Quincy Woodall

Abdul Wasay Khan

Akan260@uic.edu

Qwooda2@uic.edu

Documentation

The only thing that was kept from program 4 to program 5 was how the client and server connected and updateClientsOnline, which inform the server when a client is connected to the server. Other than that, everything in the server file was changes so that we could build the Tic Tac Toe game. For one there is no player 2 there's only one client, and that client is the only player. The player is playing against the computer. We created function like copyState, and printBestmoves. These function help display the state of the game. The min/max algorithm for selecting the optimal move for a computer opponent. Method findMoves will take a list of all moves by the X opponent, follow each move to all its possible conclusions, and give it a value of 10 if it can result in a win, 0 if it cannot win but can result in a tie and -10 if it will result in a loss recursive function that works with Max. Takes a state node, creates a list of possible moves, evaluates the min/max value of those moves. If not a win or a tie, sends it to Max. After all nodes are evaluated, if there is a -10 min/max value in any of the nodes, returns -10, if no -10 returns 0, else returns 10 (means all moves are losing moves). The client gui files had to add the computer moves for the computer to win and every moves to get a tie in the game, and the display of the game had to be changed since it's a board game.