# IFN 563 Object Oriented Design

## Assessment 2

## Final Design and Implementation

## Submitted by

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## Table of Contents

## Overview…………………………………………………………………………………… 3

## Principles and patterns…………………………………….…………………………

## Class Diagram………………………………………………….…………………………

## Sequence Diagram…………………………………………...…………………………

## Object diagram………………………………………………...…………………………

## Program Execution Guide………………………………….…………………………

## Declaration……………………………………………………...…………………………

## Overview

The final design streamlines implementation and addresses the challenges of developing a console-based multi-board game by incorporating feedback from the preliminary design. The program is now organized into distinct classes that represent key game elements, such as players, boards, game states, and turn management. This structure also integrates features like saving and loading game states, managing moves through stacks, and displaying results on a leader-board.

In the preliminary design, a single Board class was used to represent any type of board game, with a Rule class checking the validity of moves. However, this approach was overly abstract and difficult to implement, as each game has unique characteristics requiring distinct classes. To address this, the new design includes child classes under the Board class, each tailored to a specific game.

Additionally, the new design introduces a separate GameState class to manage the functionality of pausing and resuming games. This class includes methods for saving the game state to an external file and resuming from where the game left off .