

Checkers Game Data Model Concept

CS 4330

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1. First I have a menu class.
 - a. It acts as a controller of the game.
 - b. It will have function for newGame, loadGame, saveGame functions.
 - c. It will have some private members like mode of the game (human vs AI, human vs human, AI vs AI).
2. The main class of game is called checkers class.
 - a. It has function like giveUp, which is to reset the game. Move function, and rule function to check if the move is legal.
 - b. It will have some private members like player1, player2, pieces, col, row, winner.
3. The hierarchy of the players are going to be implemented by inheritance. Player class act as parent, a computer class and a human class extend from player.
 - a. Player class is going to be an abstract class, because we will only need the player to be human/AI
 - b. Human class will have functions communicate to the UI. Both sending and receiving data.
 - c. Computer class only need to send date to the UI. AI can be learn using backtracking.

4. The entire game is going to be implemented in a state machine (using enum). Start state, in game state, and end state. Transition from start to in game is by getting the information from UI, which then controller will transit it into game state. In the game state, UI will continue to communicate with controller, to change model until the winner has found.
5. MVC (model view controller) is needed, and Controller should not be the UI.