

# Assignment 5 Augmented Design Decisions

## Team Aqua

### 1. Game Modes

We made the design decision to have the AI games play offline. This left our multiplayer portion to require a server authentication as it can only be played with players running a second client.

### 2. Save Data

Due to having difficulty running our DB on the school's system we had to redesign our system to save game data of the current game in the SQL DB found on the server's machine.

This data is retrieved and removed from the SQL tables only when the player requests a "load saved game". If the player has no game to load, the player is added to a new existing game.

## Assignment 5 Potential Issues

### 1. Synchronization Issues

Right now, our system may desynchronize during certain edge cases during game matching process.

### 2. Contracts

We found it difficult to add server contracts as the game design and server synchronization were a bit inflexible. If we had more time we would have created a more robust server implementation in which contracts would be easier to implement and regulate.

### 3. Server Crashing

Currently we have not implemented a timeout function for our clients. As such, if the server is to disconnect/crash our clients are never alerted and they will be stuck indefinitely.