**Game: Egg Easter Picking**

**Description of the game:**

*Game Description:*

This is a multiplayer game, and the game's board is 7x7. The game's objective is to collect as many points as possible to win. During the game, each player needs to click (lock) the egg and hold it for a short time, then release it to hatch it. To occupy the egg, the player must be the first one clicks on the egg. Otherwise, another player can take it over. For each egg that players acquire, they will receive one point. At the end of the game, the player with the most points will be the winner. The tie is also possible.

*Game Mechanism:*

The server does not involve in executing the game. It controls and updates the stage of the game and permits any player's action by sending a message to the client. The server will handle the message based on the list of the pre-defined messaging scheme.

The client plays the role of the executor; it renders, updates, and conducts the game via the instruction from the server. When the player clicks on the egg (players must click within the range of the image), the client catches the coordinate and send the request to the server. The server will check the coordinates. If the egg is available (no one locks/acquires the egg), then the server will approve players to lock and hold the egg.

*Application-layer messaging scheme:*

“READY” – wait for all players connect to server

“NUM” – return number of players

“EGG” – request for updating (a dictionary of) eggs’ coordinate

“MOUSE” – send coordinate of the egg

“LOCKED” – request to lock the egg

“SCORES” – updating the current player’s score

“INC\_SCORE” – request to increase the player’s score

“V” – sending pair of coordinates (after “LOCKED”)

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**Source Code Link:**

https://github.com/Adamatbi/371\_Final\_Assignment