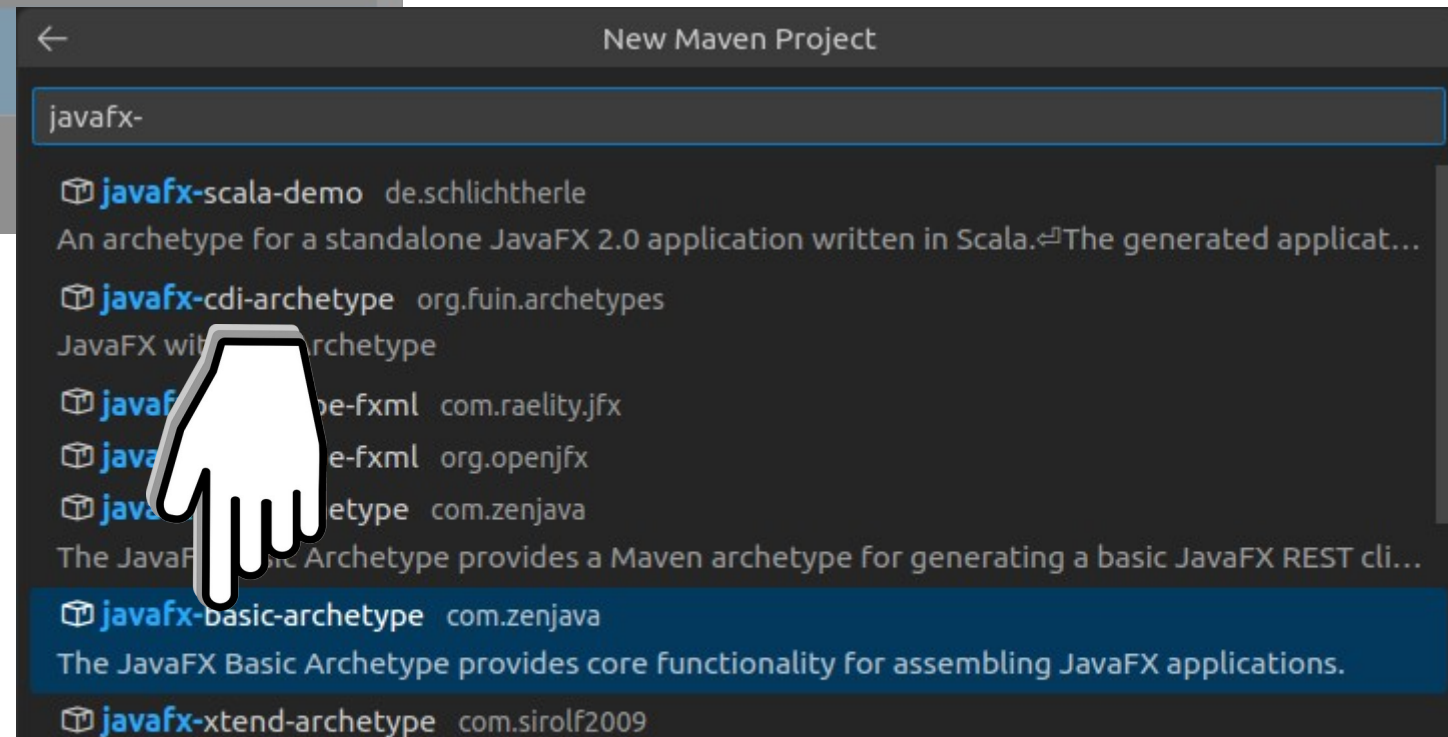
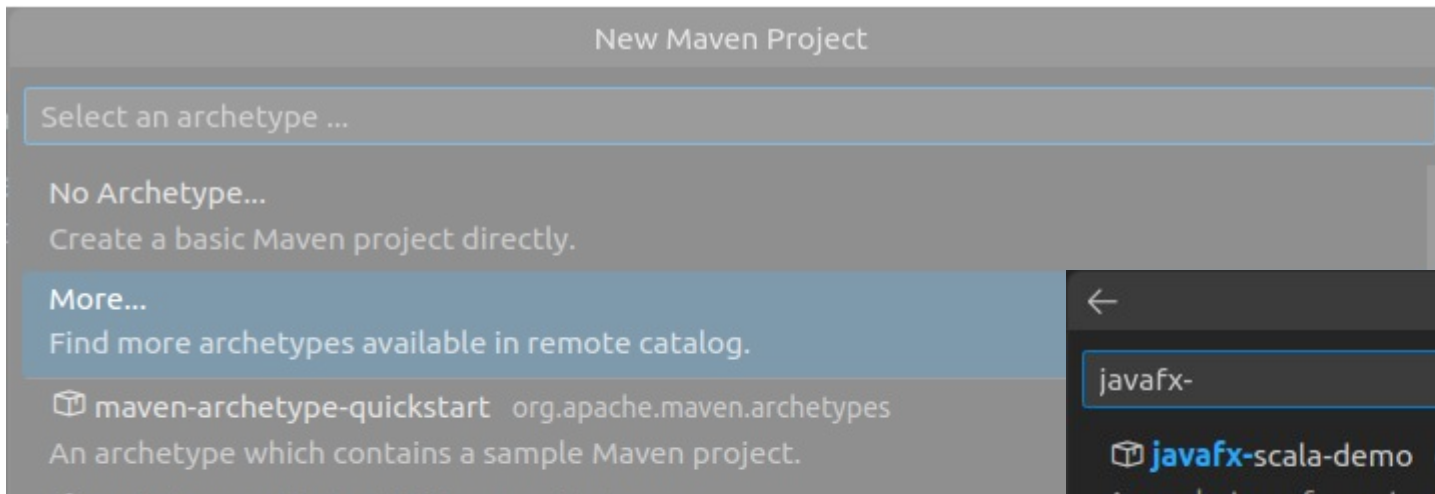
Creating a New Maven Project



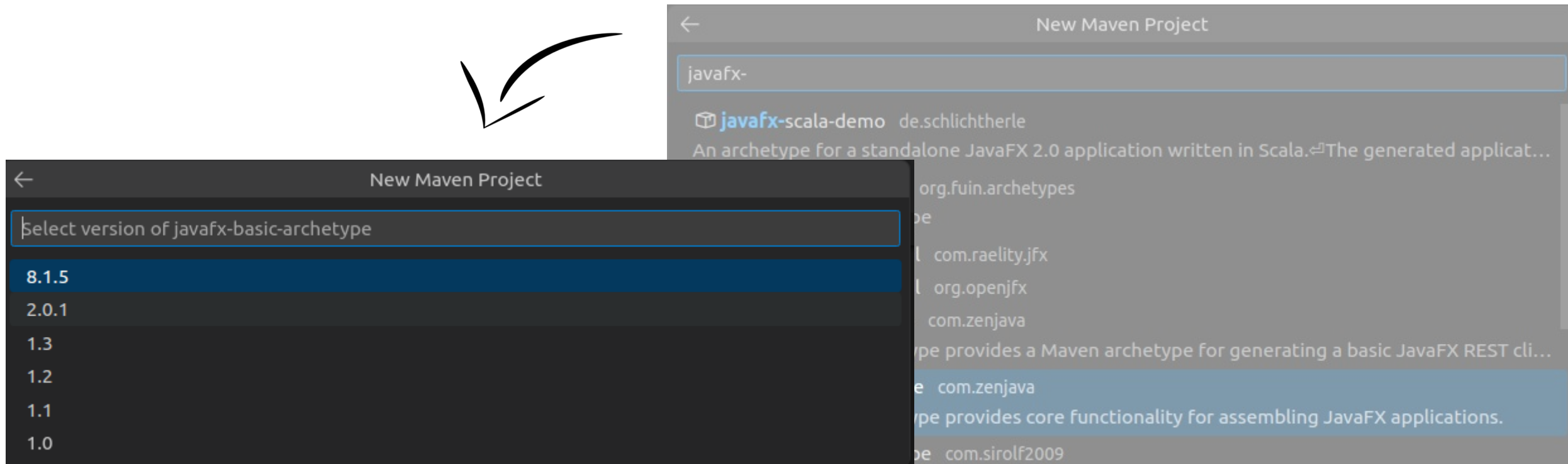
javafx-basic-archetype



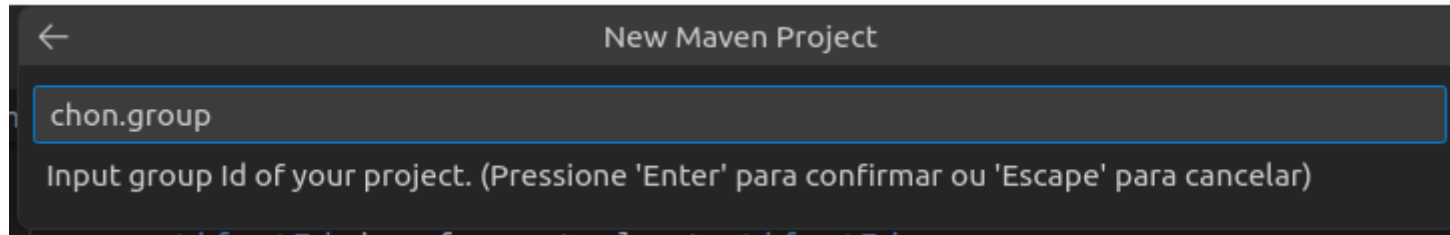
Creating a New Maven Project



Creating a New Maven Project



Creating a New Maven Project

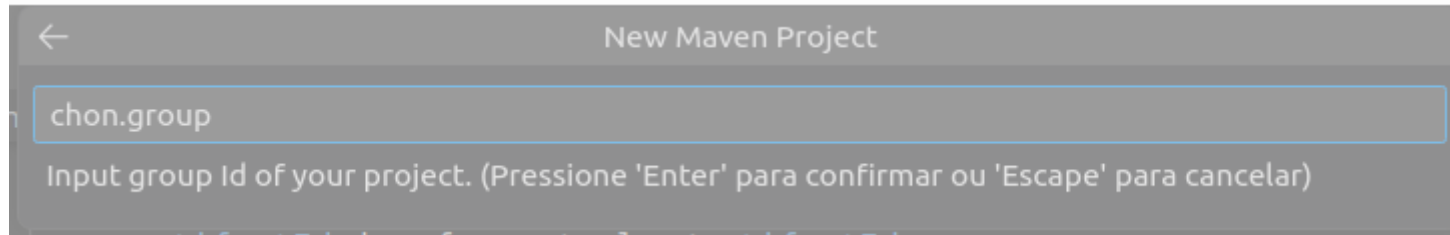


← New Maven Project

chon.group

Input group Id of your project. (Pressione 'Enter' para confirmar ou 'Escape' para cancelar)

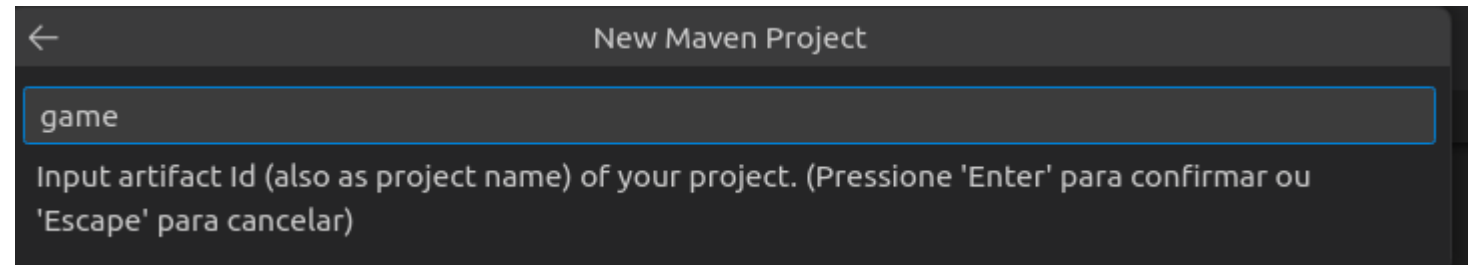
Creating a New Maven Project



← New Maven Project

chon.group

Input group Id of your project. (Pressione 'Enter' para confirmar ou 'Escape' para cancelar)



← New Maven Project

game

Input artifact Id (also as project name) of your project. (Pressione 'Enter' para confirmar ou 'Escape' para cancelar)

Creating a New Maven Project

```
o * Executando tarefa: mvn org.apache.maven.plugins:maven-archetype-plugin:3.1.2:generate -DarchetypeArtifactId="javafx-basi
c-archetype" -DarchetypeGroupId="com.zenjava" -DarchetypeVersion="8.1.5" -DgroupId="chon.group" -DartifactId="game"

[INFO] Scanning for projects...
[INFO]
[INFO] -----< chon.group:game >-----
[INFO] Building game 1
[INFO] -----[ jar ]-----
[INFO]
[INFO] >>> maven-archetype-plugin:3.1.2:generate (default-cli) > generate-sources @ game >>>
[INFO]
[INFO] <<< maven-archetype-plugin:3.1.2:generate (default-cli) < generate-sources @ game <<<
[INFO]
[INFO] --- maven-archetype-plugin:3.1.2:generate (default-cli) @ game ---
[INFO] Generating project in Interactive mode
[INFO] Archetype repository not defined. Using the one from [com.zenjava:javafx-basic-archetype:8.1.5] found in catalog remo
te
Downloading from central: https://repo.maven.apache.org/maven2/com/zenjava/javafx-basic-archetype/8.1.5/javafx-basic-archety
pe-8.1.5.pom
Downloaded from central: https://repo.maven.apache.org/maven2/com/zenjava/javafx-basic-archetype/8.1.5/javafx-basic-archety
e-8.1.5.pom (6.2 kB at 17 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/com/zenjava/javafx-basic-archetype/8.1.5/javafx-basic-archety
pe-8.1.5.jar
Downloaded from central: https://repo.maven.apache.org/maven2/com/zenjava/javafx-basic-archetype/8.1.5/javafx-basic-archety
e-8.1.5.jar (145 kB at 188 kB/s)
[INFO] Using property: groupId = chon.group
[INFO] Using property: artifactId = game
Define value for property 'version' 1.0-SNAPSHOT: :
```

Creating a New Maven Project

```
o * Executando tarefa: mvn org.apache.maven.plugins:maven-archetype-plugin:3.1.2:generate -DarchetypeArtifactId="javafx-basic-archetype" -DarchetypeGroupId="com.zenjava" -DarchetypeVersion="8.1.5" -DgroupId="chon.group" -DartifactId="game"
```

```
[INFO] Scanning for projects...
```

```
[INFO]
```

```
[INFO] -----< chon.group:game >-----
```

```
[INFO] Building game 1
```

```
[INFO] -----[ jar ]-----
```

```
[INFO]
```

```
[INFO] >>> maven-archetype-plugin:3.1.2:generate (default-cli) > generate-sources @ game >>>
```

```
[INFO]
```

```
[INFO] <<< maven-archetype-plugin:3.1.2:generate (default-cli) < generate-sources @ game <<<
```

```
[INFO]
```

```
[INFO] --- maven-archetype-plugin:3.1.2:generate (default-cli) @ game ---
```

```
[INFO] Generating project in Interactive mode
```

```
[INFO] Archetype repository not defined. Using the one from [com.zenjava:javafx-basic-archetype:8.1.5] found in catalog remote
```

```
Downloading from central: https://repo.maven.apache.org/maven2/com/zenjava/javafx-basic-archetype-8.1.5.pom
```

```
Downloaded from central: https://repo.maven.apache.org/maven2/com/zenjava/javafx-basic-archetype-8.1.5.pom (6.2 kB at 17 kB/s)
```

```
Downloading from central: https://repo.maven.apache.org/maven2/com/zenjava/javafx-basic-archetype-8.1.5.jar
```

```
Downloaded from central: https://repo.maven.apache.org/maven2/com/zenjava/javafx-basic-archetype-8.1.5.jar (145 kB at 188 kB/s)
```

```
[INFO] Using property: groupId = chon.group
```

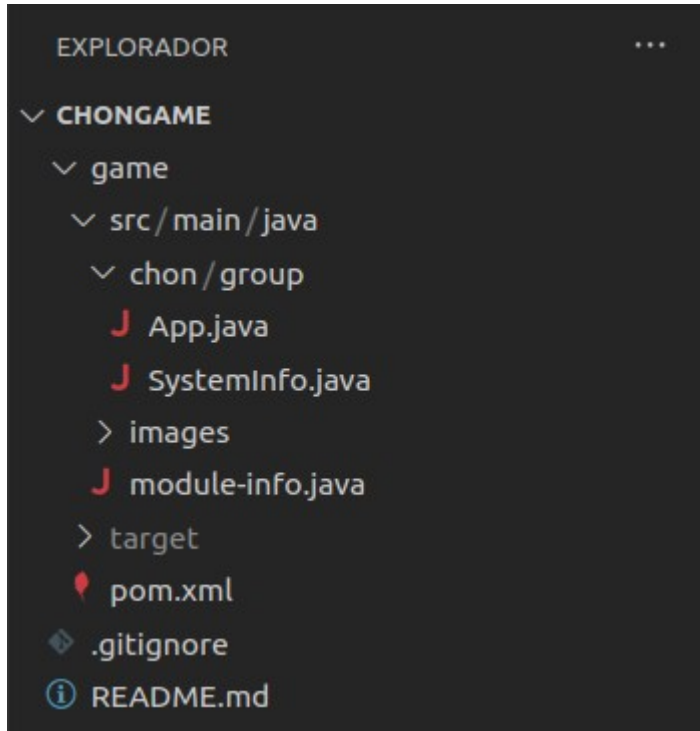
```
[INFO] Using property: artifactId = game
```

```
Define value for property 'version' 1.0-SNAPSHOT: :
```

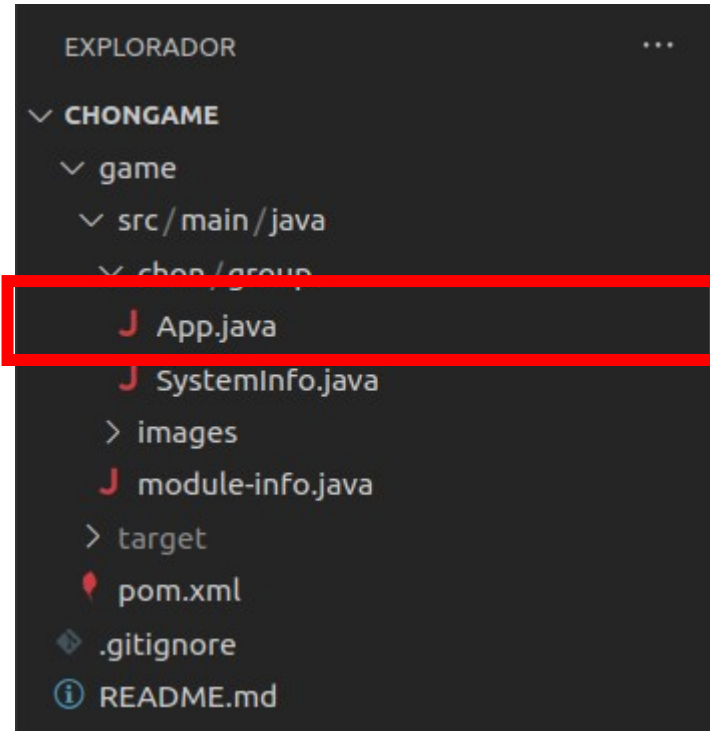
```
[INFO] Using property: groupId = chon.group
[INFO] Using property: artifactId = game
Define value for property 'version' 1.0-SNAPSHOT: : 1
[INFO] Using property: package = chon.group
Define value for property 'organizationName': chon
Confirm properties configuration:
groupId: chon.group
artifactId: game
version: 1
package: chon.group
organizationName: chon
Y: : Y
```



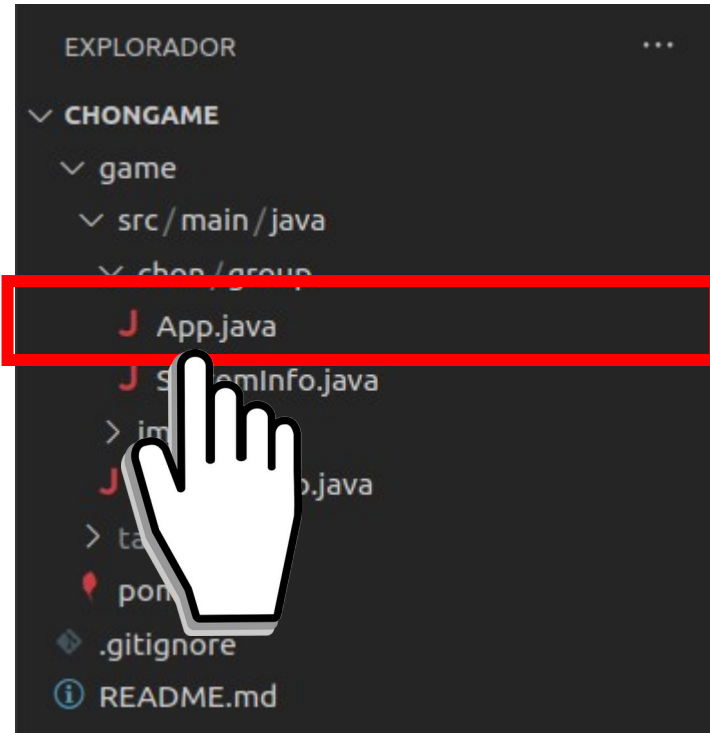
Java FX App Running



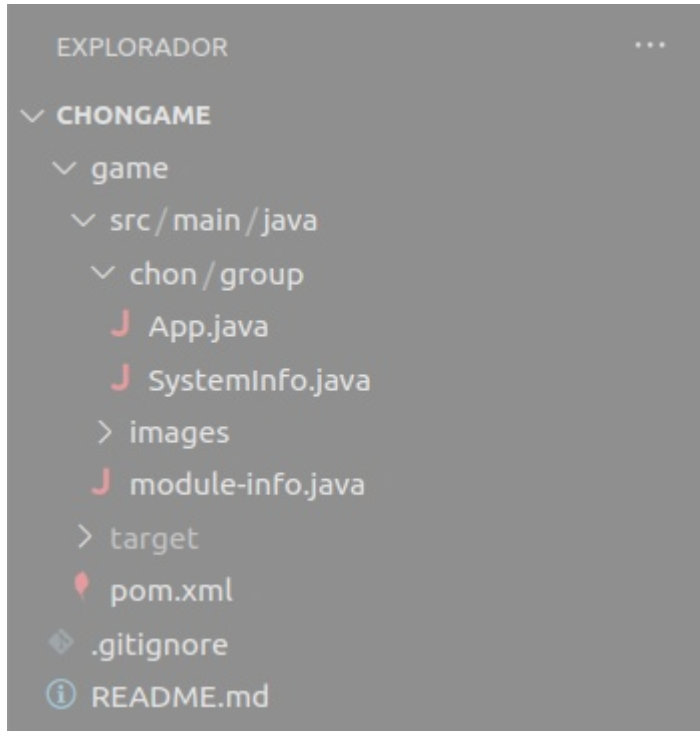
Java FX App Running



Java FX App Running

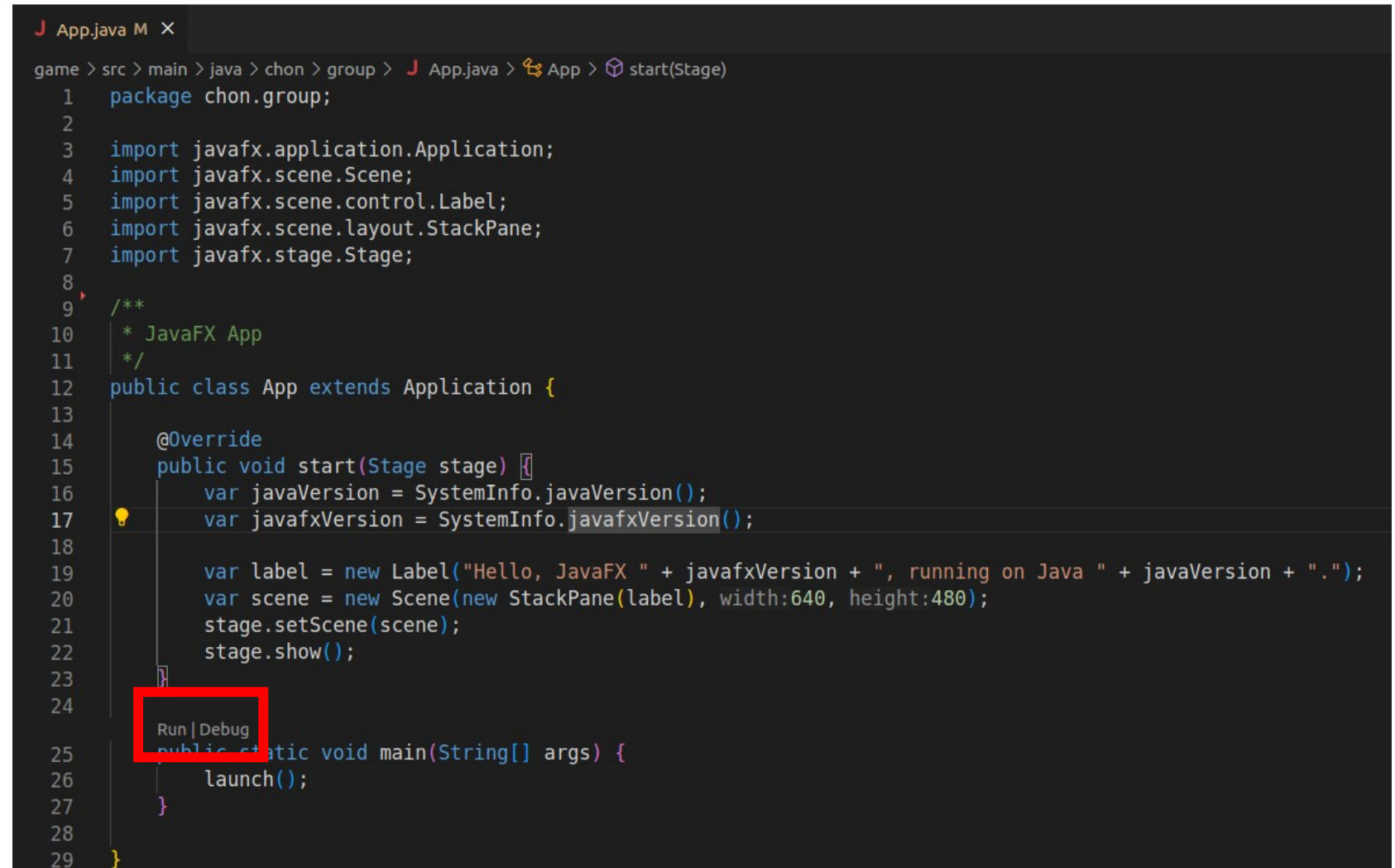
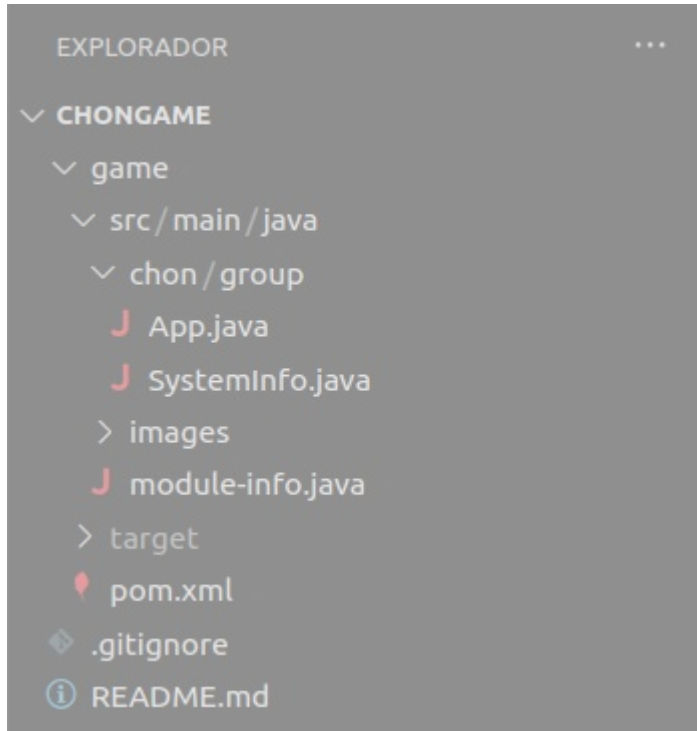


Java FX App Running

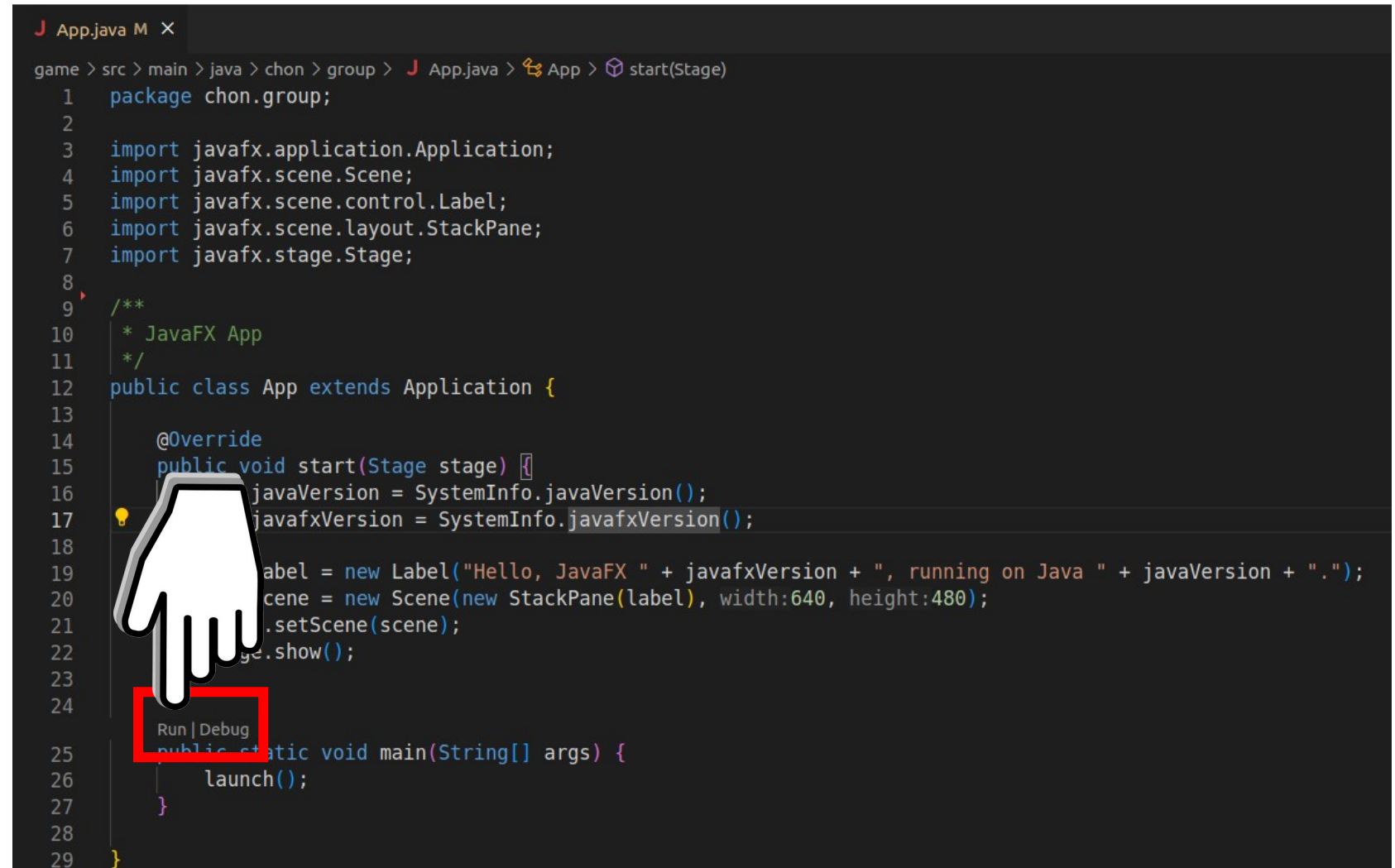
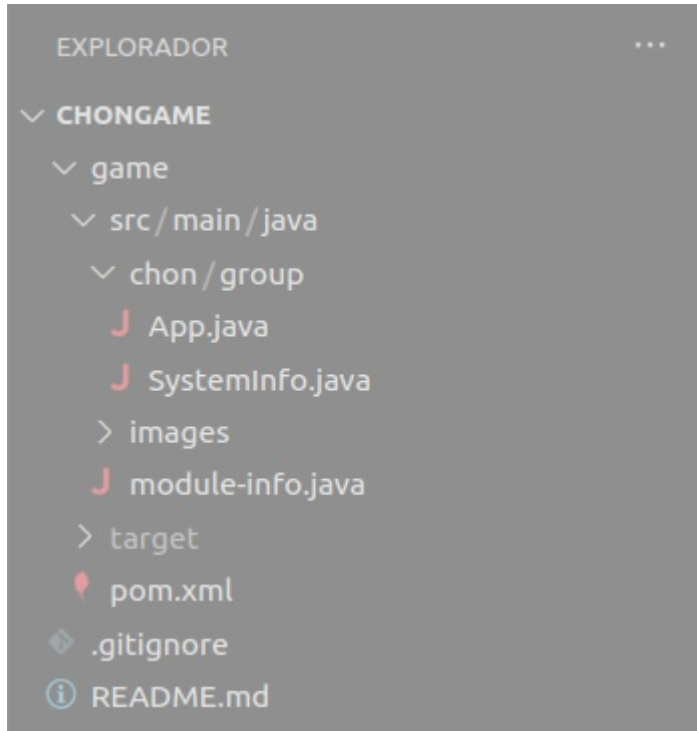


```
J App.java M X
game > src > main > java > chon > group > J App.java > App > start(Stage)
1  package chon.group;
2
3  import javafx.application.Application;
4  import javafx.scene.Scene;
5  import javafx.scene.control.Label;
6  import javafx.scene.layout.StackPane;
7  import javafx.stage.Stage;
8
9  /**
10   * JavaFX App
11   */
12  public class App extends Application {
13
14      @Override
15      public void start(Stage stage) {
16          var javaVersion = SystemInfo.javaVersion();
17          var javafxVersion = SystemInfo.javafxVersion();
18
19          var label = new Label("Hello, JavaFX " + javafxVersion + ", running on Java " + javaVersion + ".");
20          var scene = new Scene(new StackPane(label), width:640, height:480);
21          stage.setScene(scene);
22          stage.show();
23      }
24
25      Run | Debug
26      public static void main(String[] args) {
27          launch();
28      }
29  }
```

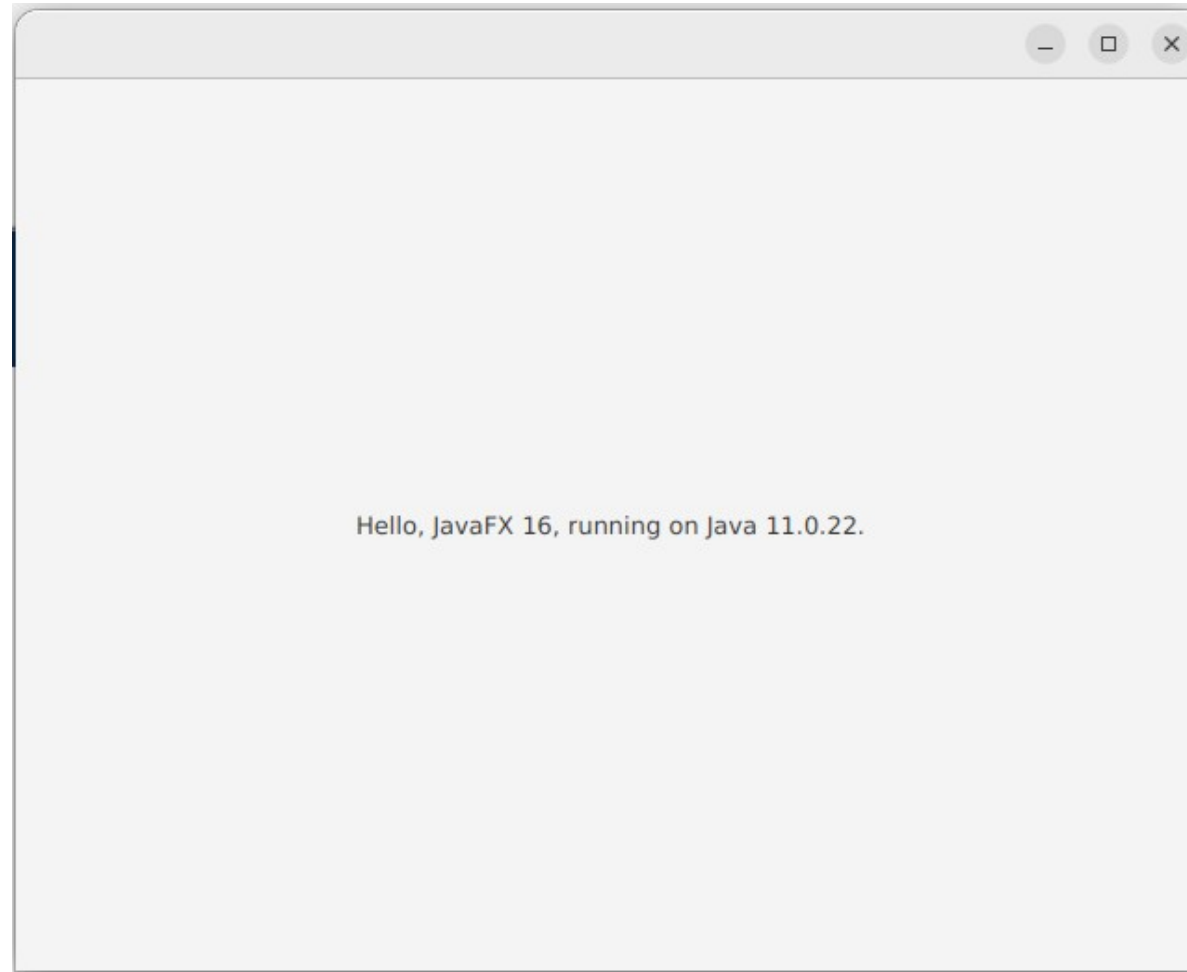
Java FX App Running



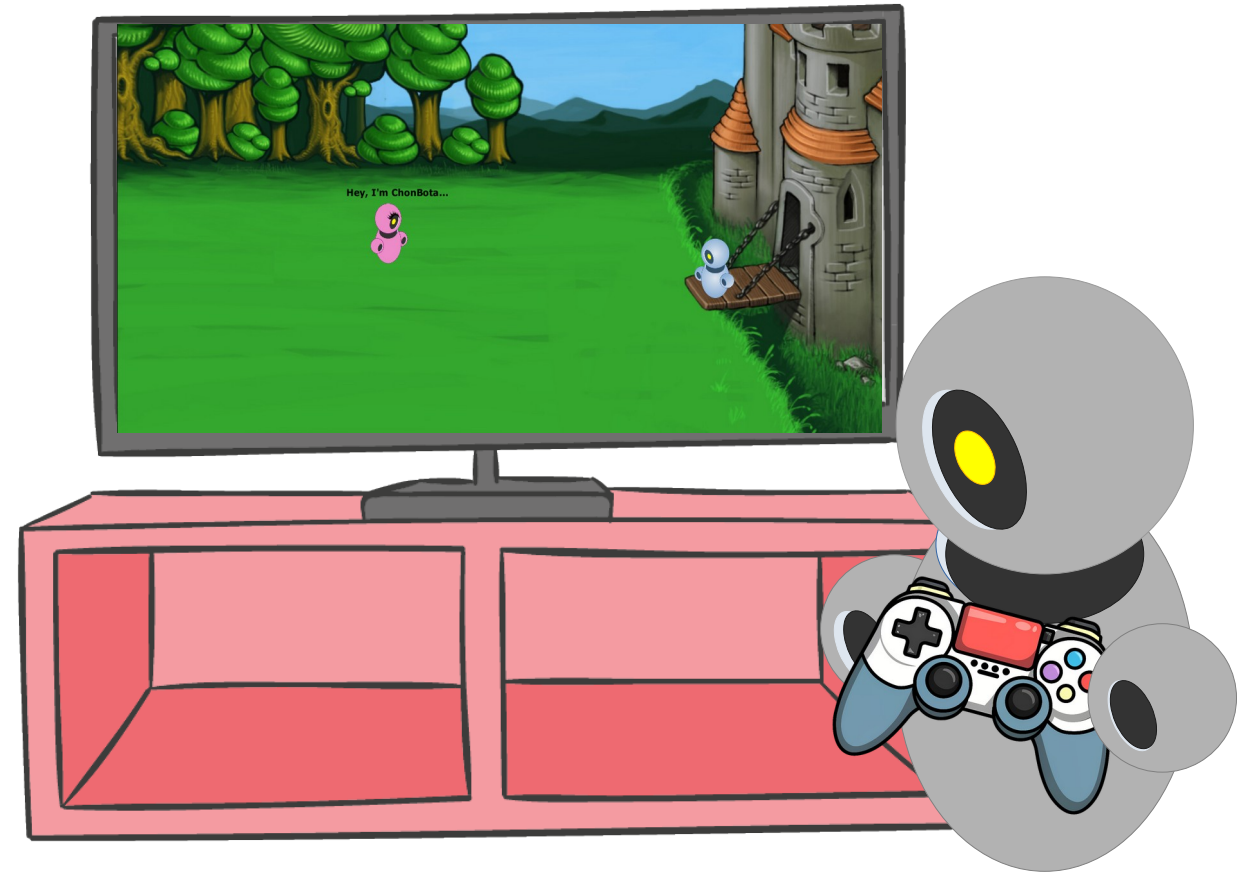
Java FX App Running



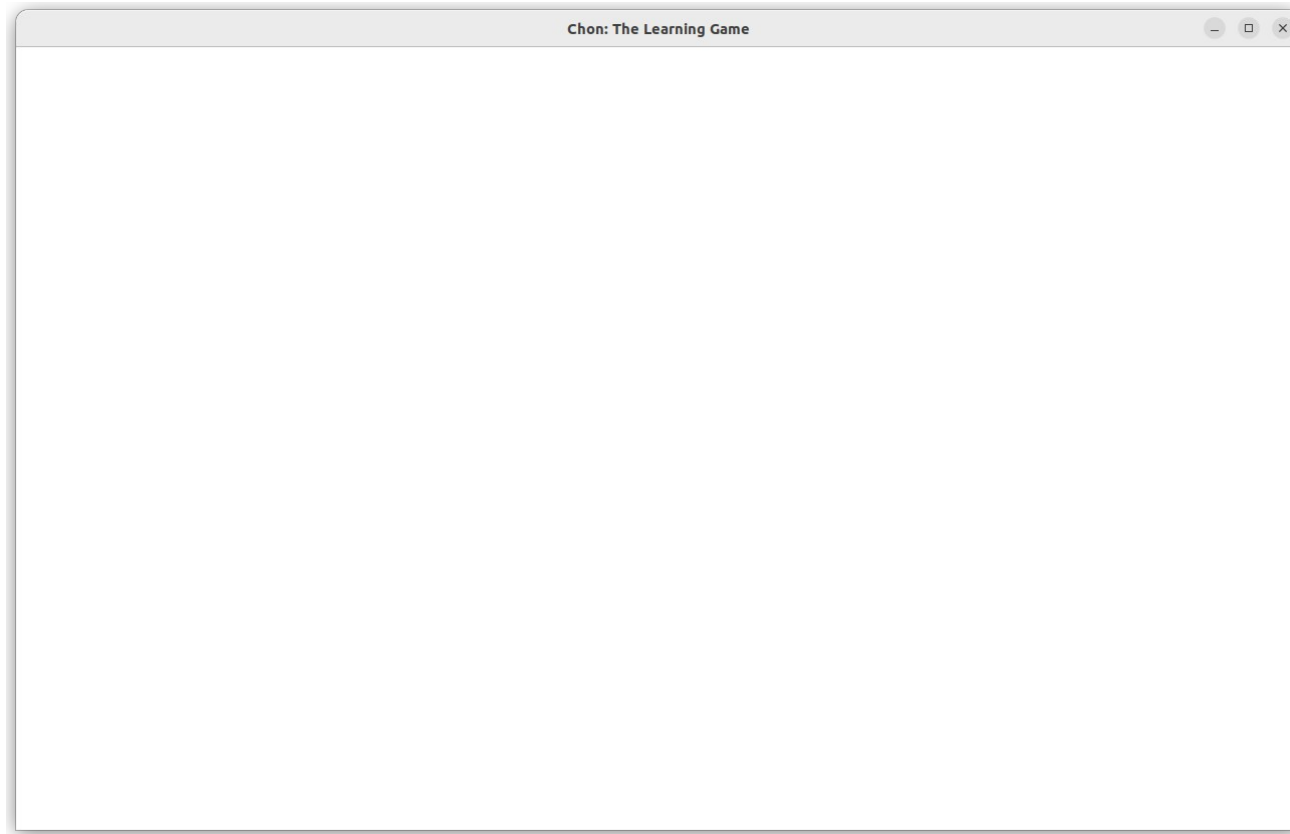
Java FX App Running



MANIPULATING GRAPHICAL ELEMENTS

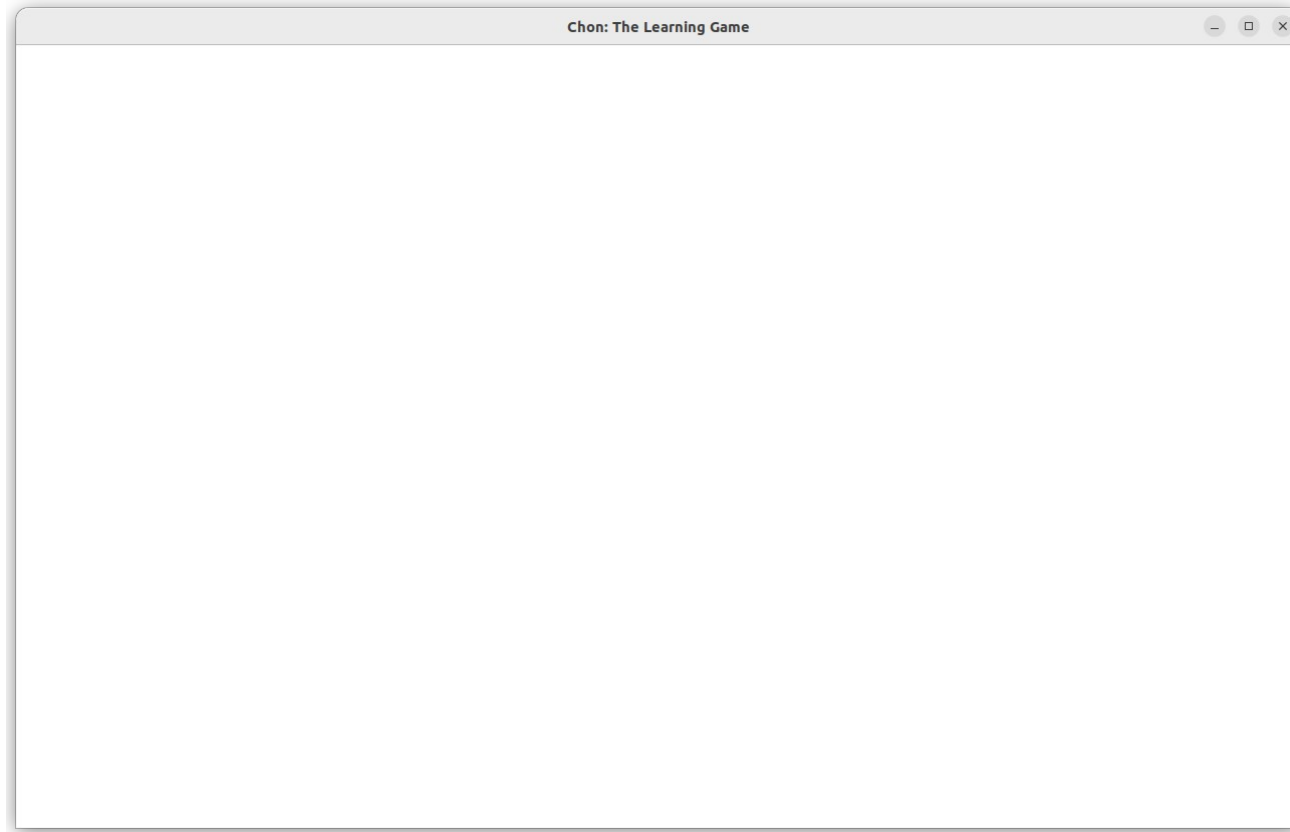


StackPane



StackPane

pane

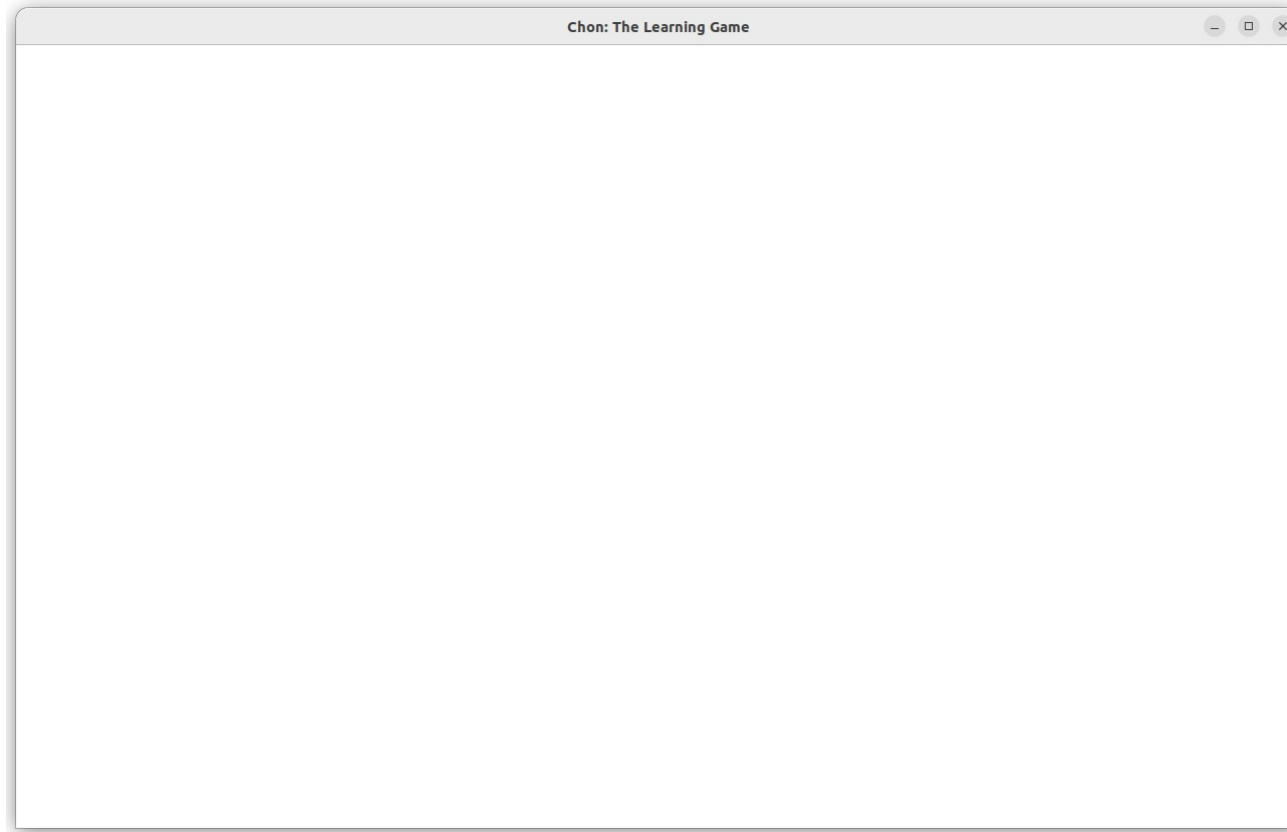


StackPane

pane

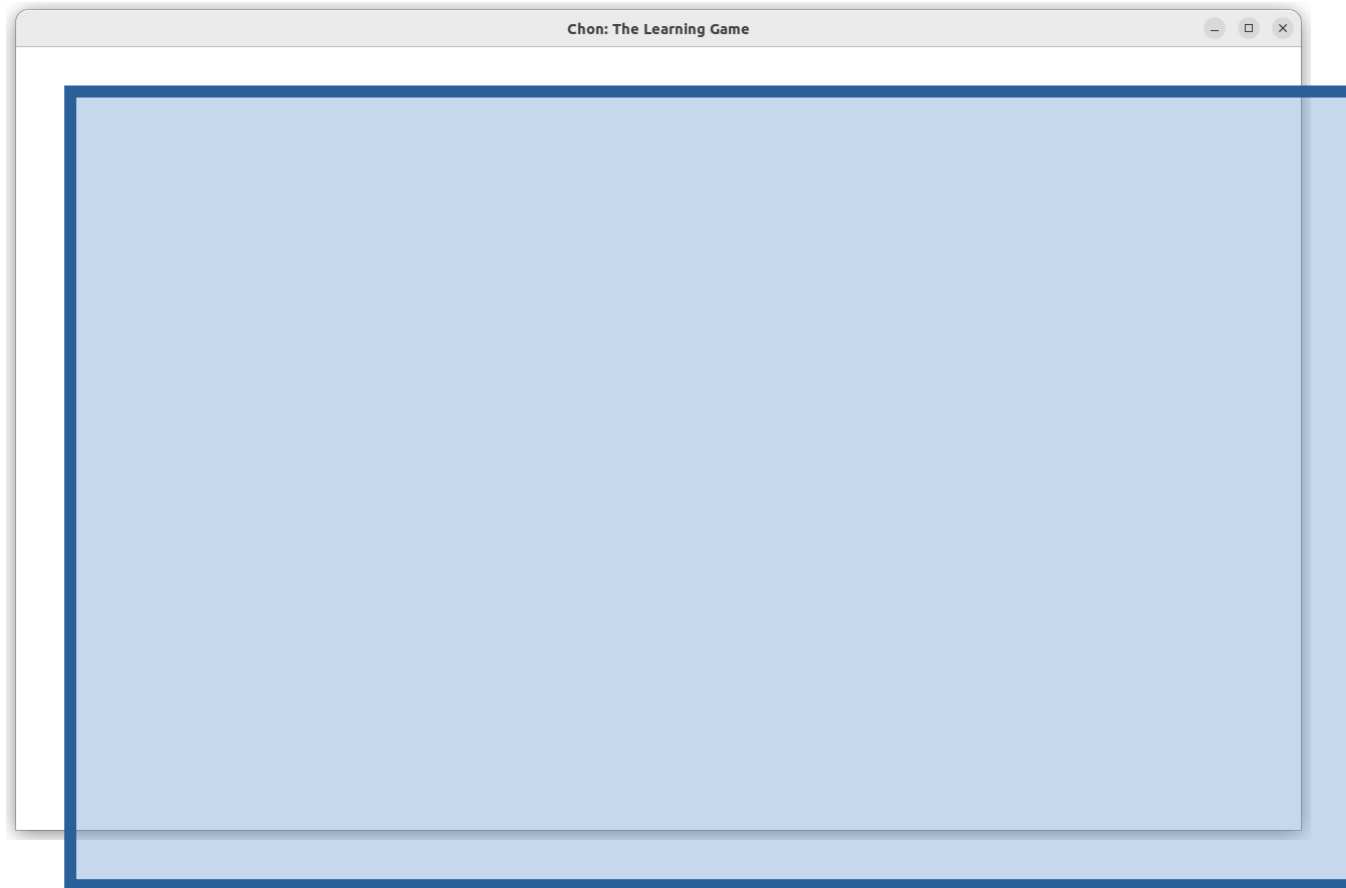


The window
that is
currently
displayed on
the screen.



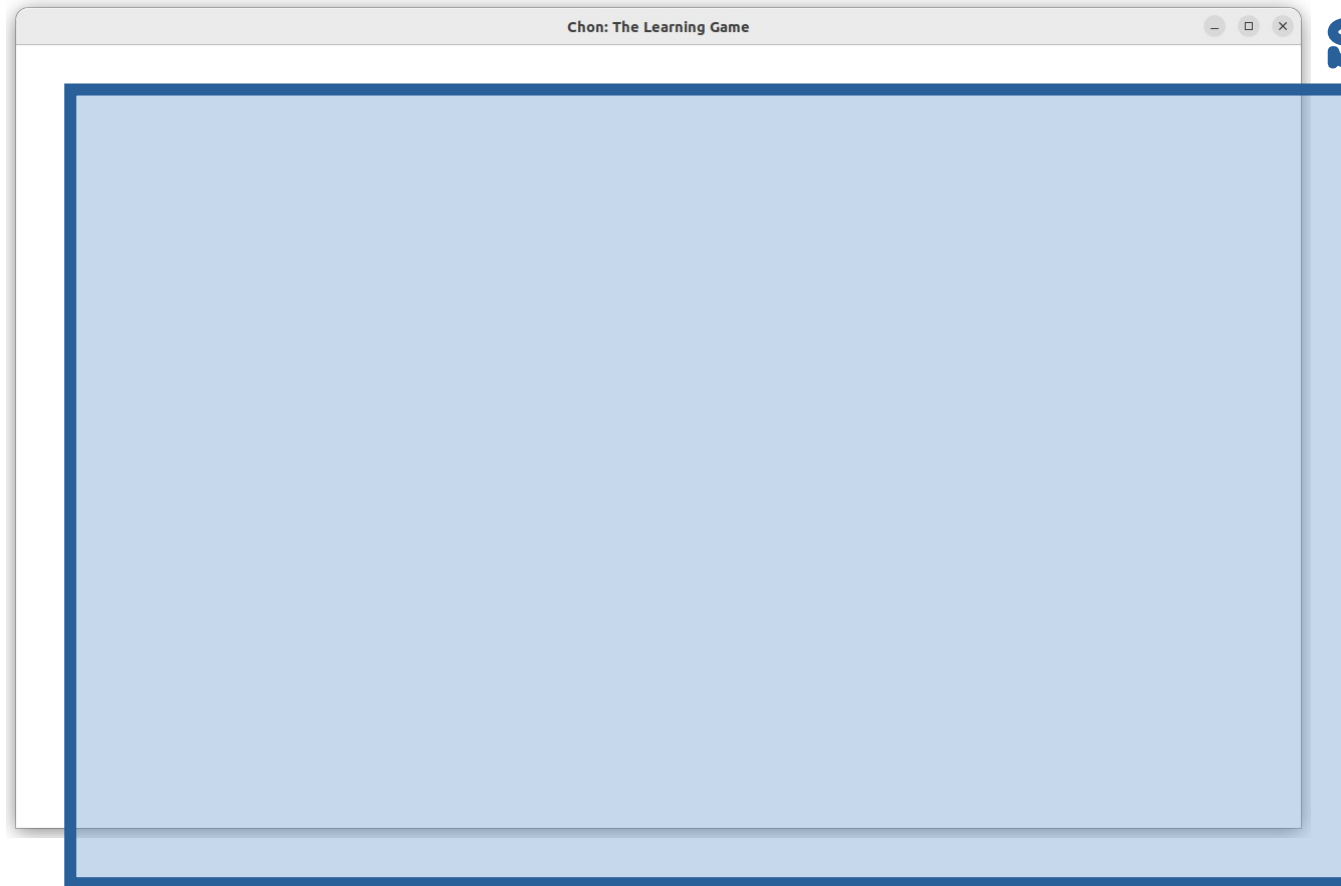
Scene

pane



Scene

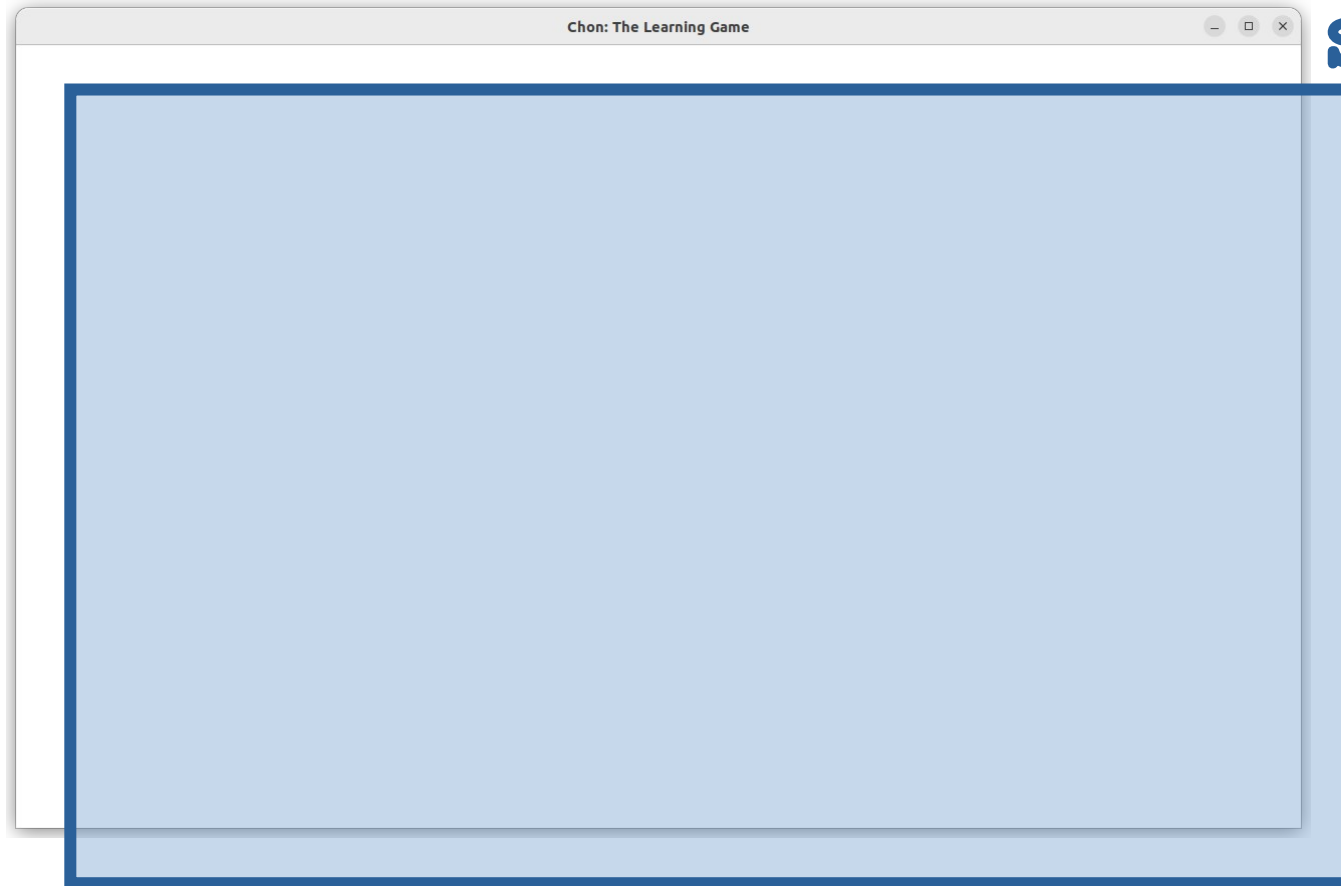
pane



scene

Scene

pane

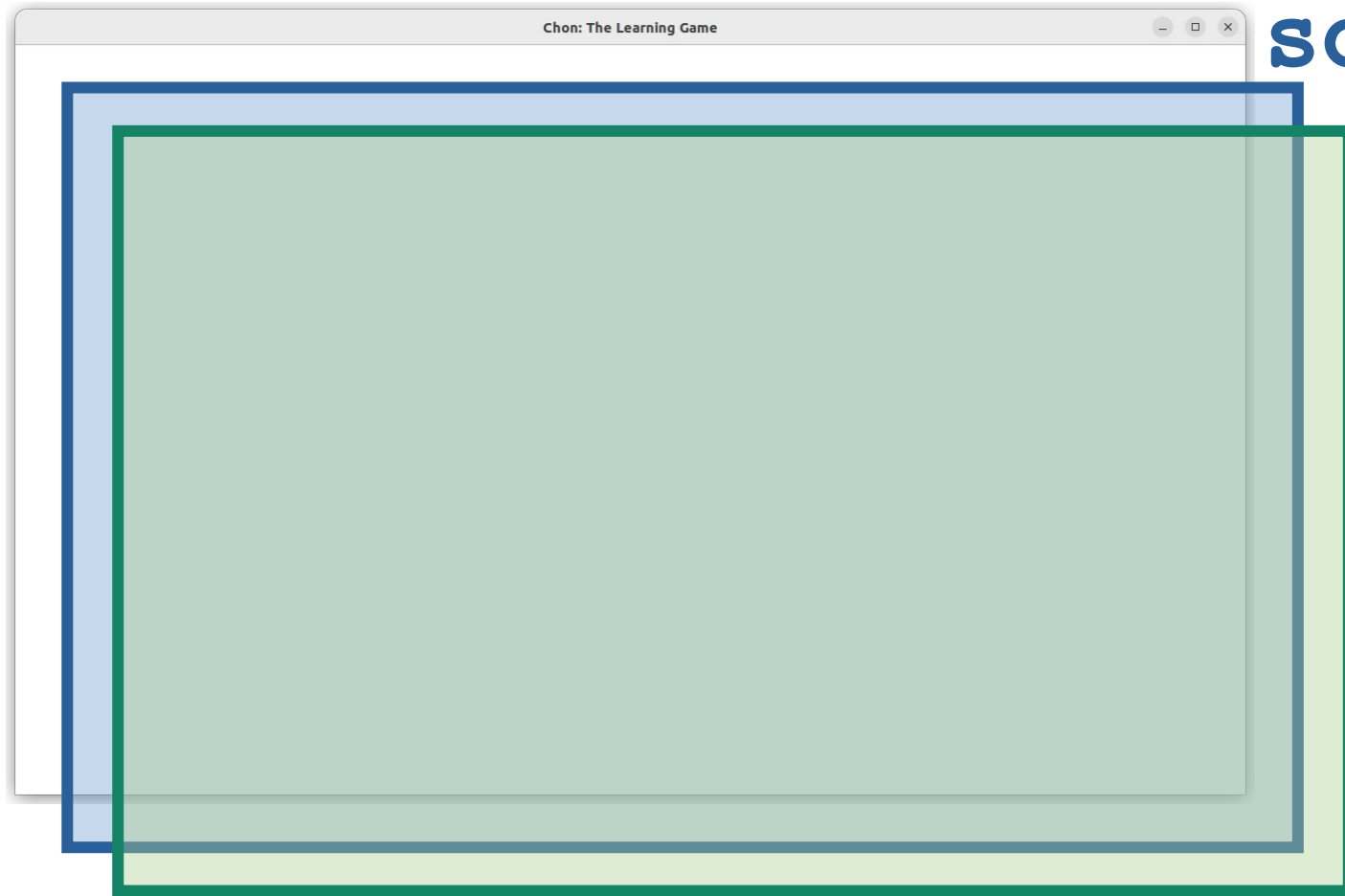


scene

It refers to
the initial
visible
dimensions
of a pane.

Canvas

pane



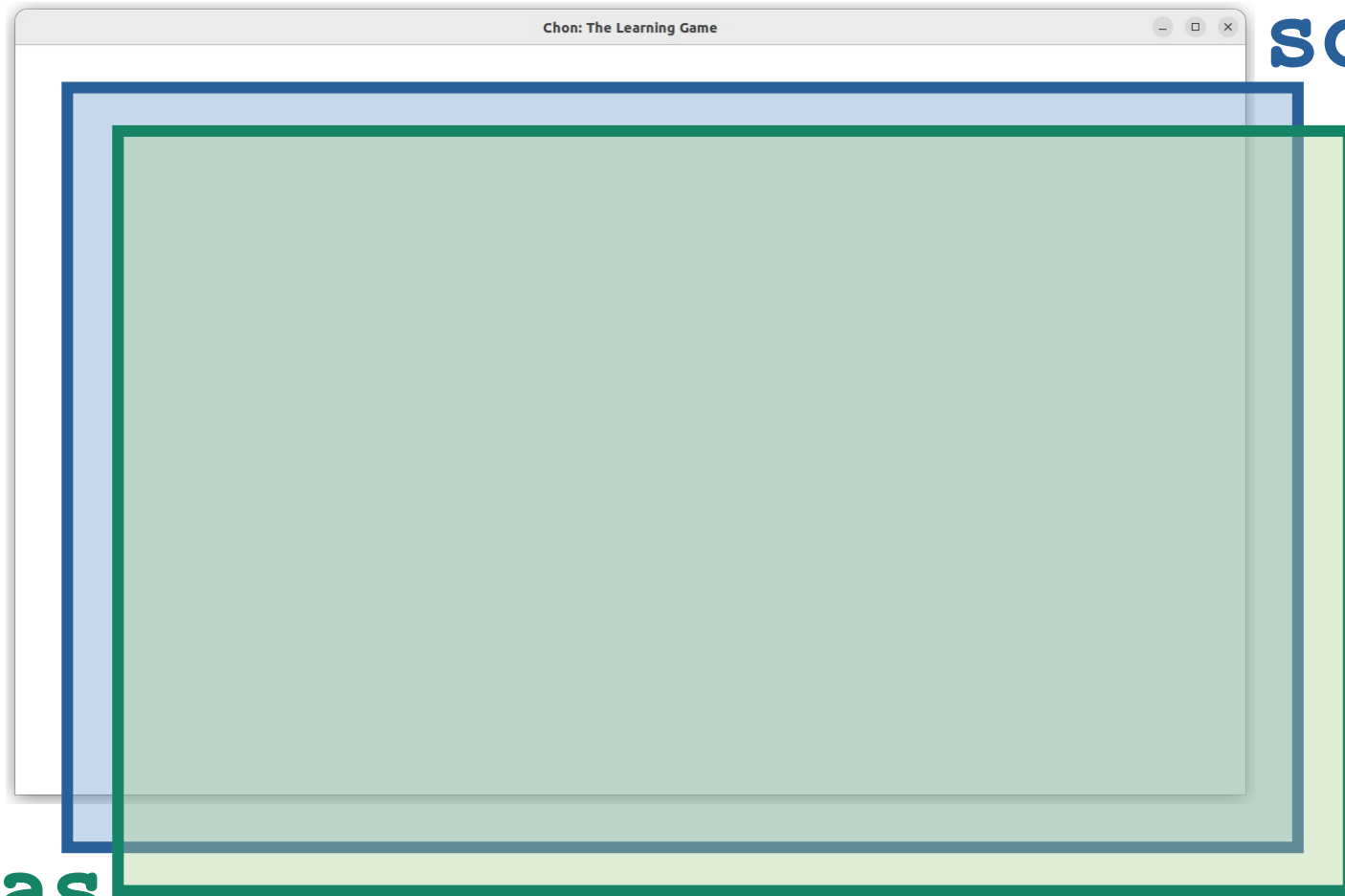
scene

Canvas

pane

scene

canvas



Canvas

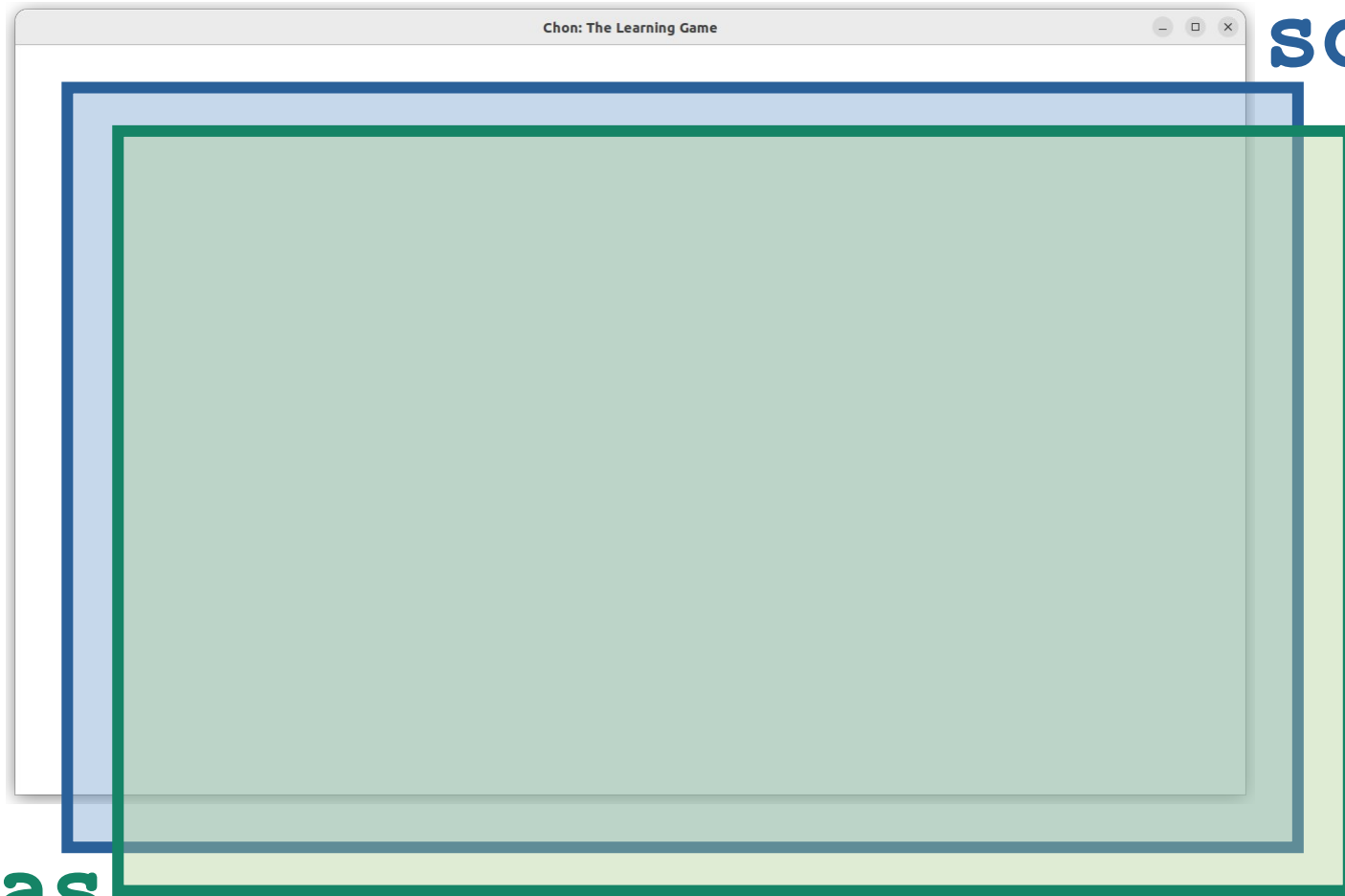
pane

scene

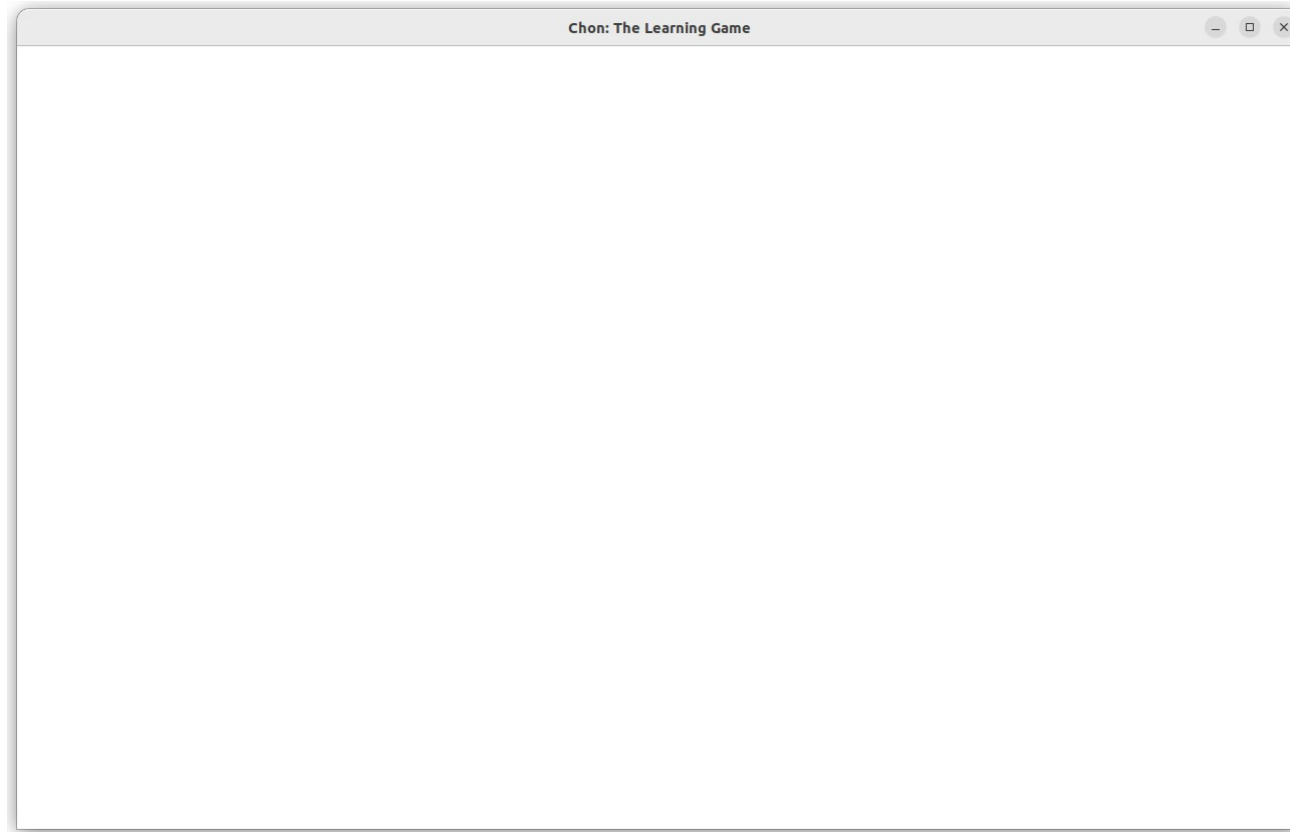
The canvas is
the part of
the screen
where graphics
are displayed
and printed.



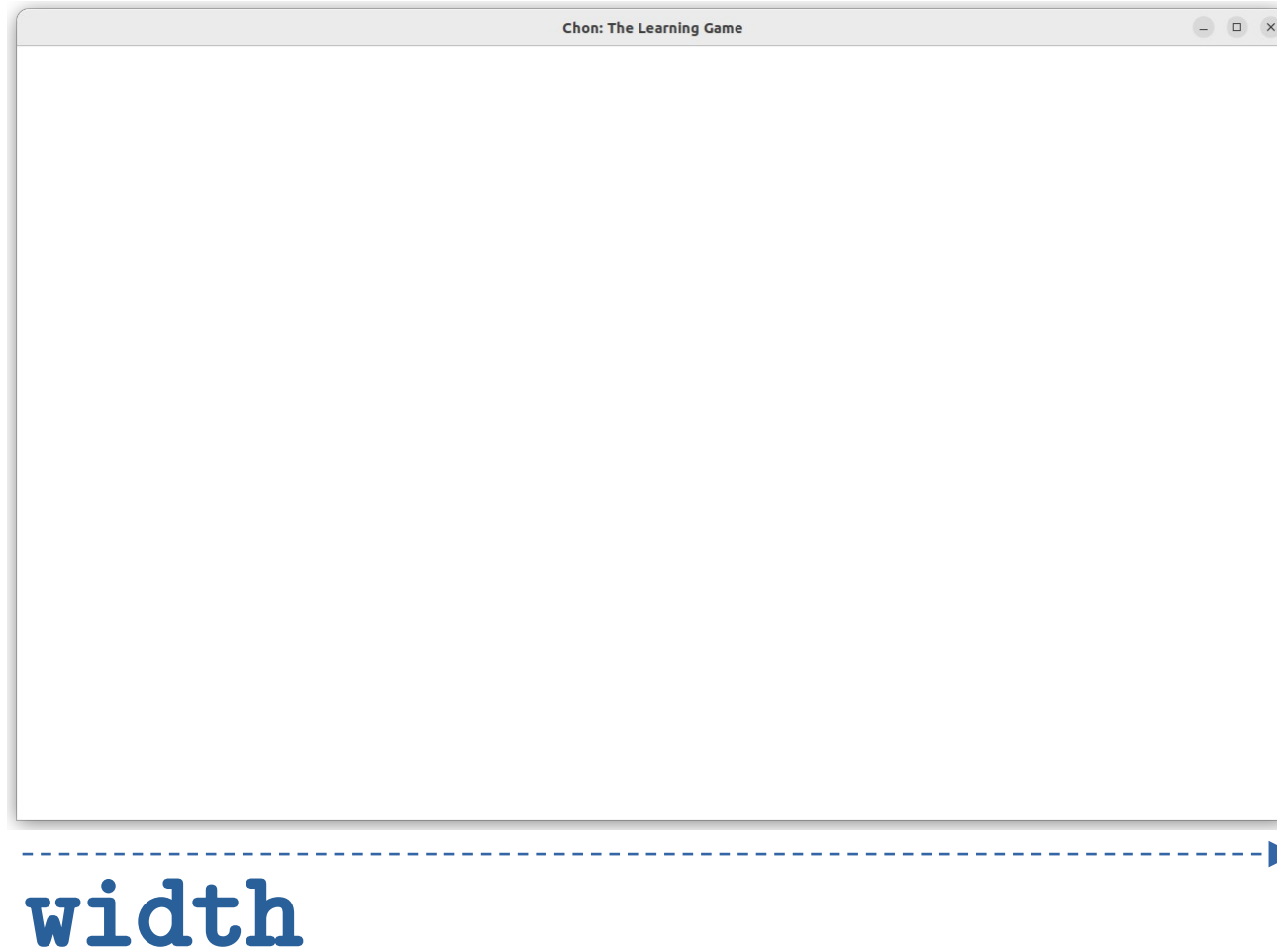
canvas



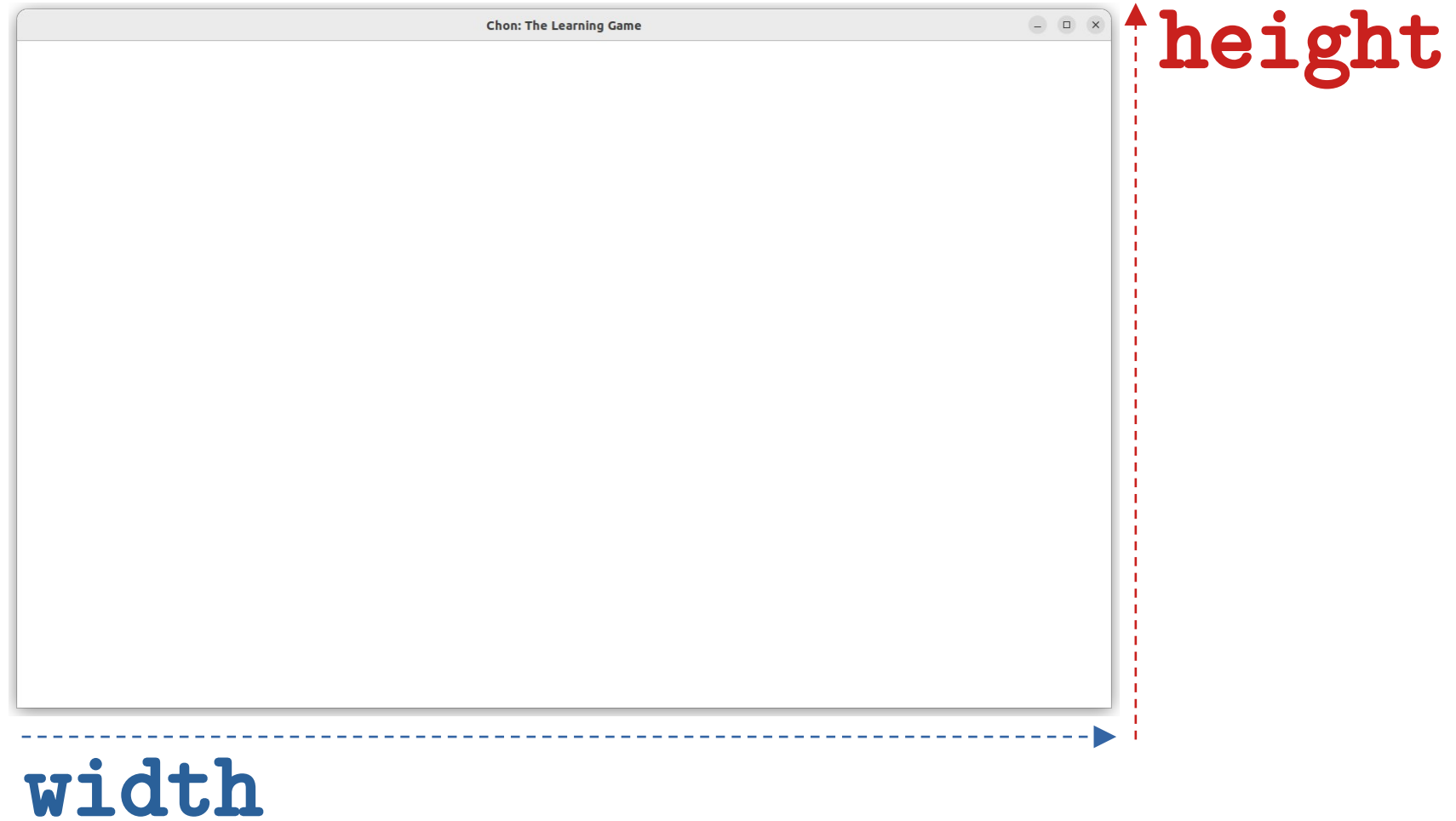
Object's Dimension: Width and Height



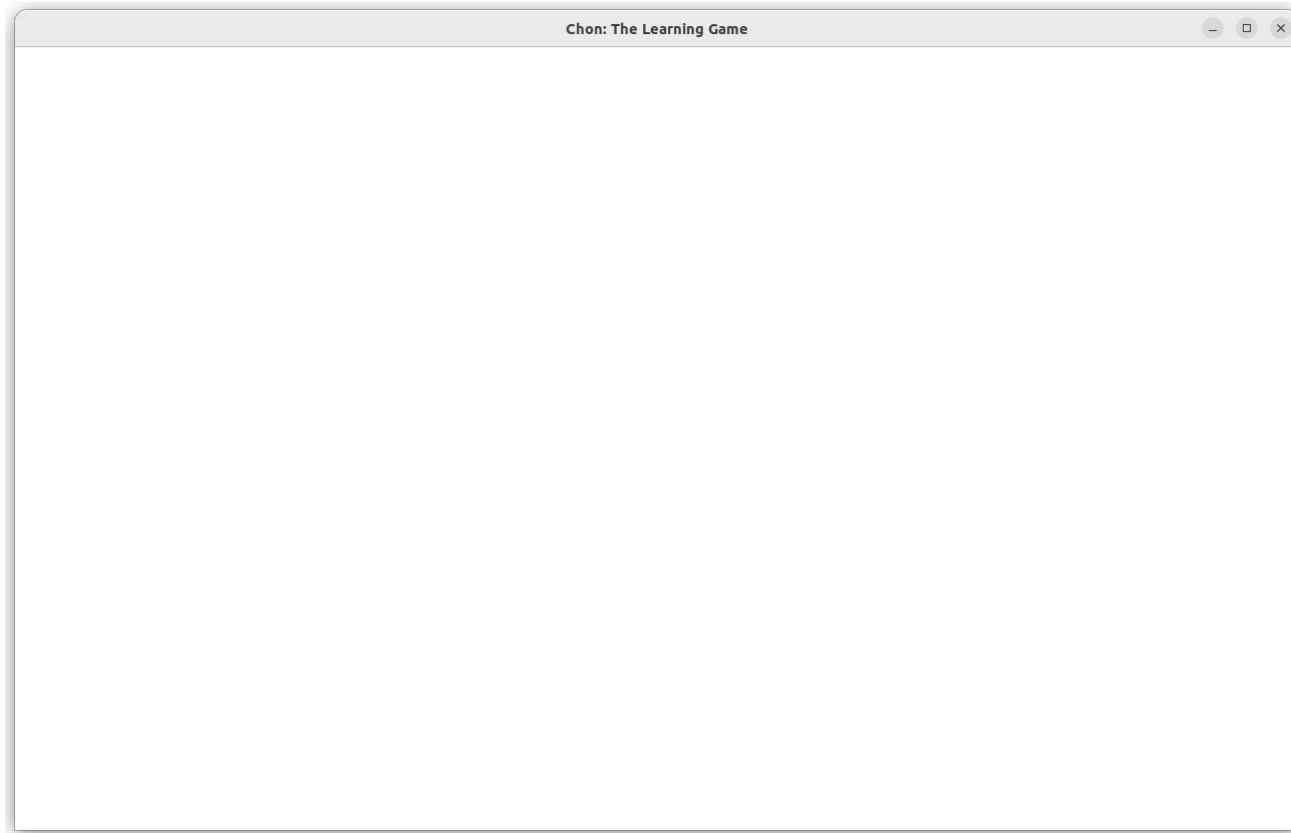
Object's Dimension: Width and Height



Object's Dimension: Width and Height



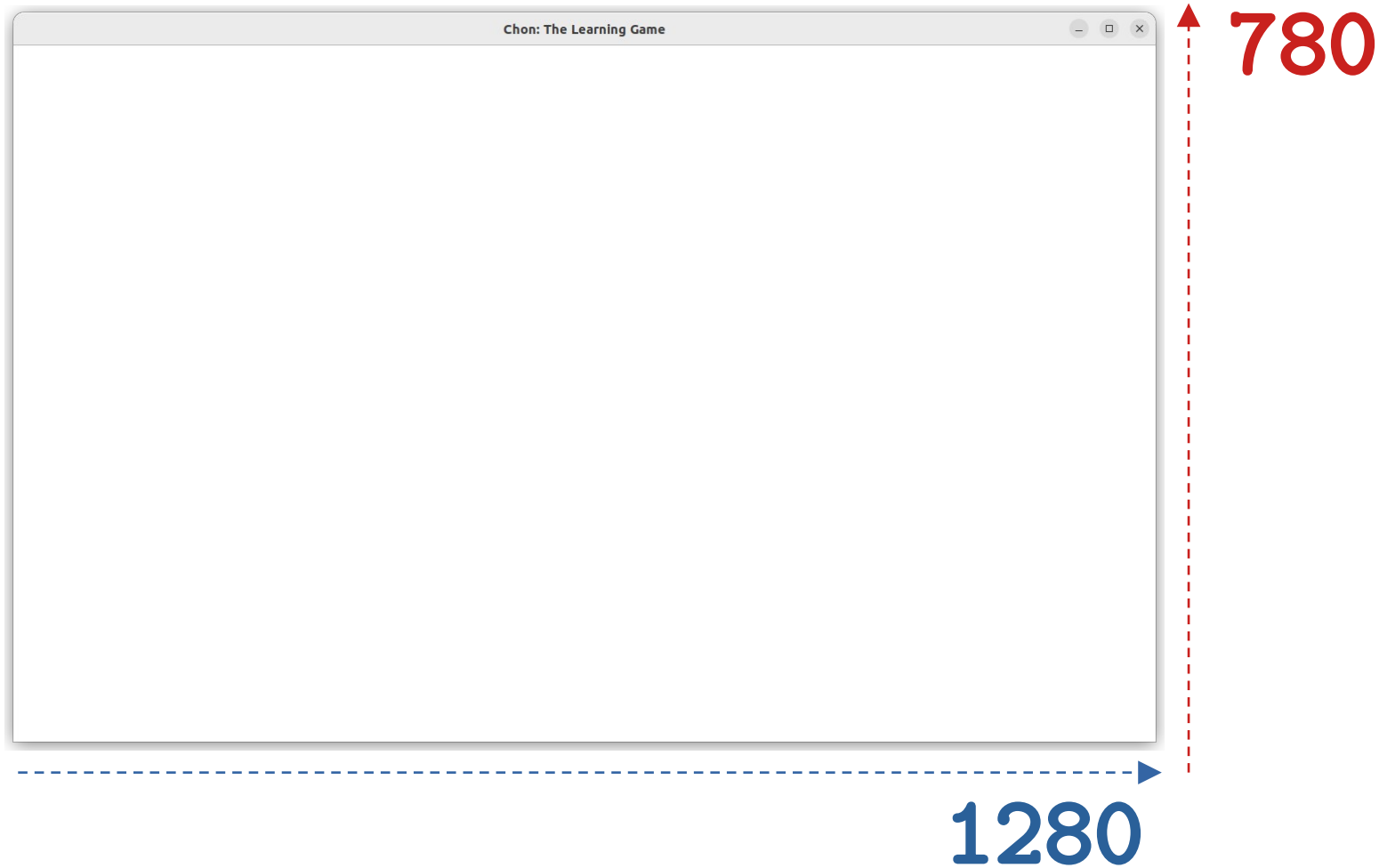
Object's Dimension: Width and Height



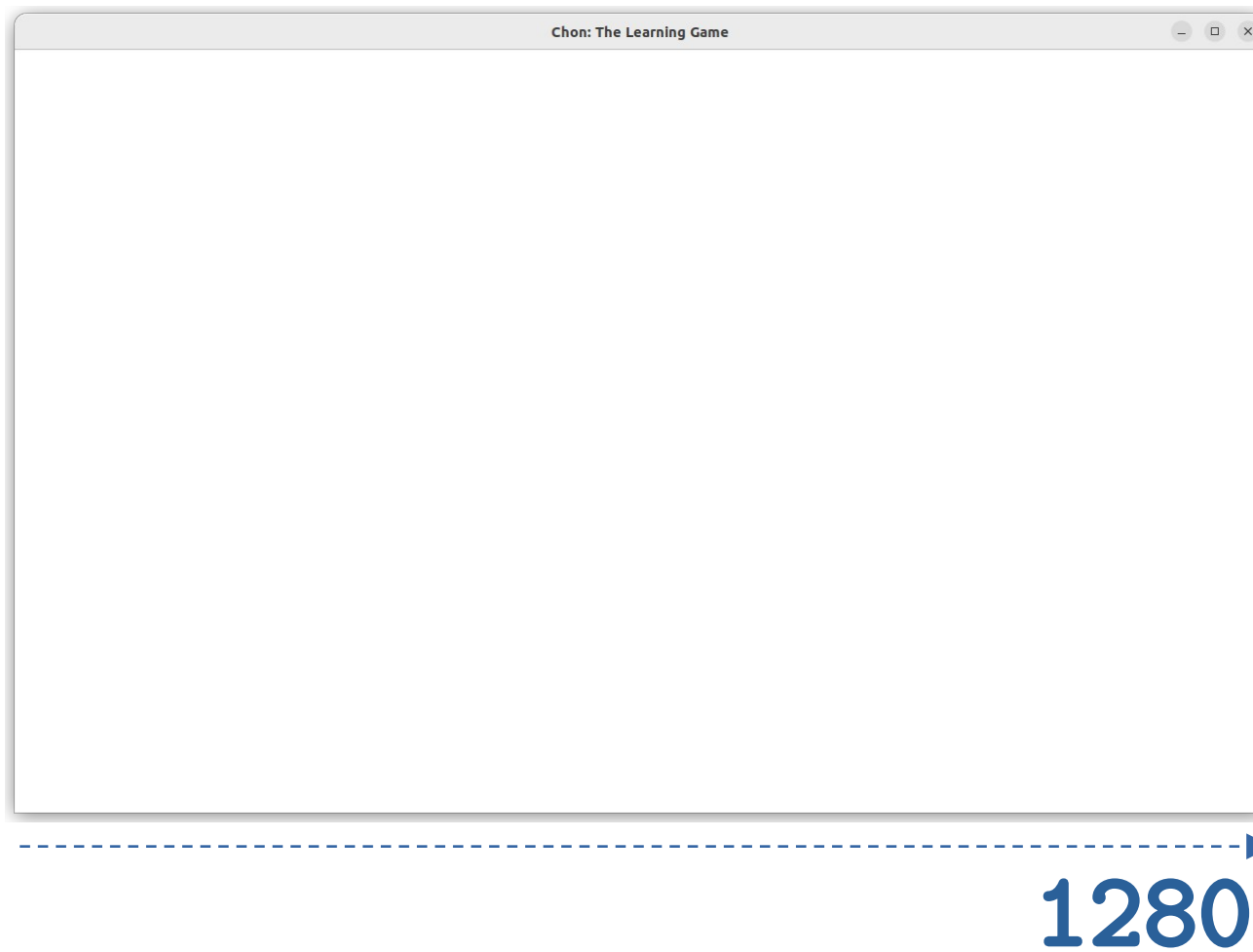
Object's Dimension: Width and Height



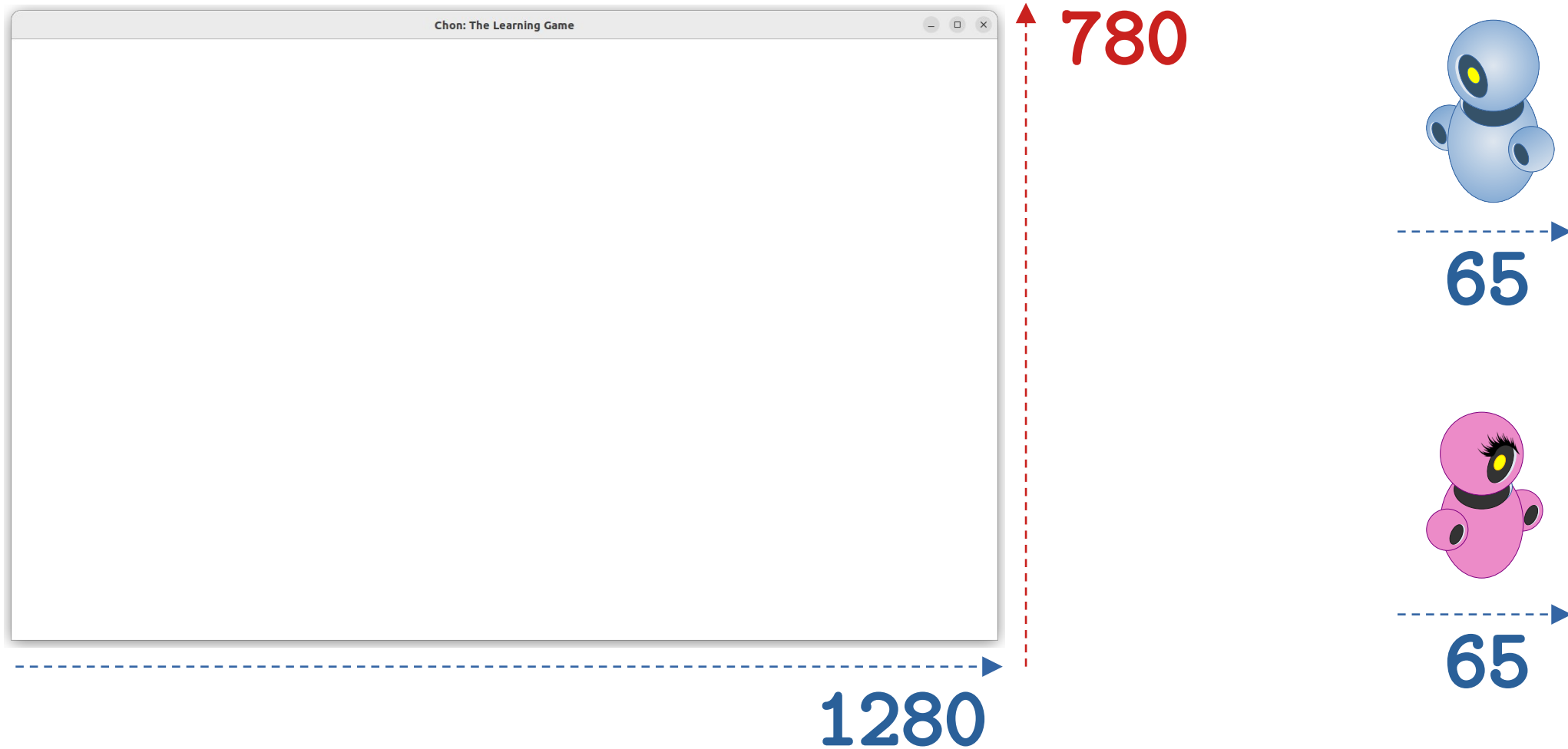
Object's Dimension: Width and Height



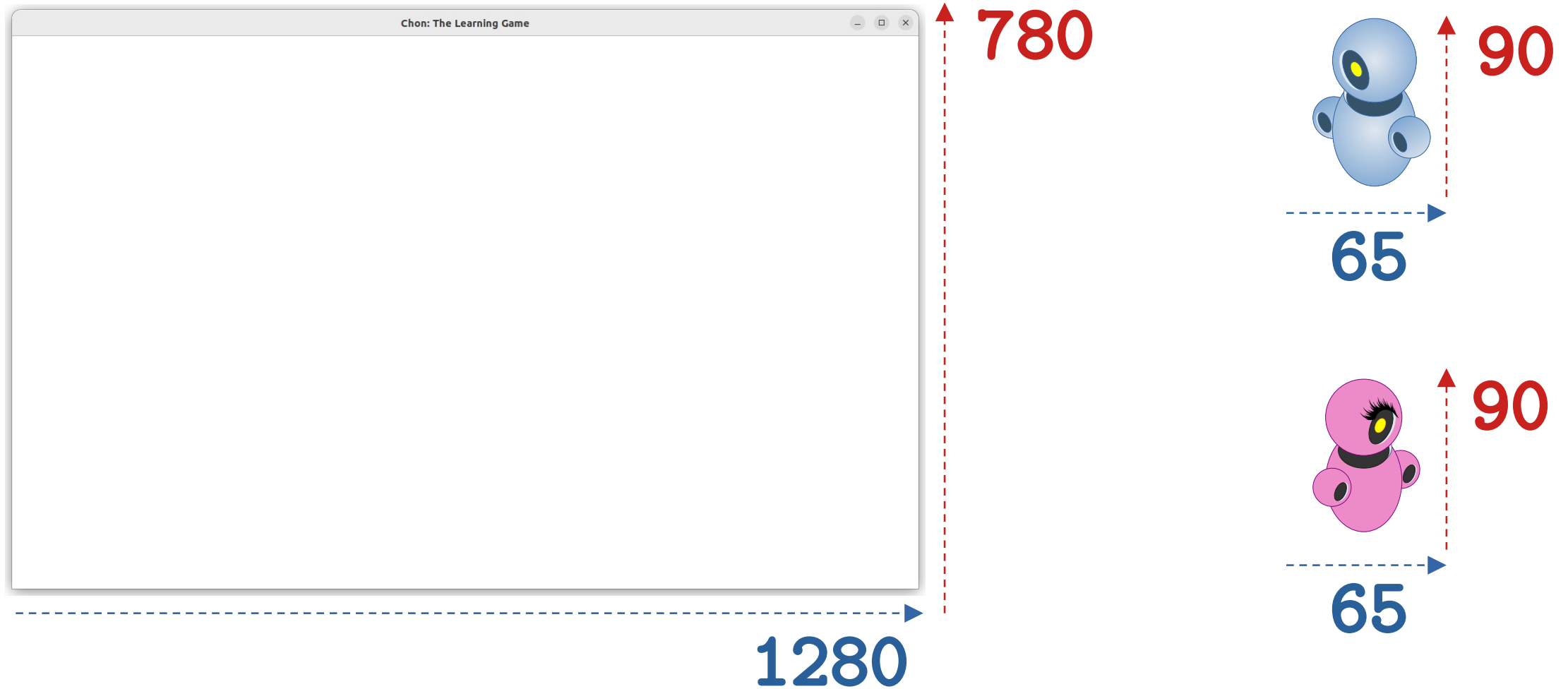
Object's Dimension: Width and Height



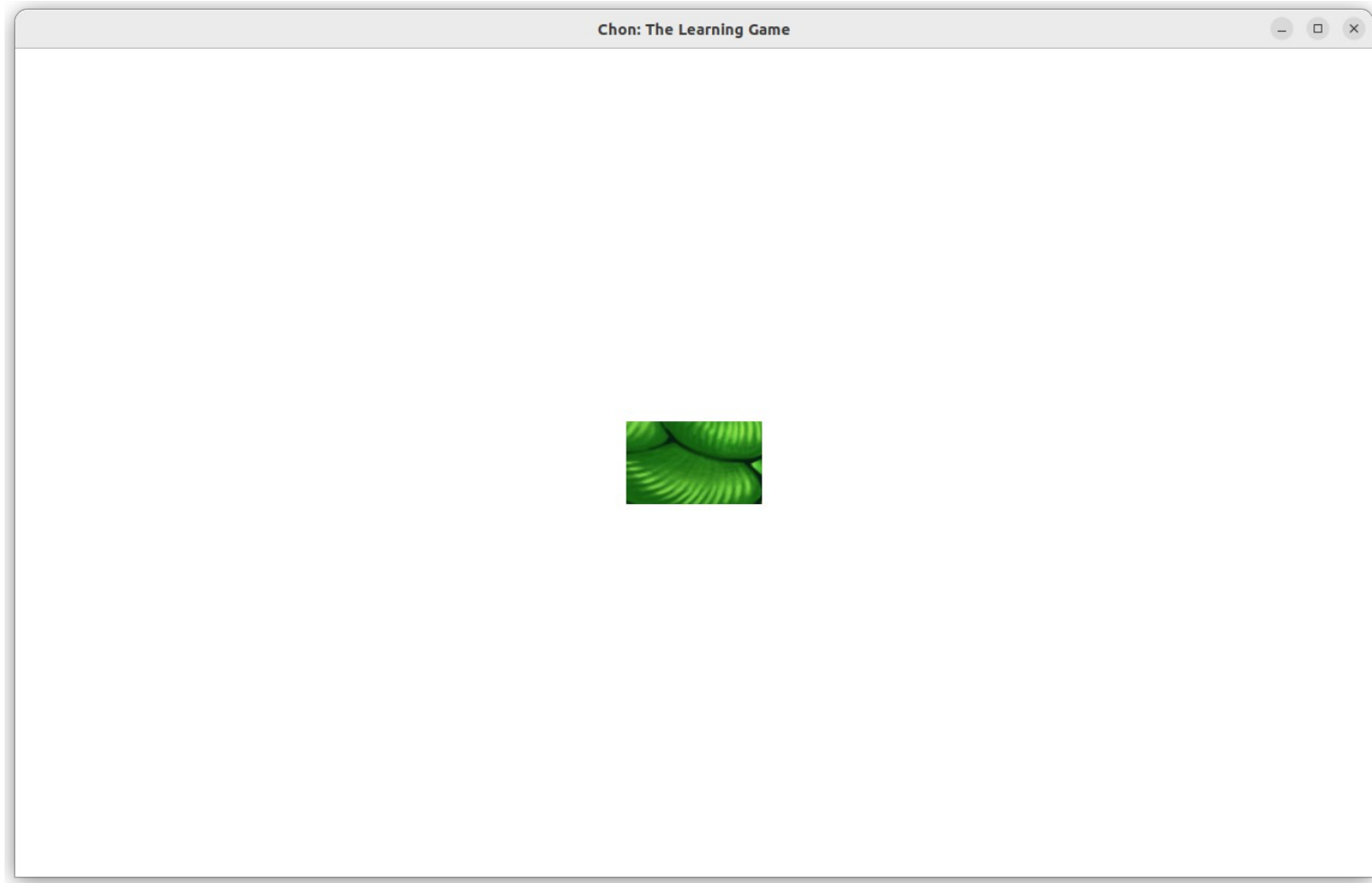
Object's Dimension: Width and Height



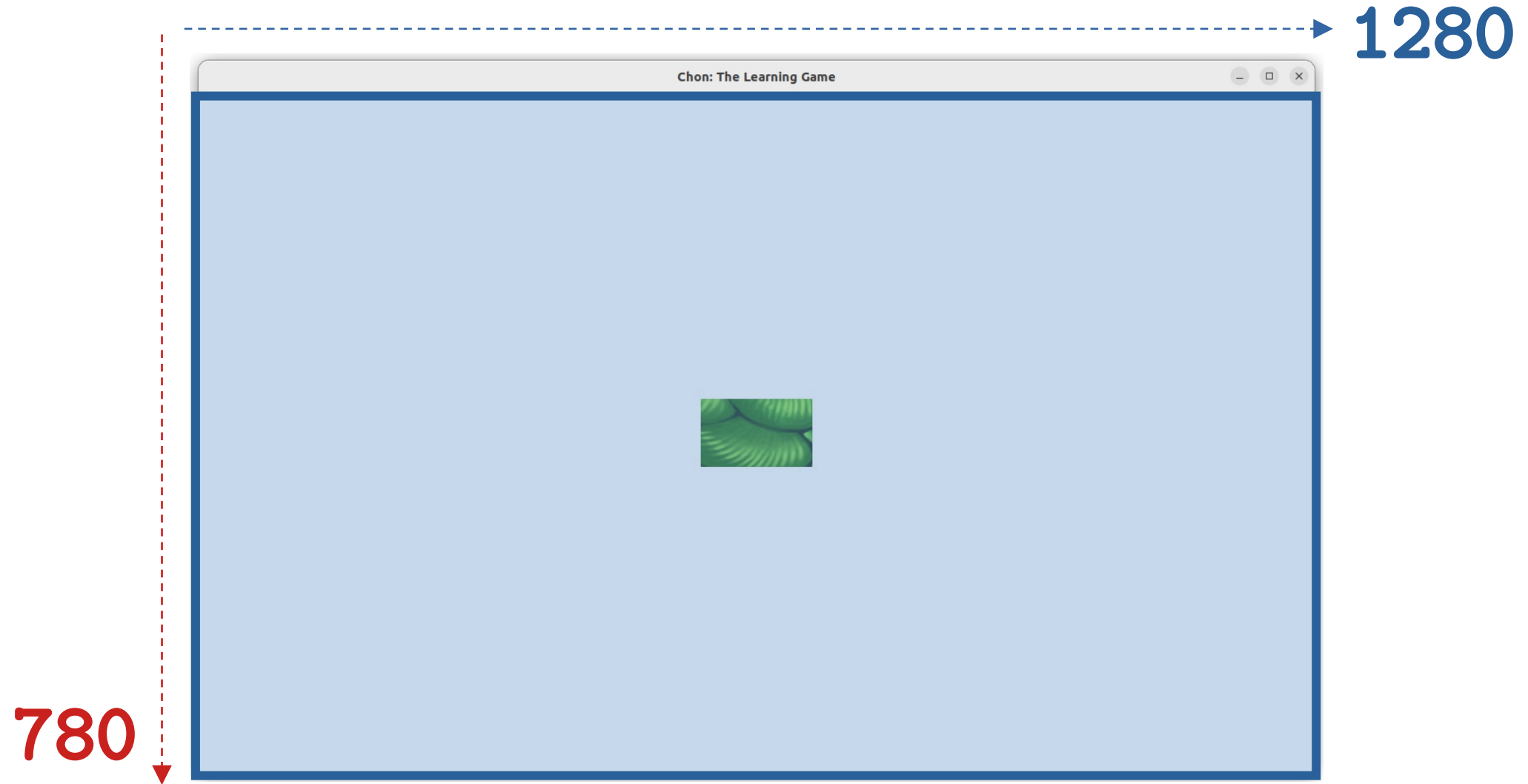
Object's Dimension: Width and Height



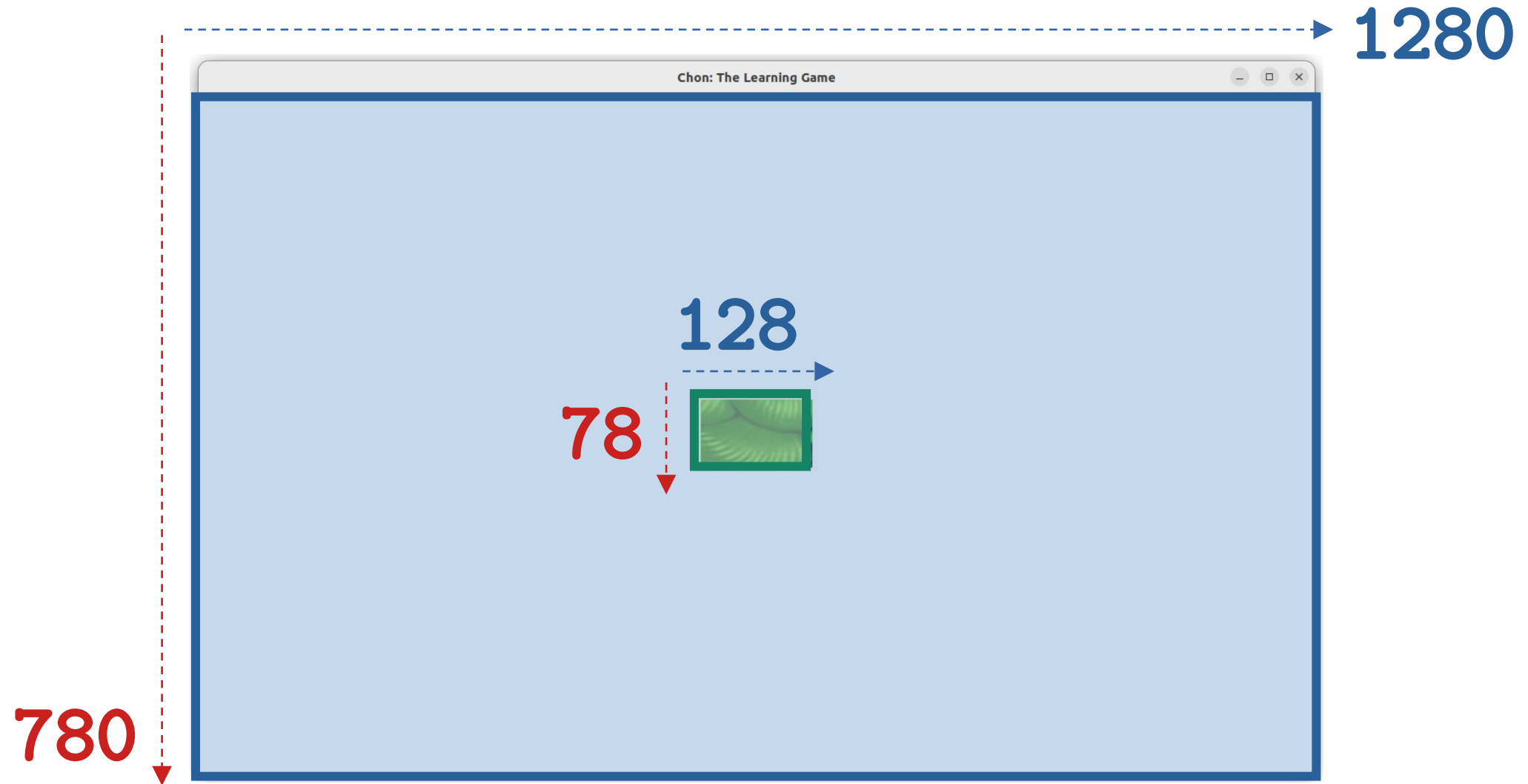
Canvas Example



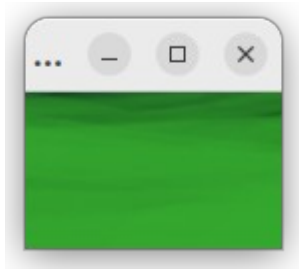
Canvas Example



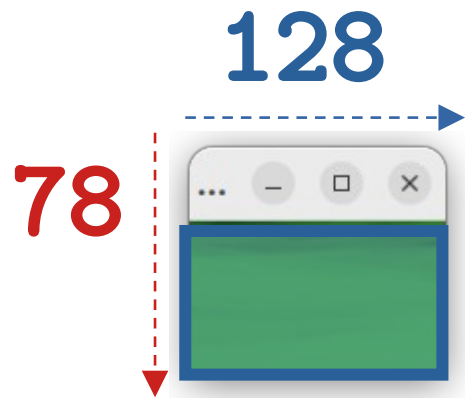
Canvas Example



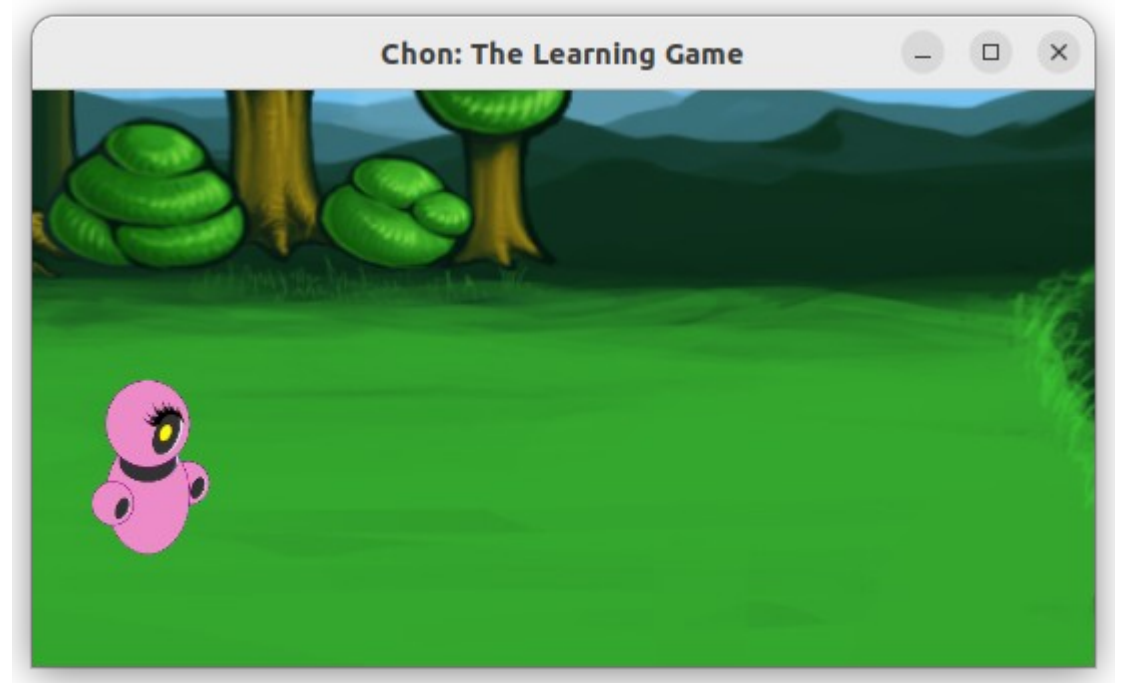
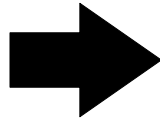
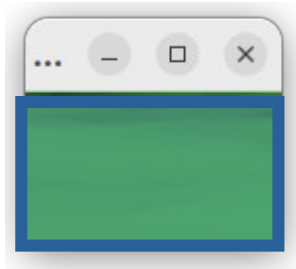
Scene Example



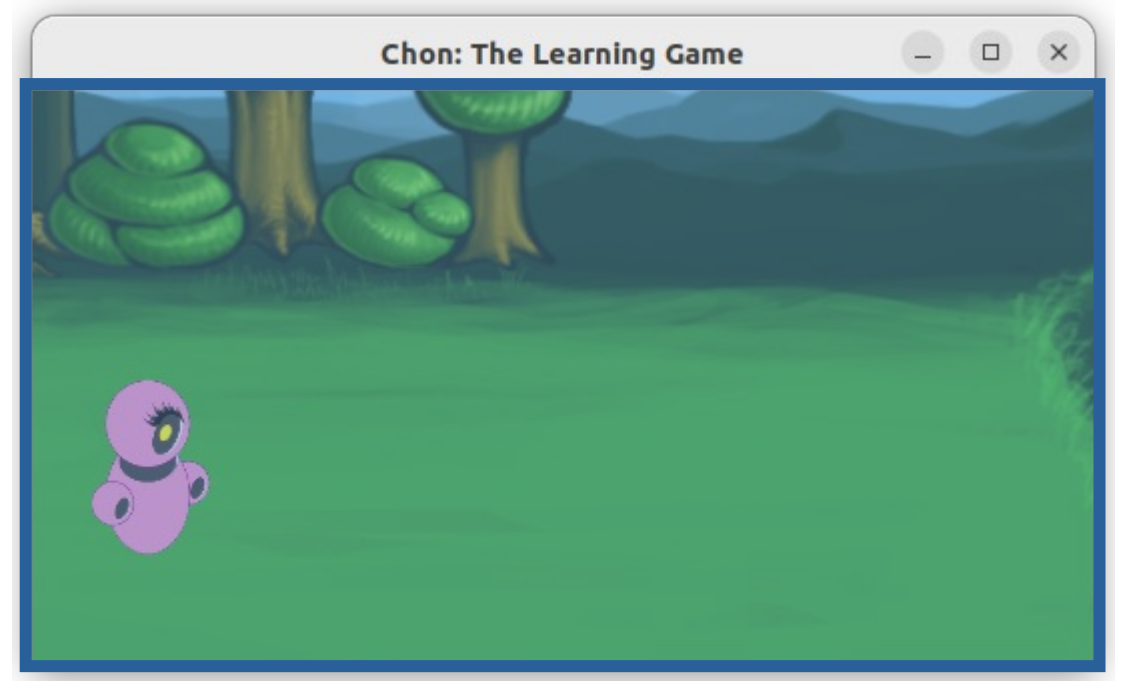
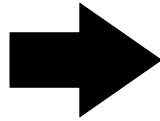
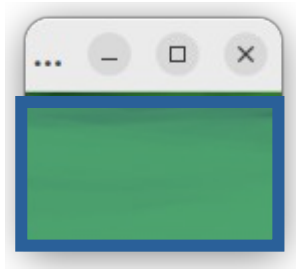
Scene Example



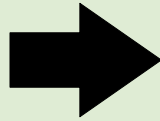
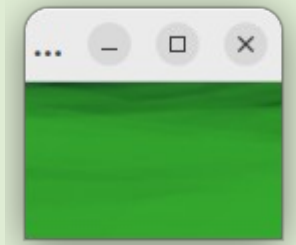
Scene Example



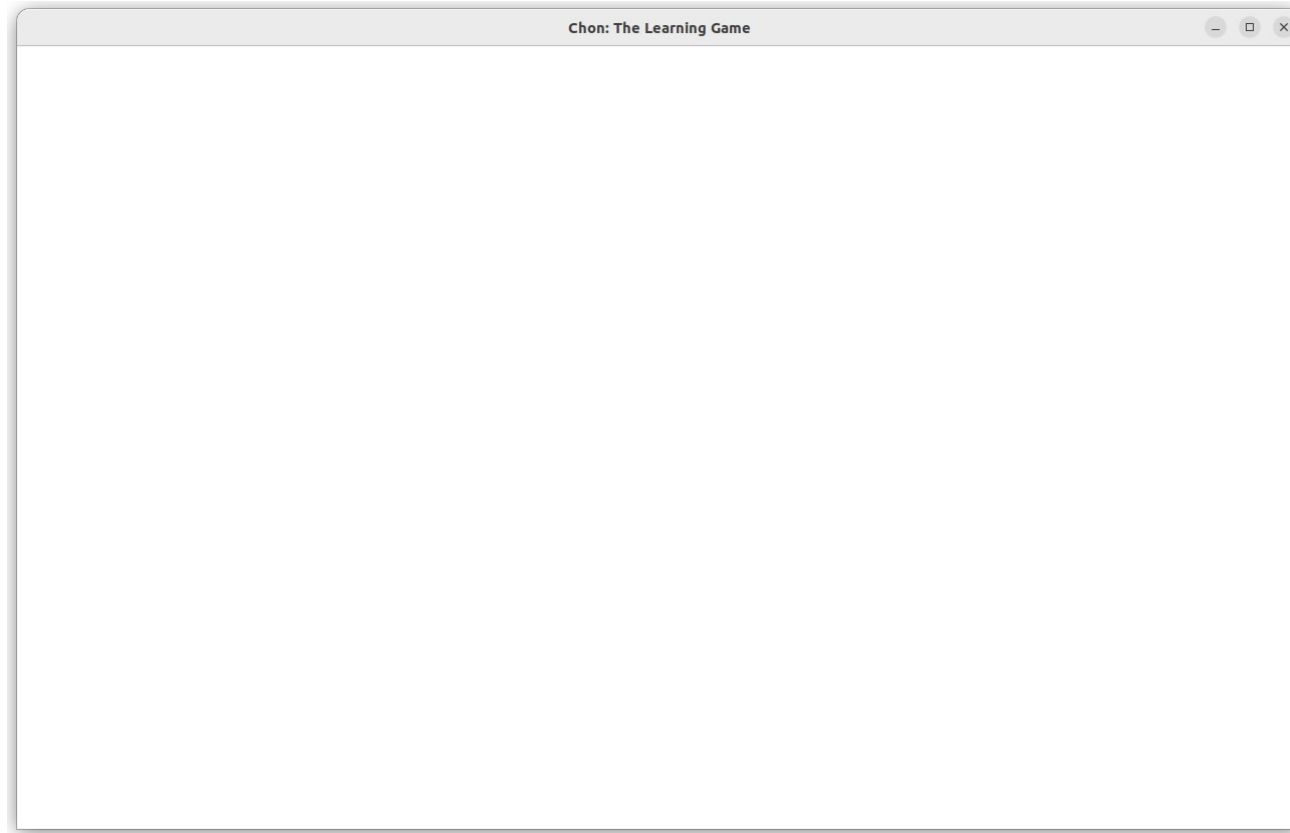
Scene Example



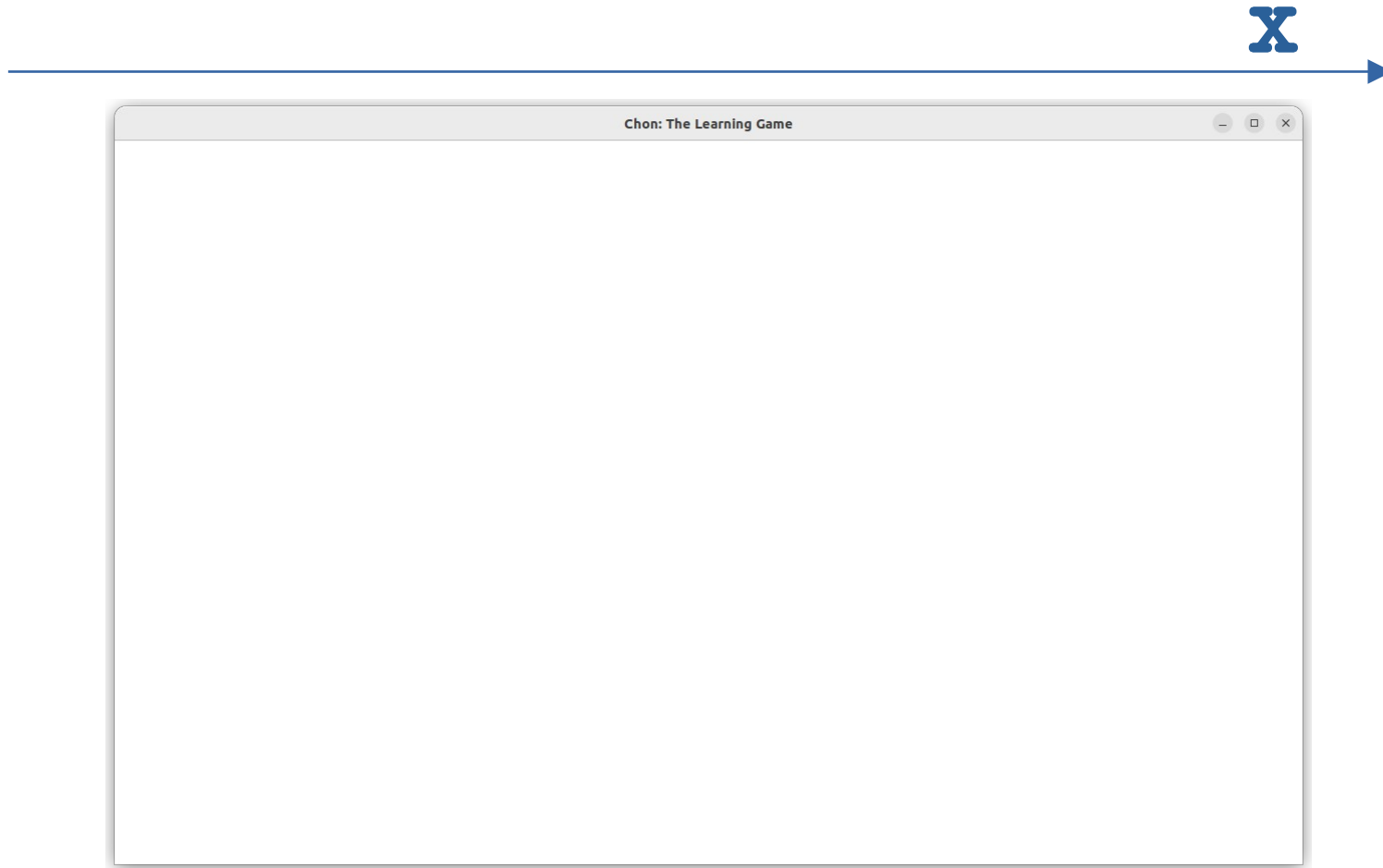
Scene Example



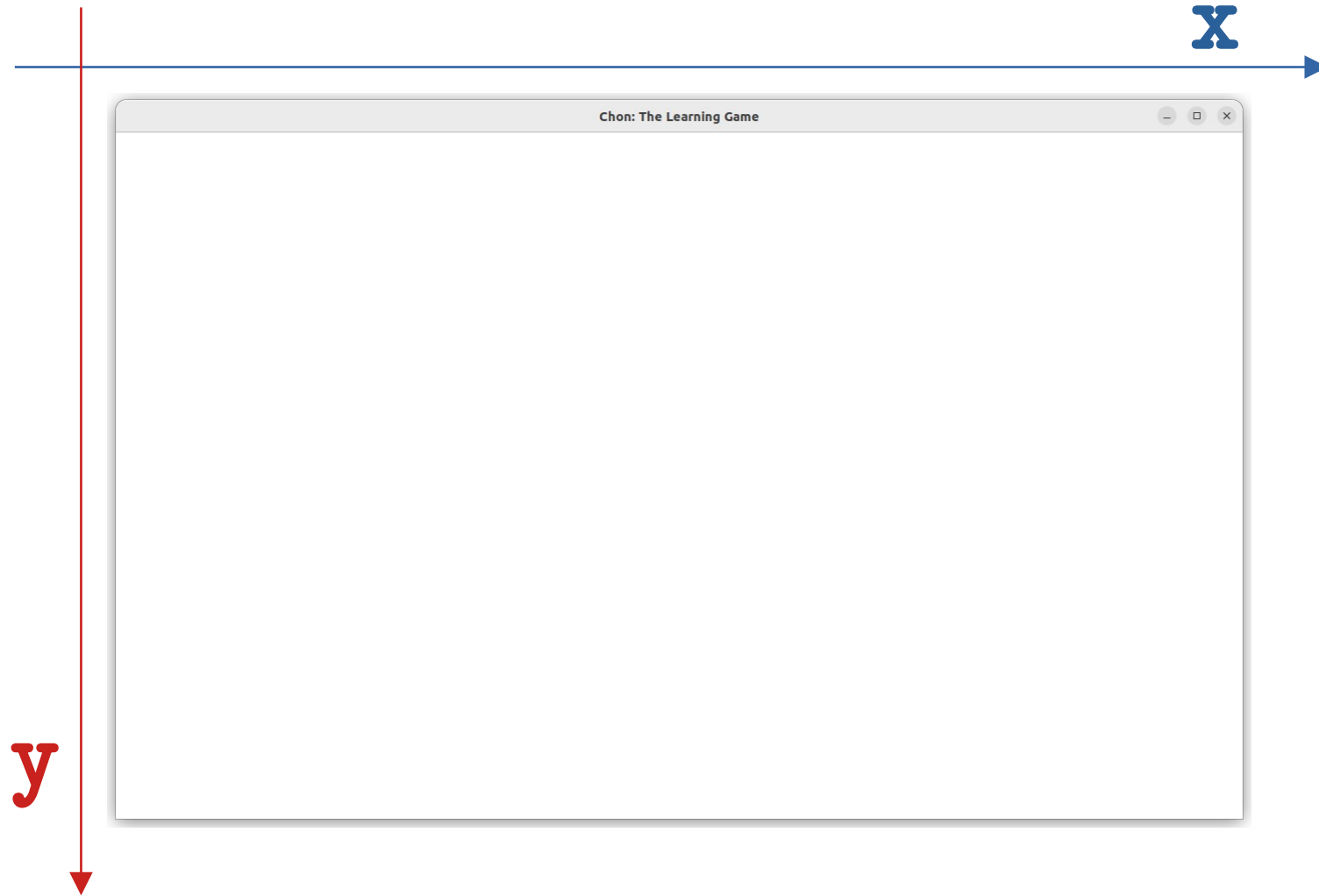
Positioning System



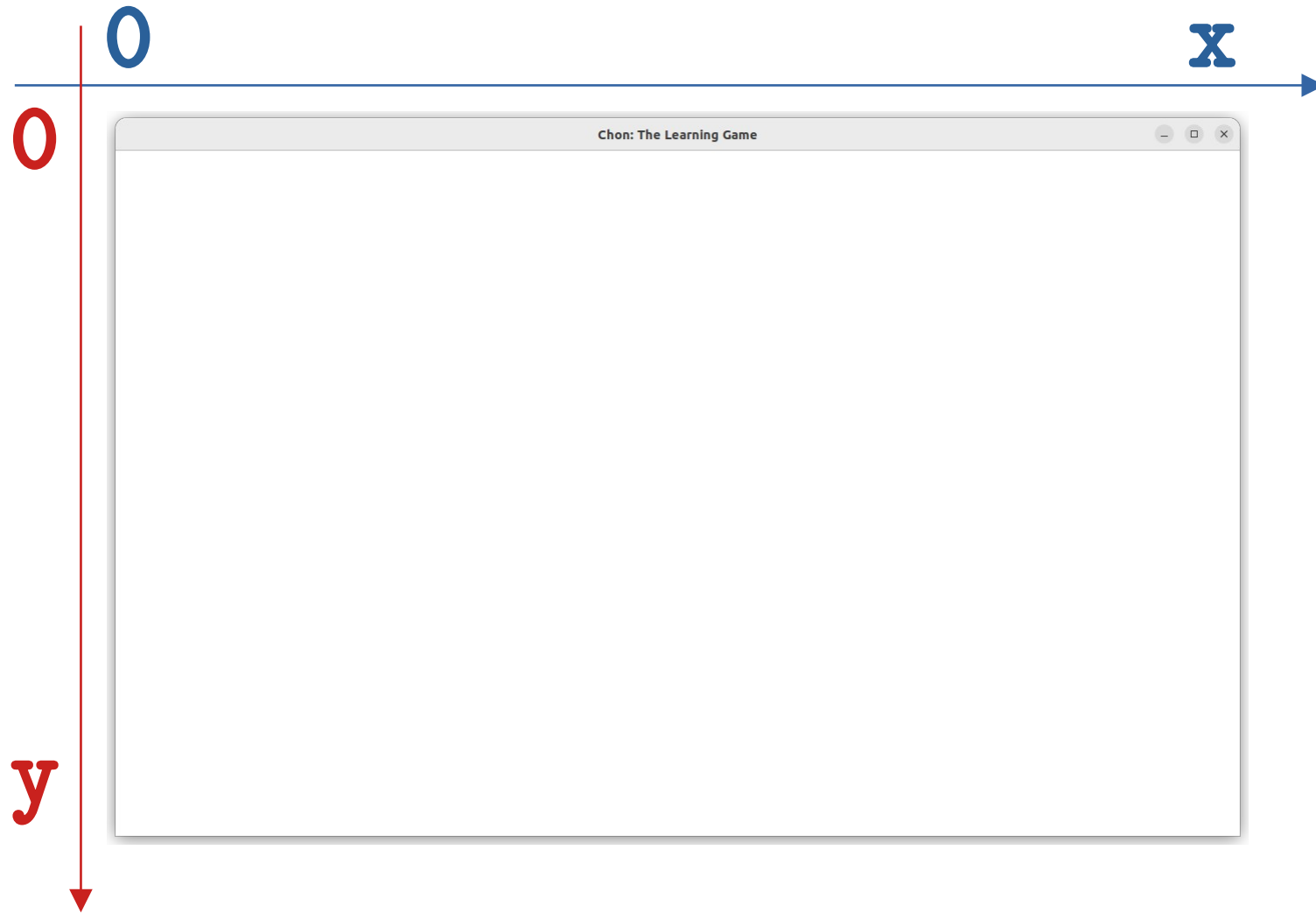
Positioning System



Positioning System



Positioning System



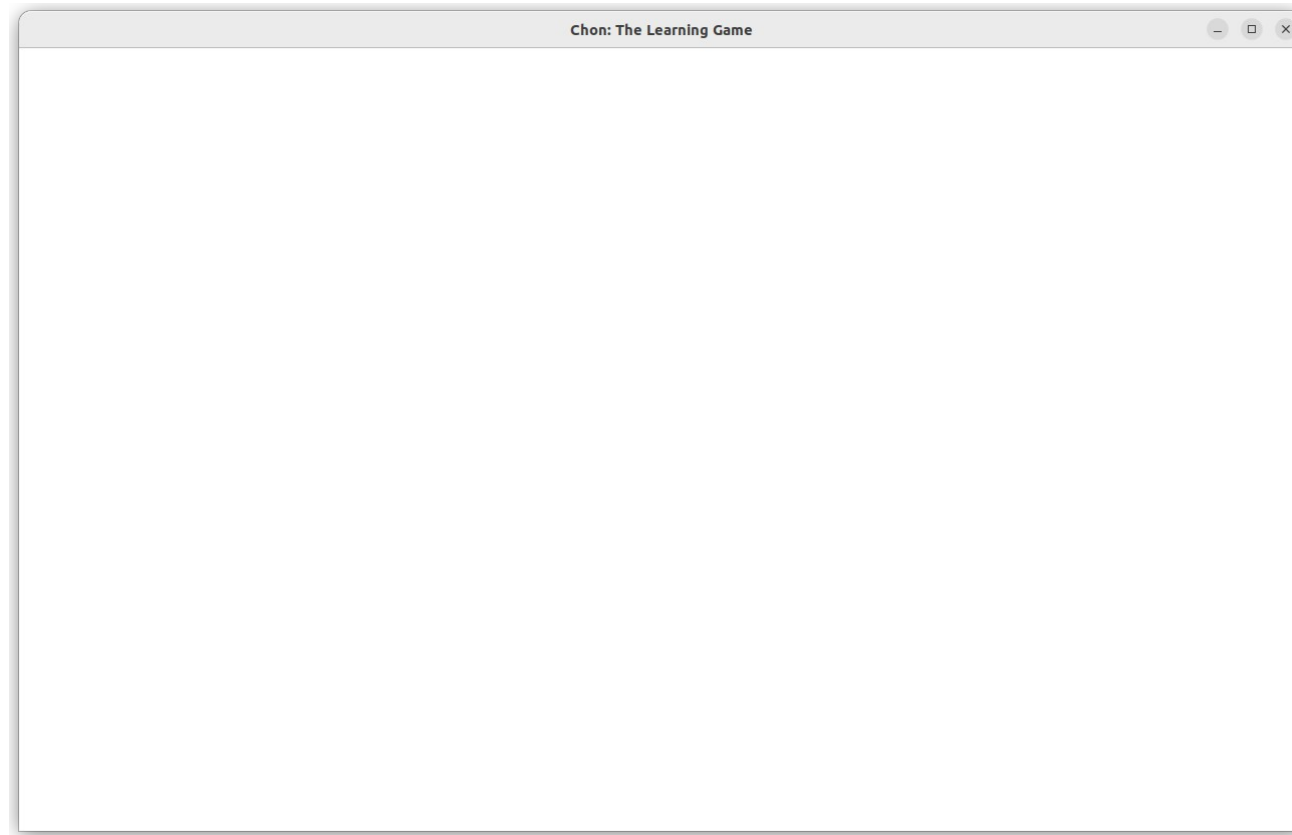
Positioning System



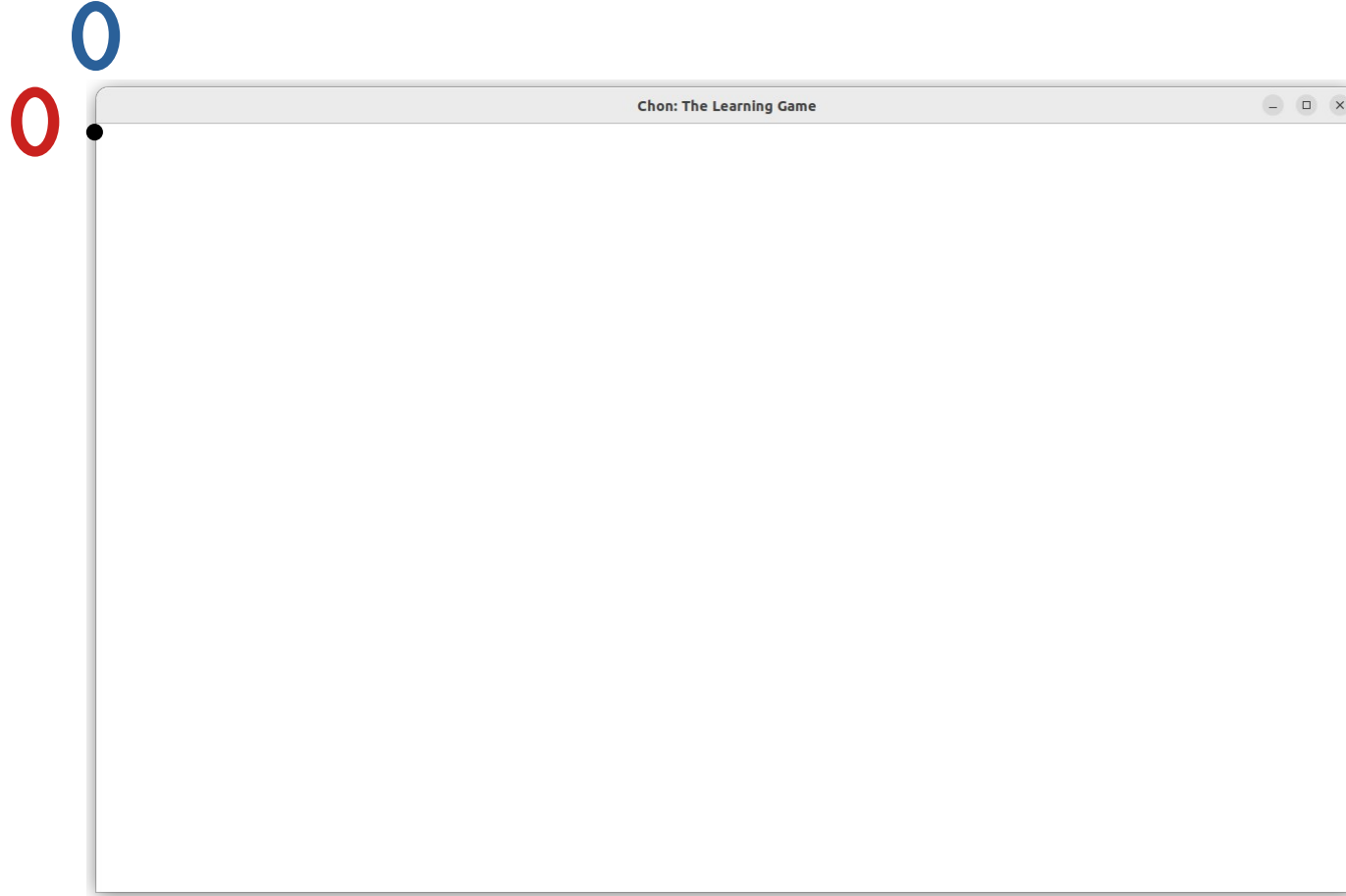
Positioning System



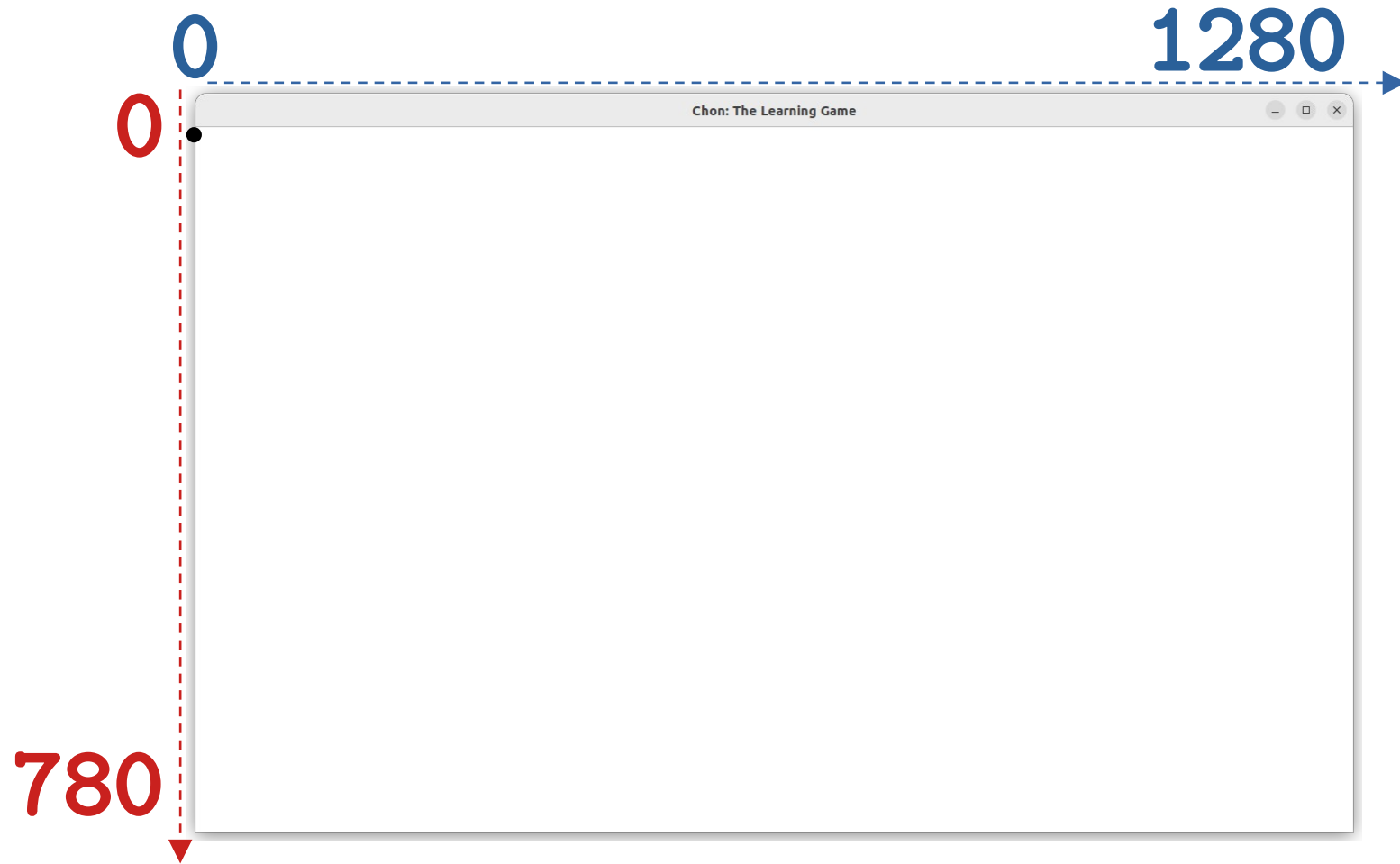
Drawing the Background



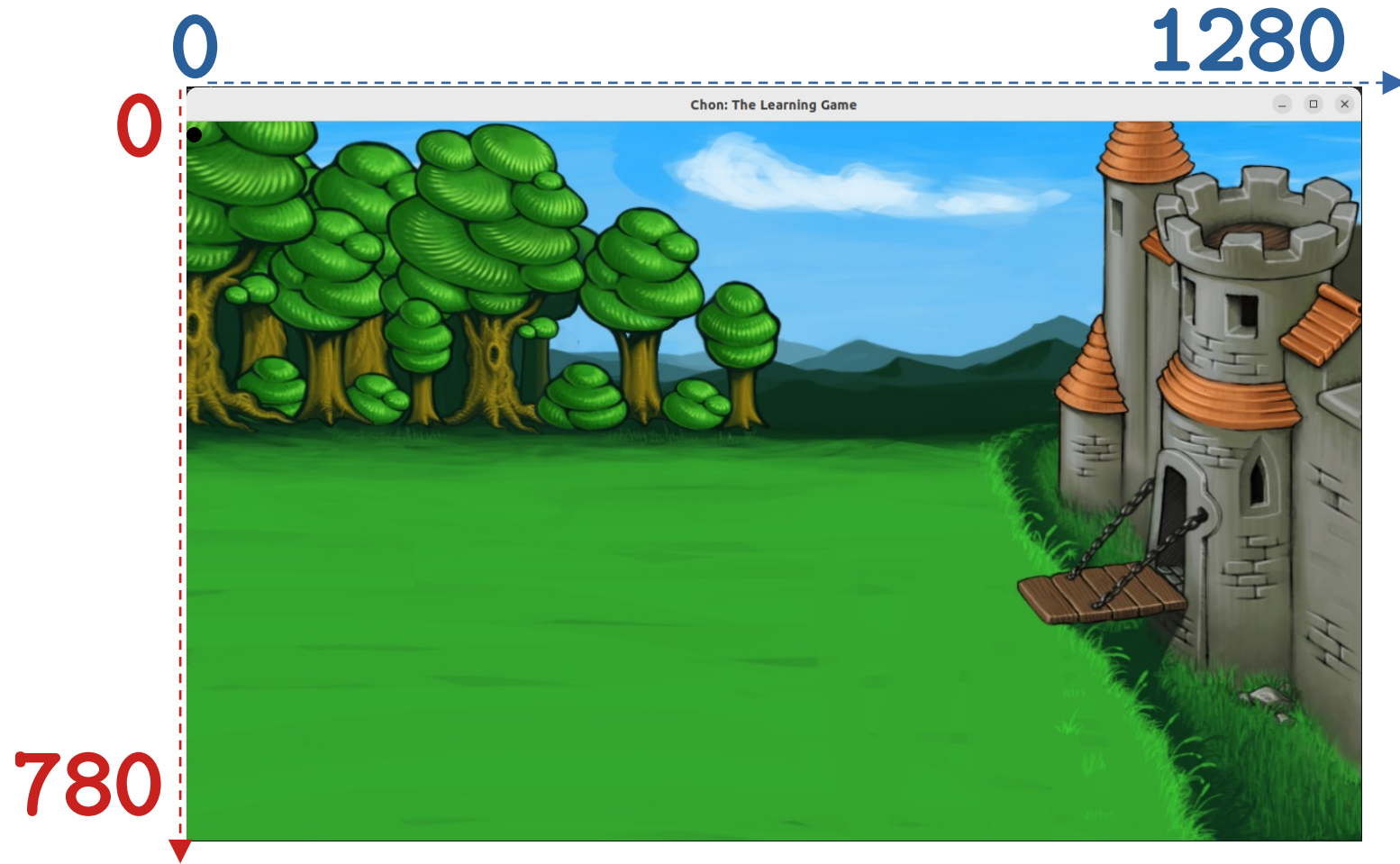
Drawing the Background



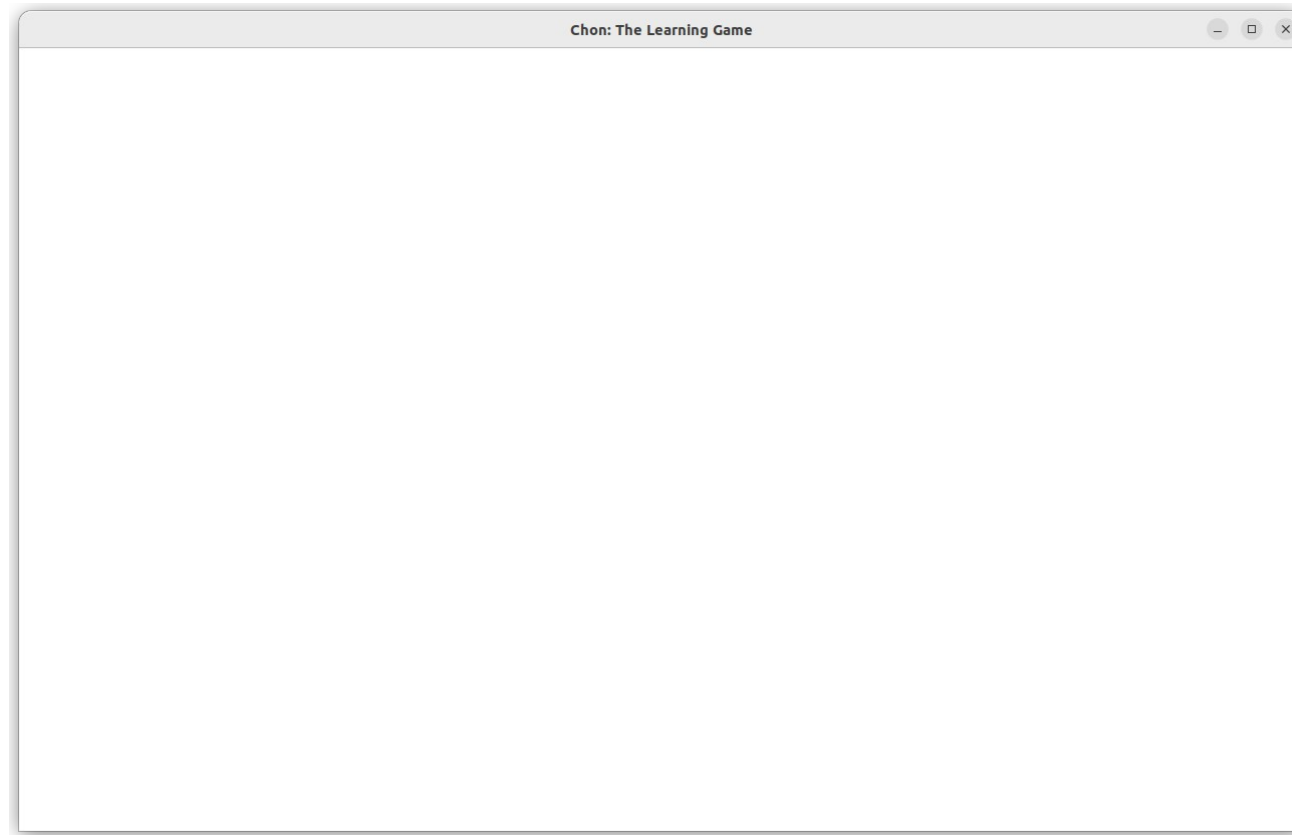
Drawing the Background



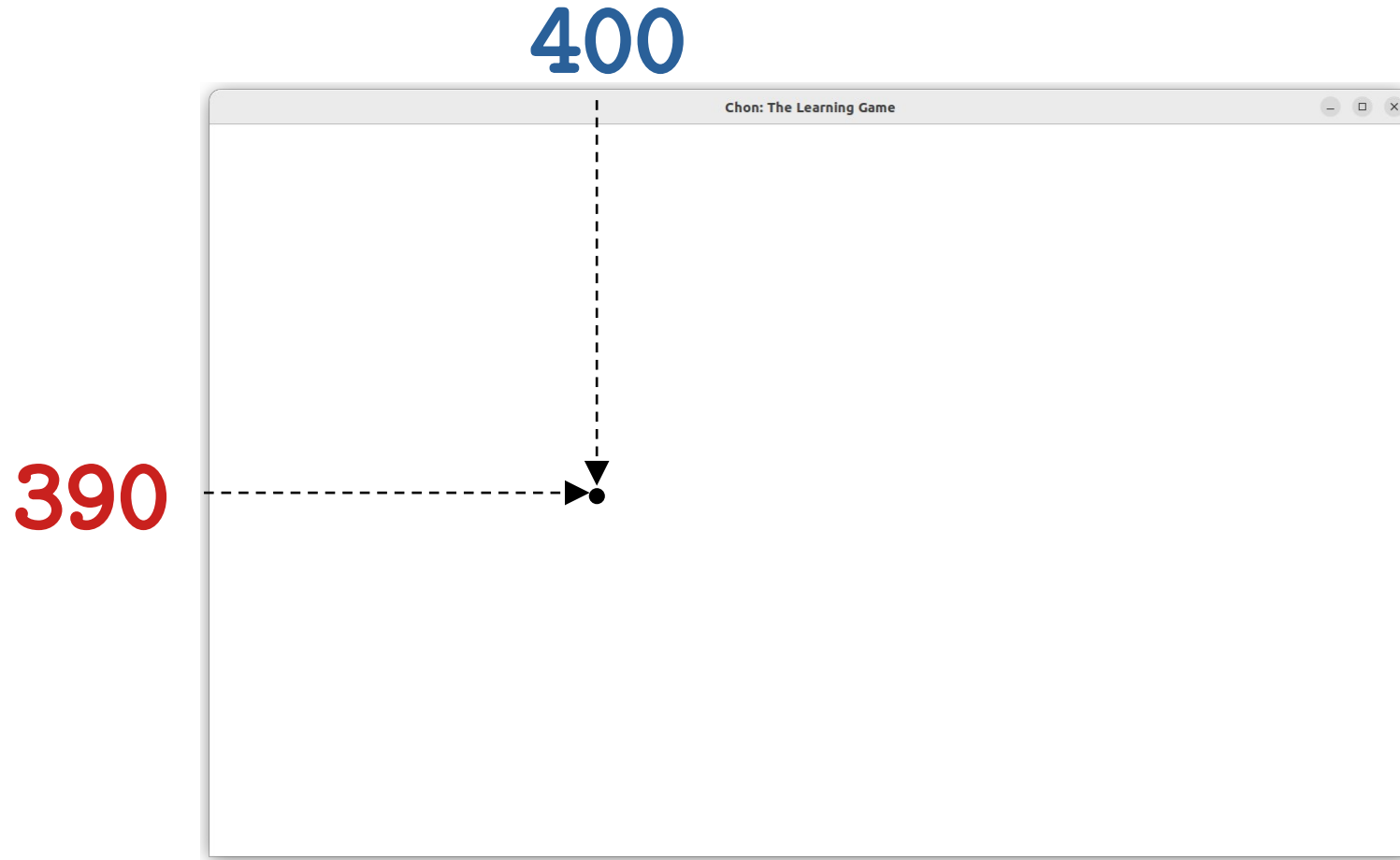
Drawing the Background



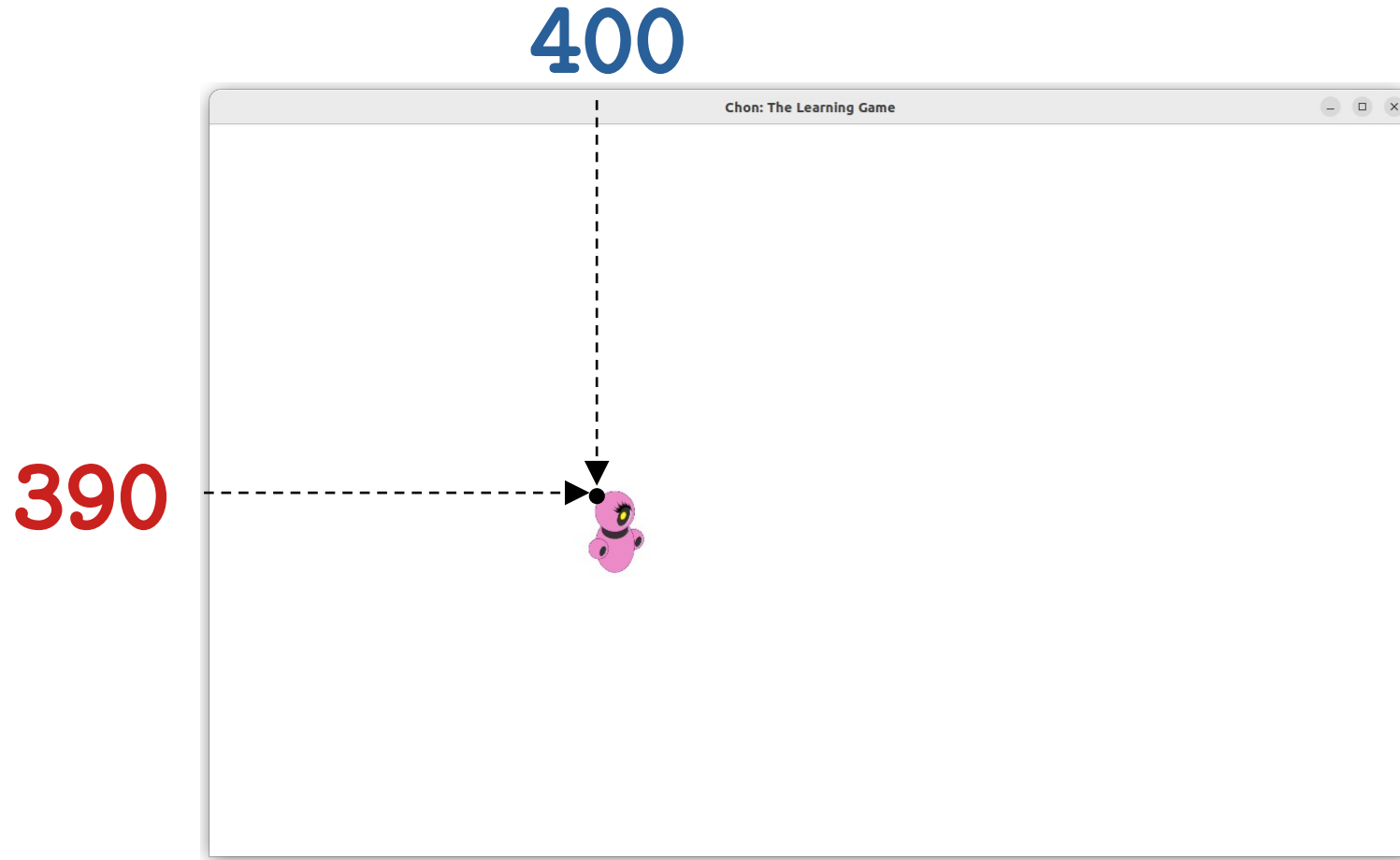
Drawing the Characters



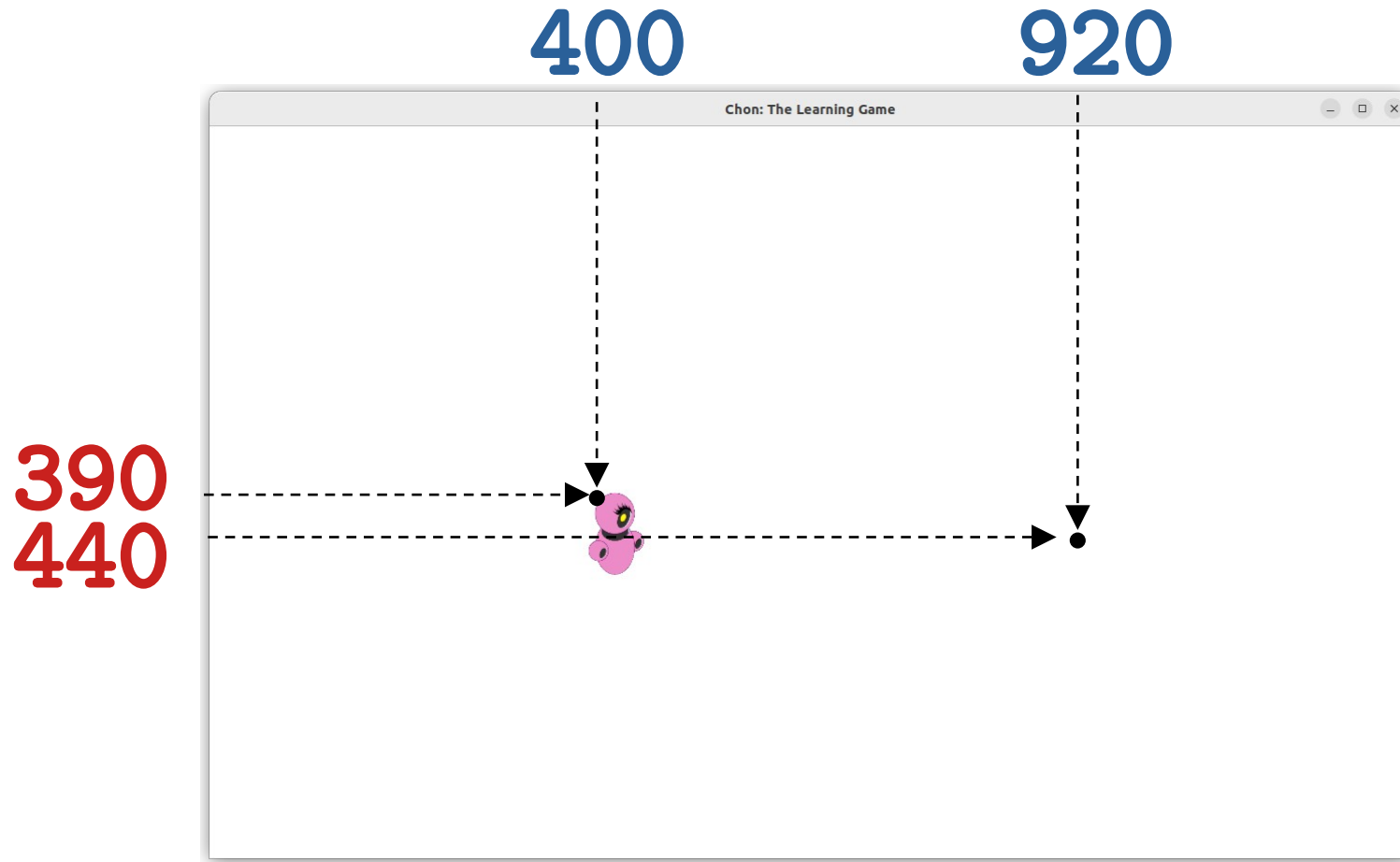
Drawing the Characters



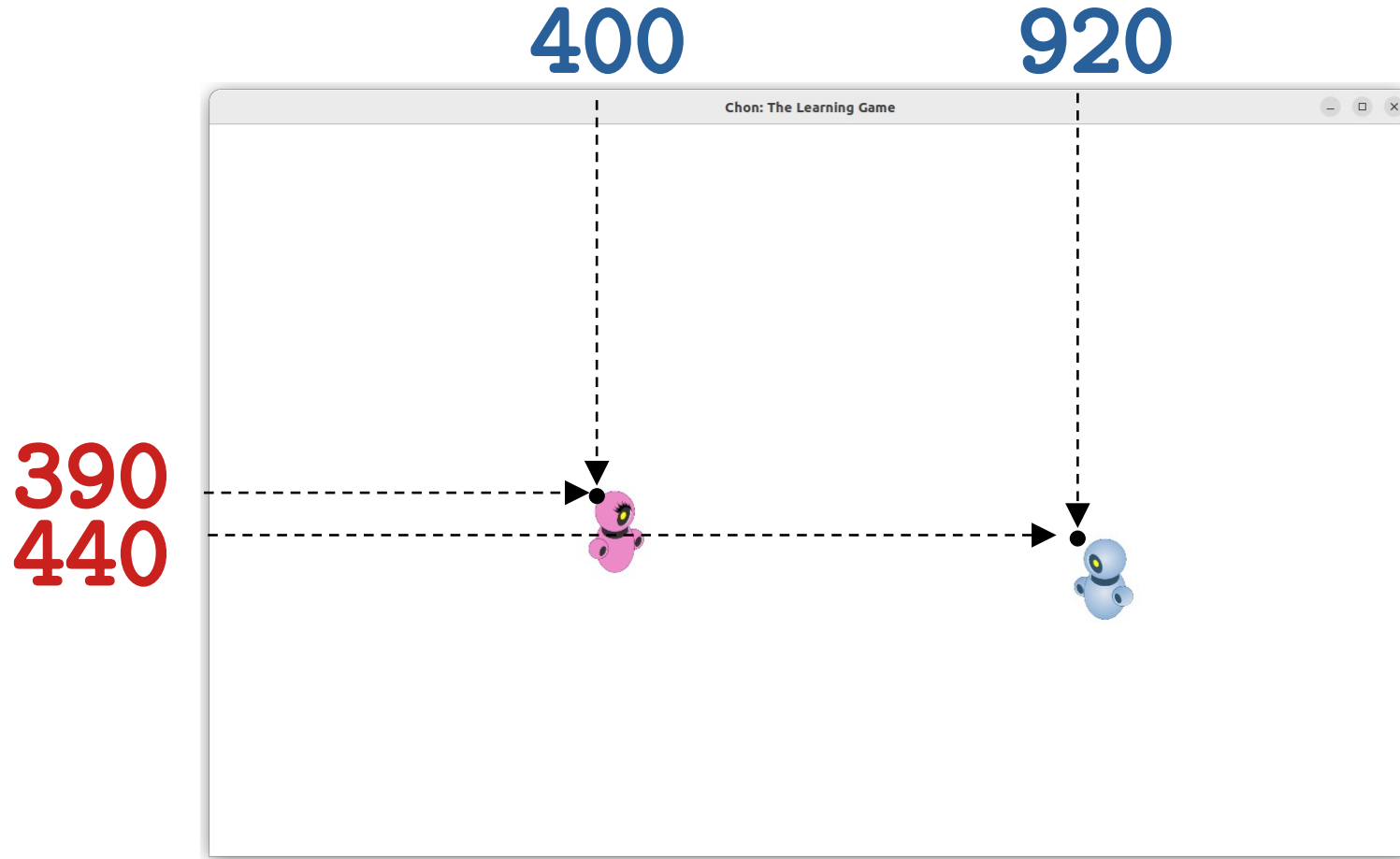
Drawing the Characters



Drawing the Characters



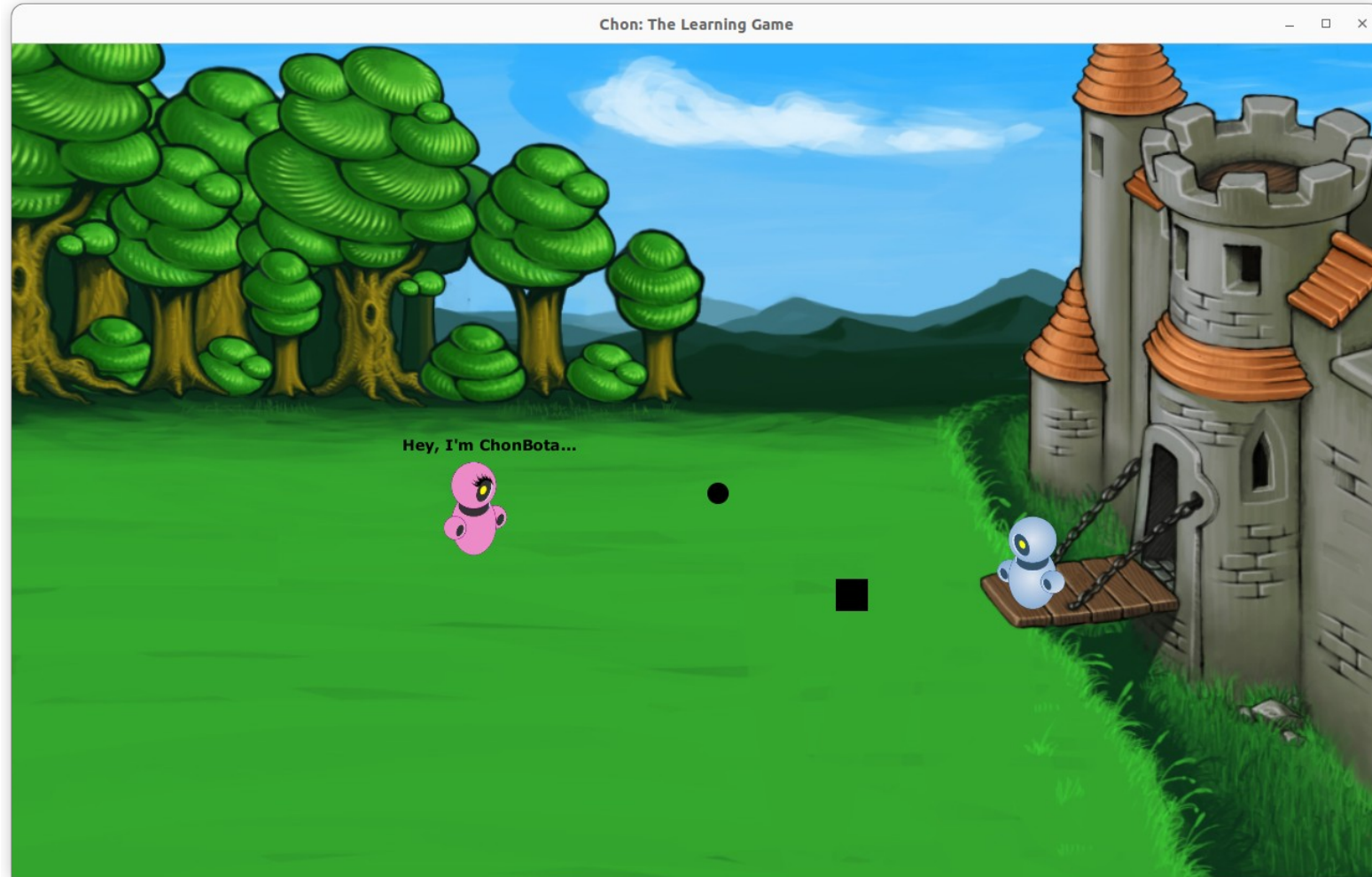
Drawing the Characters



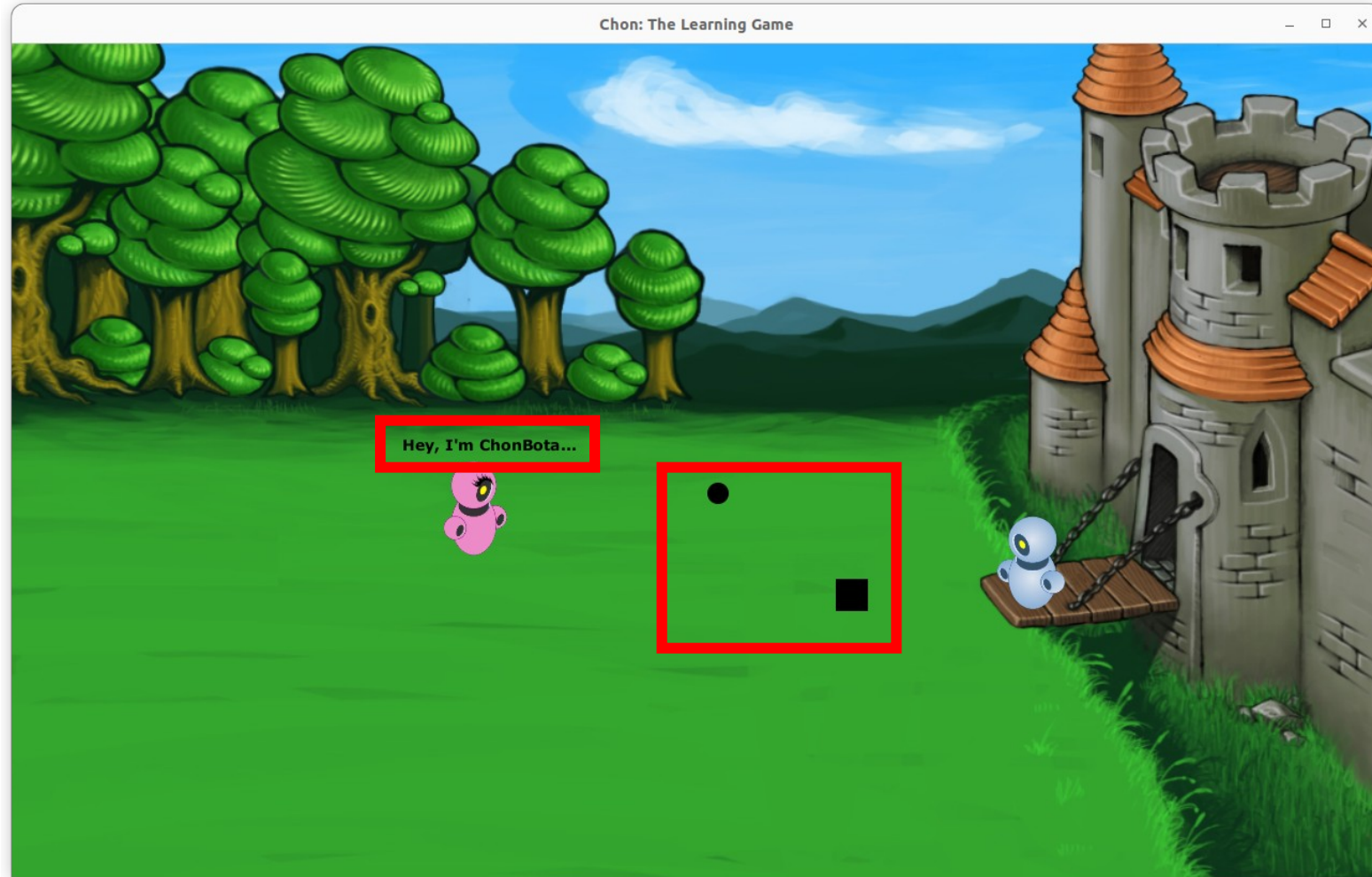
Drawing the Characters



Drawing Other Objects



Drawing Other Objects



THANK YOU!