

Project Description

The Offline Games Collection is a desktop-based gaming platform designed to deliver a variety of classic game experiences without requiring an internet connection. Built using Java and JavaFX for the frontend, the application offers multiple games within a single system. Users can access a main menu to choose from several offline games and enjoy seamless gameplay with interactive visual feedback.

Games included:

- Tic Tac Toe
- Snake Game
- Number Guessing Game
- Memory Puzzle

Dependencies and Technologies Used

- **Frontend:**
JavaFX for controls, FXML, swing, media
SceneBuilder for GUI design
- **Build Tool:**
Maven for dependency management and build automation

Source of Dependencies

Dependencies were sourced from the Maven Central Repository:

- JavaFX and related libraries: Maven Central.
- The pom.xml file was configured in IntelliJ IDEA or NetBeans to manage Java dependencies.

Installation of Dependencies

Frontend (JavaFX)

1. Created a Maven project in IntelliJ IDEA or NetBeans.
2. Configured the pom.xml file with the listed dependencies.
3. Run 'mvn clean install' to download and install dependencies.
4. Used the JavaFX Maven plugin to run the application with 'mvn javafx:run' or run manually from the IDE.

How Users Can Use the Application

1. **Launch the Application:** Open the application to access the homepage displaying a welcome message.
2. **Select a Game:** Choose from available games (Tic Tac Toe, Snake, Number Guessing, Memory Puzzle).
3. **Play the Game:** Each game has unique controls and instructions displayed on the screen. Complete the game objectives and view your results or scores.
4. **Return to Menu:** After finishing a game, users can return to the main menu to select another game or exit.

How Users Can Install the Application

Prerequisites

- Java JDK 21
- Maven
- IntelliJ IDEA or NetBeans for development
- JavaFX SDK and SceneBuilder

Installation Steps

1. **Clone the Repository:**
2. **Download or clone the project files.**
3. **Frontend Setup:**
 - Open the project in IntelliJ IDEA or NetBeans.
 - Ensure pom.xml is configured as provided.
 - Run 'mvn clean install' to install JavaFX dependencies.
 - Execute 'mvn javafx:run' to start the frontend.
4. **Run the Application:**
 - Launch the application through the IDE or the generated .jar file.

Purpose of the Project

The Offline Games Collection serves as a recreational tool, enabling users to enjoy classic games without requiring an internet connection. It provides a fun, lightweight platform for entertainment while demonstrating skills in Java, GUI design, and object-oriented programming.

Target Audience

- **Students:** To relax and entertain between study sessions.
- **Programmers:** As a practical demonstration of JavaFX-based application development.
- **Casual Gamers:** To enjoy classic offline games on desktop systems.

How to Use the Features

- **Main Menu:**
 - Navigate through the main menu to select a game.
 - Start the selected game and follow on-screen instructions.
- **Gameplay:**
 - Play each game based on its rules and objectives.
 - Return to the main menu after completion.

Motivation for Building the Project

The project was motivated by the desire to consolidate classic offline games into one easy-to-use platform, offering users entertainment without internet dependency. The aim was also to enhance skills in object-oriented programming, JavaFX development, and desktop application design through practical implementation.