**Game: Egg Easter Picking**

**Description of the game:**

*Game Description:*

This is the multi-player game, and the board of the game is 7x7. The objective of the game is collecting as many points as possible to win. During the game, each player needs to click (lock) the egg and hold for a short amount of time then release to hatch the egg. To occupy the egg, the player must be the first one clicks on the egg, otherwise another player can take over it. For each egg that players acquire, they will receive one point. At the end of the game, the player with most points will be the winner. 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 give permit any action of player by sending message to the client. The server will handle the message-based the list of pre-defined messaging scheme.

The client plays the role of the executor, it renders, update and conduct the game via the instruction from the server. When player click on the egg (players must click within the range of the image), the client catches the coordinate and send the request to server. The server will check the coordinate, if the egg is available (no one lock/acquire the egg), then 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