

To: Instructors of CS 4500

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Subject: Fish Game

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For the Fish Game, we would like to define milestones for each part of the development process. These steps are listed in detail below.

1. Build and draw the game board for Fish
 - a. Render a N by M game board made up of hexagonal tiles
2. Initialize start of game
 - a. Fish are randomly distributed among the hexagonal tiles
 - b. Players are able to join, and are assigned a color and penguins to control
 - c. The fish are rendered on the hexagonal tiles
3. Player interaction
 - a. Players can move their penguins on the board, they are only able to move in one direction, across bordering hexagonal tiles
 - b. The referee tells players in what order to take turns, and decides whose turn it is at any given time
4. Apply the game rules
 - a. Players are able to pickup fish and add them to their total number of fish as they move around the game board
 - b. Hexagonal tiles become inactive, and therefore no player can use them to move across the board once all fish have been collected
5. Determine if the game has ended
 - a. Introduce a method to know if none of the players can make another move
 - b. Determine the winner of the game, and render who the winner is. The winner of the Fish game is whichever player has collected the most Fish when the game has ended.
6. Build player interface
 - a. Allows users to signup for tournaments, communicates to players whose turn it is, and communicates who wins and loses the game
 - b. Interacts with external payment system to process payments for users

At each step, each of these prototypes are able to be demoed to early investors. Each iteration of the game makes improvements on rendering, and playability.