

Connect 4 - User Guide

Installation Guide

Downloading and Installing the Game

To install Connect 4, simply download the ZIP file named “U4A3_FinalProject” and later extract the files in a folder that can clearly be identified.

Installing Java and Compiler

To run Connect 4 and all of its implemented features, it requires the Java SE Development Kit and the latest version of NetBeans (currently 8.2). Both can be downloaded and installed here (please select the operating system version that applies to your computer):

<http://www.oracle.com/technetwork/java/javase/downloads/jdk-netbeans-jsp-142931.html>

If experiencing issues, please refer to the installation instructions outlined here:

<http://www.oracle.com/technetwork/java/javase/downloads/install-jdk6-22nb691-177131.html>

Opening the Project

After successfully extracting the program files and installing JDK with NetBeans, it is now time to import the project. Click the 3rd button from the left, which is called “Open Projects.”

Navigate to the location where the extracted program files are and double click on “U4A3_FinalProject” to import the project.

After importing the project, double click on the coffee cup icon to open up the project structure underneath the “Projects” tab. Navigate through the whole project structure until “U4A3_Connect4.java” is visible.

Once you can identify “U4A3_Connect4.java,” right click it and press Run File. Now, a new window should open, that will be the Connect 4 Game!

Description of the Program

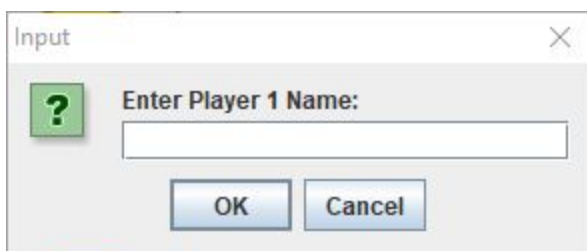
Connect 4, the classic competitive board game is now available online through the Digitized Edition 2018. The purpose of this program is to make the game of Connect 4 available anywhere, anytime with an online edition. It is meant for enjoyment and entertainment purposes. In this game, you will be able to access the full functionalities of the board game version of Connect 4, including dropping, winning, losing, and more. To win a game, match 4 in a row, either vertically, horizontally, or diagonally. Play and compete against your friends as high scores will

be stored offline and you can see past high scores even after you quit a session. Personalize your game experience by selecting which colour you want to play as. Happy dropping!

Tutorial

Start Screen

As the program starts, this will be the first screen that opens. Here, the user can choose from “Play!”, “Instructions”, “Scoreboard”, “Exit”. “Play!” will start the game, sending the user first input their player 1 name and colour, and player 2 name and colour. “Instructions” opens up a window that explains in detail how to play Connect 4 and its rules. “Scoreboard” sends the user to the scores page, where they are able to see their scores and past scores. “Exit” ends and exits the game.



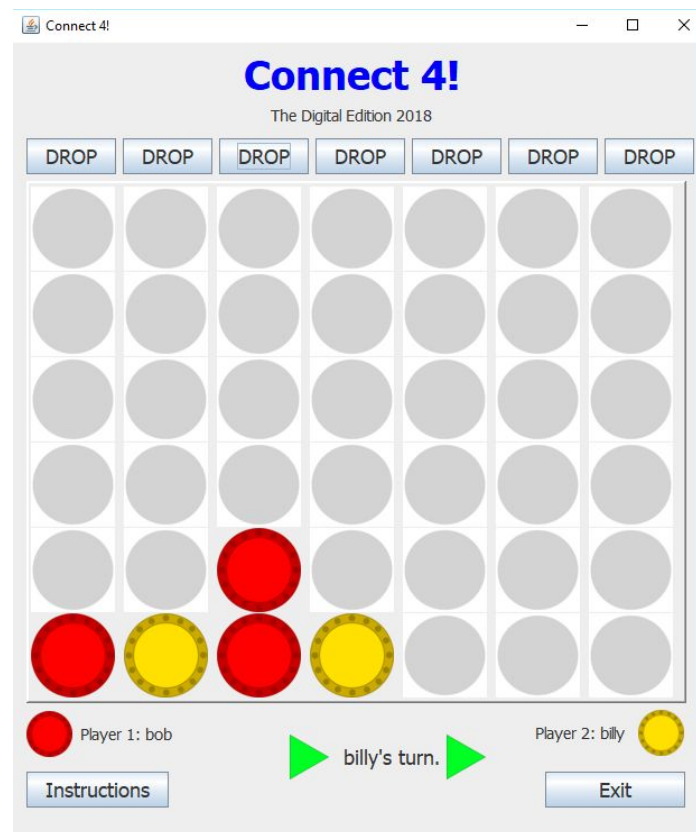
The user will be prompted to answer their player 1 name and colour, as well as player 2 name and colour.

Game Screen

After the user enters the information for the two players, the user will be sent to start the game! A timer has started in the background and it is player 1's turn to go first. In order to drop a chip, the user has to press the “DROP” button above the column that they wish to drop in. If it is full, they are not able to drop. Additionally, the player chip colour and name will be at the bottom, with convenient green arrows to indicate which player's turn it is.

If at any moment, the player thinks that they may need a refresher on the instructions, the player can press instructions, which opens a pop-up instructions window. The player may also exit the game if they are bored or do not wish to play any longer.

Once a “Connect 4” has been achieved, the players will be prompted to the Game Over Screen.

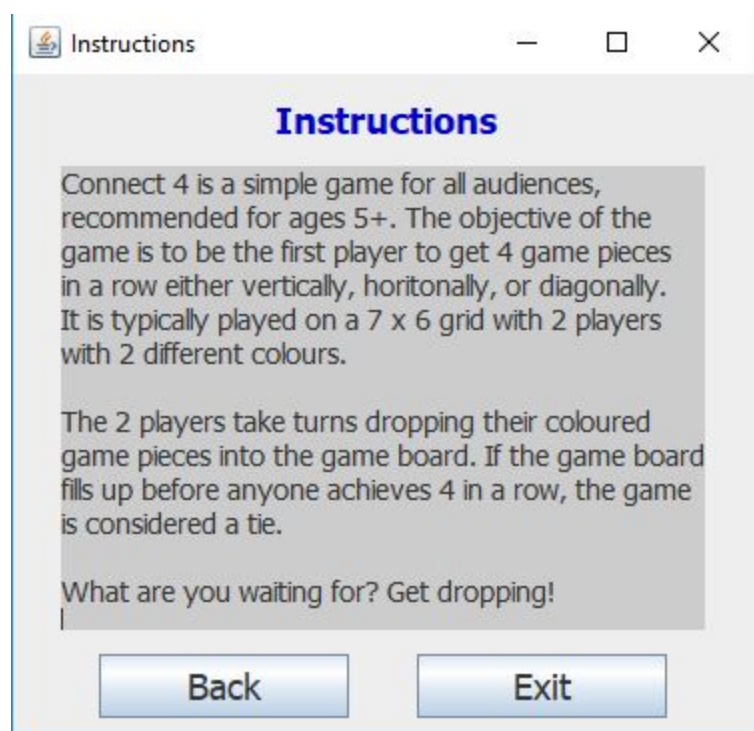


Instructions

This is the instructions screen that the user will be able to access during games as well as before games in order to learn how to play Connect 4.

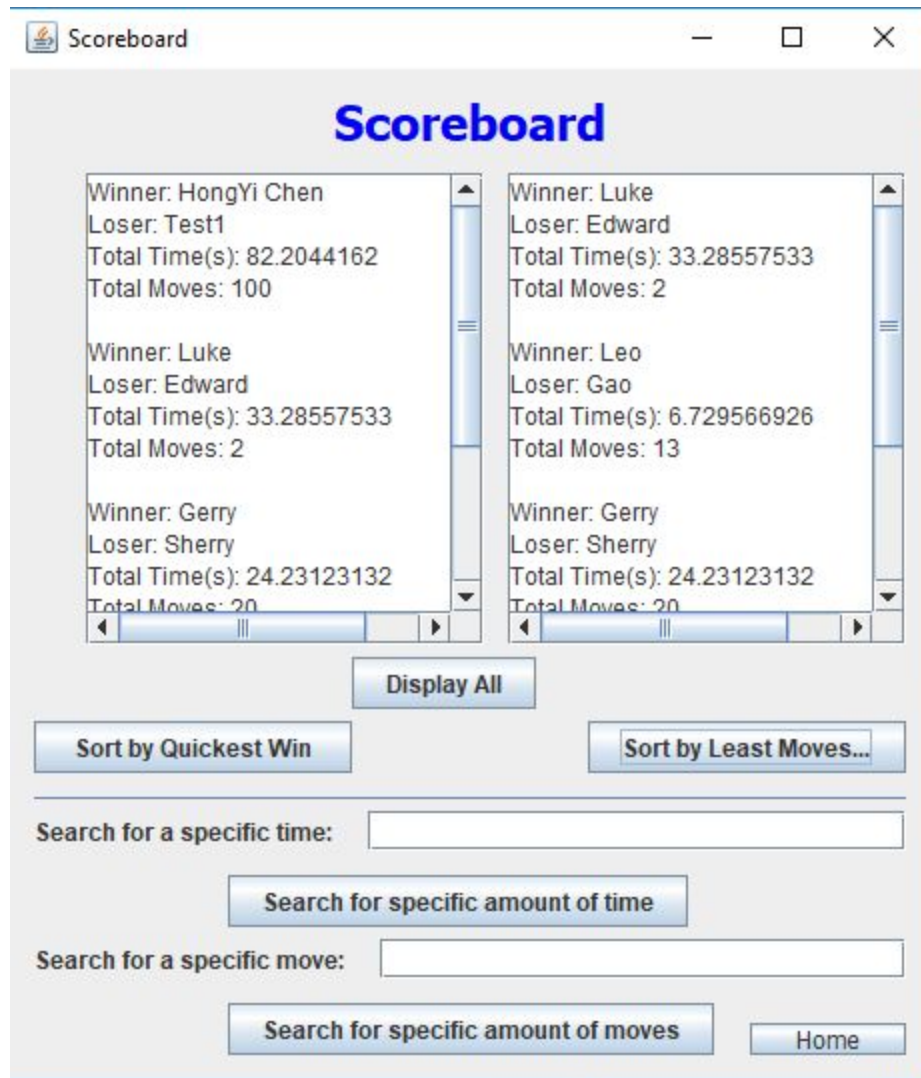
Scoreboard

This is the scoreboard screen that the user may access after a game, or before a game. The user is able to see all the scores from the past by pressing



“Display All.” If the user wishes to sort the scores, it can be sorted in descending order by amount of moves or total game time by pressing “Sort by Least Moves” and/or “Sort by Quickest Game” respectively.

If the user wishes to search for a particular total game time or amount of moves, they are able to do so with the text fields below. Enter the **exact** total game time or amount of moves and press the button below the textfield in order to view it. If the user wishes to navigate back to the start screen, they can with the “Home” button.



Special Features

Special features are as listed below:

- Customizable player name and colour:

- The user will be prompted to input their player name and colour, fully customizable and a wide range of colours to choose from.
- Scoreboard
 - The scoreboard is able to output any of the past games as it saves its game history into a text file called Scoreboard.txt. This allows the user to access any past games, even after the session is ended.
 - Additionally, the scoreboard offers a plethora of sorting and searching abilities to help view past games.
- Instructions
 - Instructions can be accessed before the game and after the game to ensure the user is fully aware of the rules and the user understands how to play Connect 4.
- Player turn tracker
 - The player turn tracker (green arrows) conveniently shows who's turn it is, all the time, just to make sure the players do not forget and accidentally drop for the other player.