

Software Development Report
CSC 221: Programming 2: Fall 2024

Micah Yoder

Inheritance Lab: New Game

Problem Summary:

Create a game using inheritance where there are some shared classes in addition to some super and sub classes. The game I am doing will be Connect Four

Implementation Requirement:

- main method created in GameDriver
- work in groups of 2 or 3
- each person adds one game
- use superclasses
- use subclasses

System Design:

- GameDriver used to run code
- Game is used primarily
- Board is made
- Moves can be made
- Winner is found

Execution Instructions:

- Run the code through GameDriver
- Follow the instructions given to play the game

Testing Report

Name	Description	Input	Expected Output	Actual Output	Pass?
Test1	red win horizontal	correct moves till red wins horizontally	red wins	red wins	yes
Test2	black win horizontal	correct moves till black wins horizontally	black wins	black wins	yes
Test3	red win vertical	correct moves till red wins vertically	red wins	red wins	yes
Test4	black wins vertical	correct moves till black wins vertically	black wins	black wins	yes

Test5	red wins forwards diagonal	correct moves till red wins diagonally	red wins	red wins	yes
Test6	black wins forwards diagonal	correct moves till black wins diagonally	black wins	black wins	yes
Test7	red with backward diagonal	correct moves till red wins diagonally	red wins	red wins	yes
Test8	black wins backwards diagonal	correct moves till black wins diagonally	black wins	black wins	yes
Test9	Invalid move	-1 and 8	Illegal move Illegal move	Illegal move Illegal move	yes
Test10	Full board	move moves so no one wins and board gets full	there is no winner	there is no winner	yes
Error1	Character input at start	'y'	ERROR	ERROR	yes
Error2	Character for move	'row'	ERROR	ERROR	yes

Estimated Time Required vs. Actual

5 hours including the SDR (estimated)

6 hours total on code, 30 minutes on SDR

Outside Resources used:

none

Security Report:

No security issues

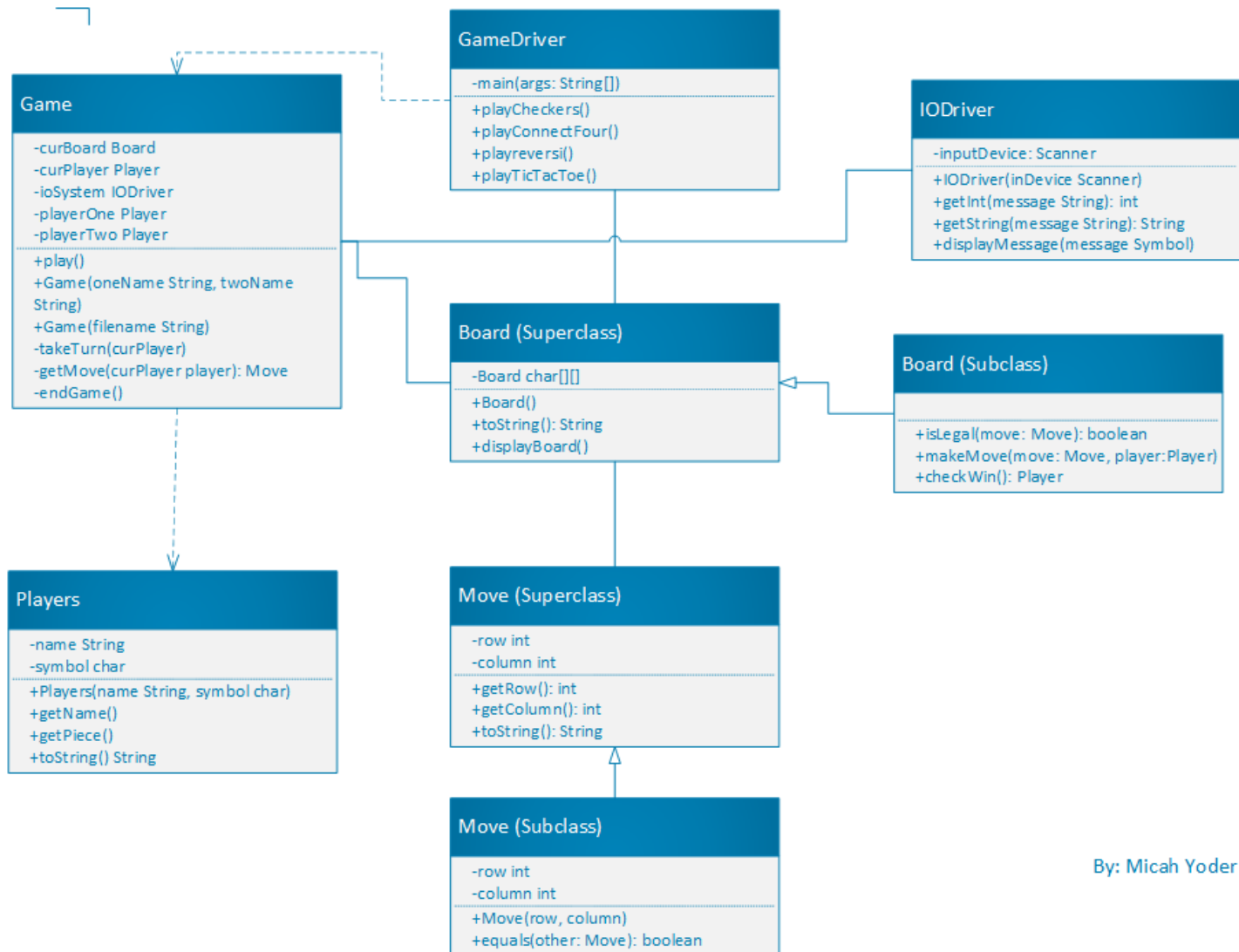
Ethical: no ethical uses come to mind for a board game

Unethical: no unethical uses come to mind for a board game

Future Improvements: Incorporate GUI

Lessons Learned: Learn how to use inheritance, learn how to work more in groups

Improvements of Work: Put full banner comments on all of my code



By: Micah Yoder