

Mancala Board Game

The Java Juggernauts

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Project Overview

The game we chose to implement was Mancala

Mancala is a two-player turn based strategy board game invented in 6,000 BC played with small stones as well as a game board with appropriate game pockets

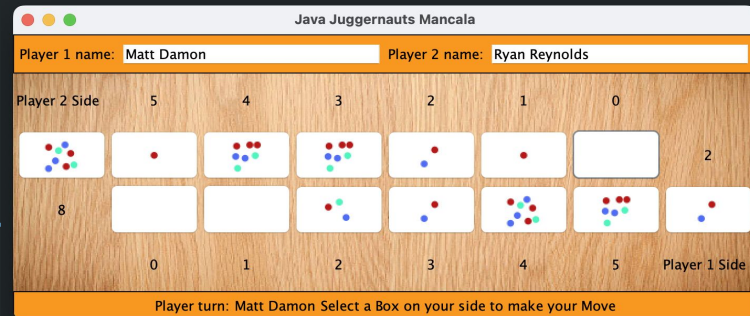
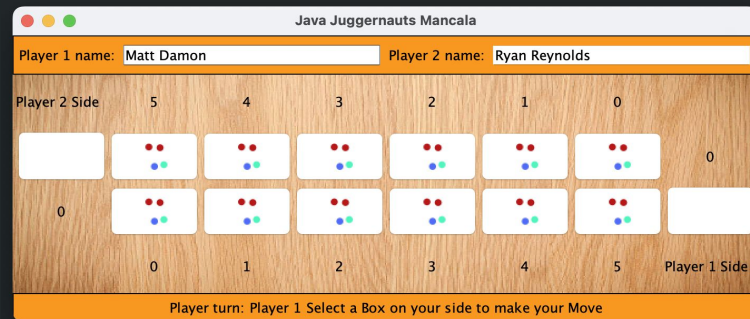
Main Features:

- Two-Player Game with alternating turns
- Track Player Score and Pocket states
 - Perform Capture and Player Turn-Again features



Game Description, Rules, Images

1. The game begins with one player picking up all of the pieces in any one of the pockets on his/her side.
2. Moving counter-clockwise, the player deposits one of the stones in each pocket until the stones run out.
3. If you run into your own Mancala (store), deposit one piece in it. If you run into your opponent's Mancala, skip it and continue moving to the next pocket.
4. If the last piece you drop is in your own Mancala, you take another turn.
5. If the last piece you drop is in an empty pocket on your side, you capture any pieces in the pocket directly opposite.
6. Always place all captured pieces in your Mancala (store).
7. The game ends when all six pockets on one side of the Mancala board are empty.
8. The player who still has pieces on his/her side of the board when the game ends captures all of those pieces.
9. Count all the pieces in each Mancala. The winner is the player with the most pieces.



Project Requirements

Functional Requirements:

Players need to move stones across the board.

Players need to score points.

The game needs to end.

Non-Functional Requirements:

Pockets show how many stones are in them with images, not just numbers.

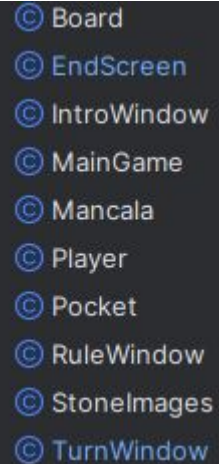
Players have names.

Multiple separate screens.



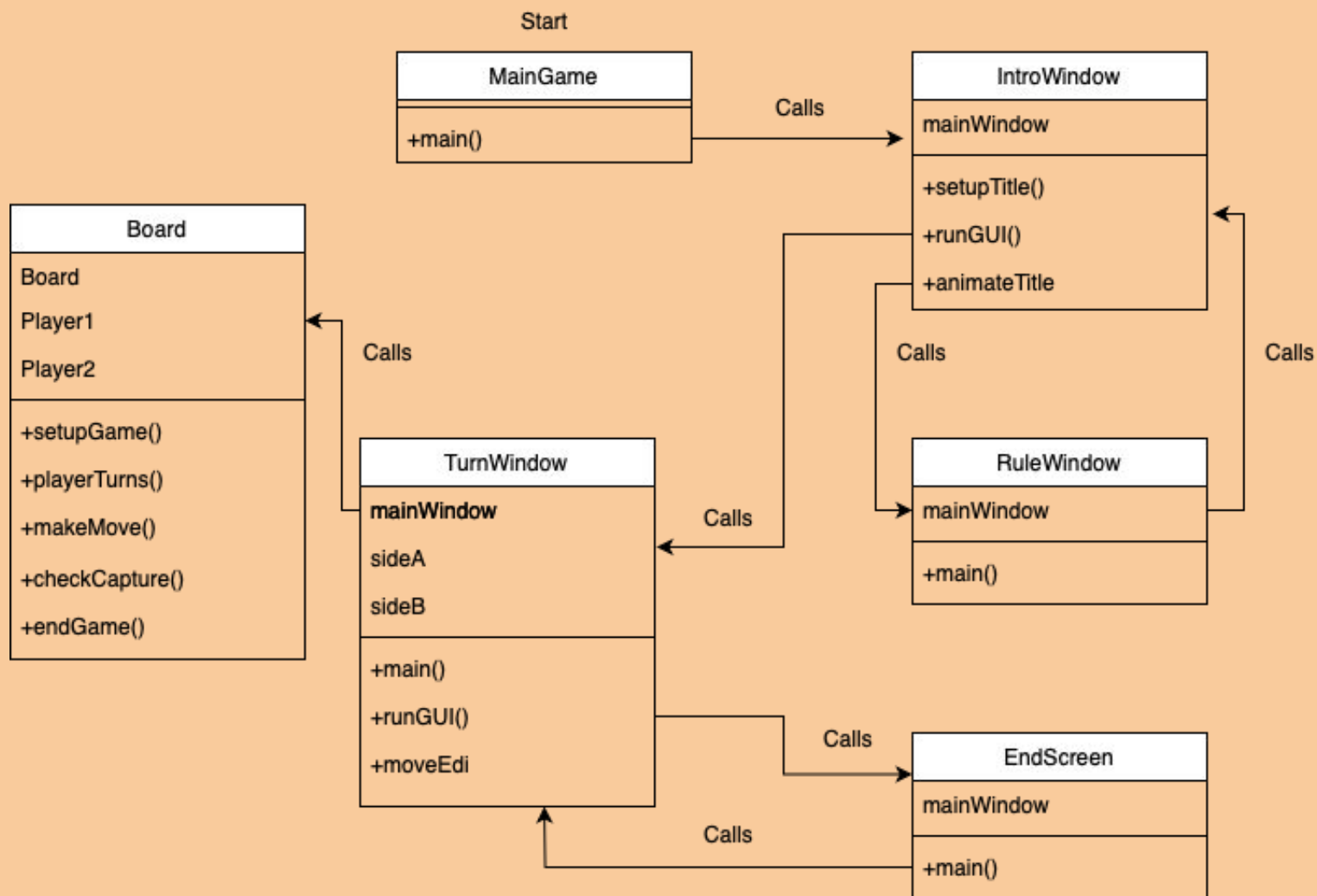
Project Solution Approach

- 11 Classes, some used more than others
- Understanding mancala rules and mechanics
- Object oriented programming
 - Board, pocket, mancala, player
- Jswing
 - Make a JFrame for each window needed
 - Each JFrame has its own class
 - Each JFrame can lead to another frame
- Game/ui features
 - Color themes, stone photos



- © Board
- © EndScreen
- © IntroWindow
- © MainGame
- © Mancala
- © Player
- © Pocket
- © RuleWindow
- © StoneImages
- © TurnWindow





Team Collaboration

Main Communication Tool: iPhone Message Group Chat

Github Issues: Went almost perfect... One merge conflict occurred but was quickly resolved. Branching was extremely efficient.

Lessons Learned: Weekly meetings are important. Collaboration and Communication is vital; everyone needs to express their ideas and plans so we all stay on the same page.

Coding Strategy: During in-person meetings, we would group hack if help was needed. Other than that, individual work was assigned to make the coding process go faster.



Testing, Validation, and Acceptance Plan

We used a combination of unit tests as well as preset user tests to make sure our game functioned the way we wanted it to.

We first made our game just in the terminal, making it easier to test and fix.

Our game will be deliverable after some more thorough play testing as well as more in-depth unit tests.



✓ Tests passed: 15 of 15 tests – 23 ms

Live Demo Time



Looking Forward

-We have a functionally and visually complete starting canvas, on which we can grow into a new and better version of Mancala.

-MANCALA 2?!?!?!?

-MANCALA BATTLE PASS?!?!?!?



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Java Juggernauts Mancala

Player 1 name:

Player 2 name:

Player 2 Side

MANCALA VERSION 1.5.6 PATCH NOTES



0

0

1

2

3

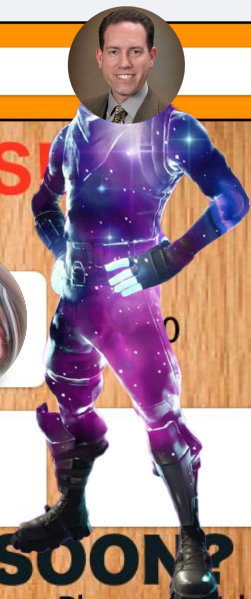
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Player 1 Side

SKINS COMING SOON?

Player turn: Player 1 Select a Box on your side to make your Move



NEW BATTLEPASS LEAK?

Thank You

Questions?