## Memorandum

DATE: September 28th, 2020

TO: CEOs of XYZ

FROM: Andrew Nedea, Jason Kemly SUBJECT: Fish Project Milestones

The completion of this project can be broken down into several distinct milestones that document our progress as we develop this system.

## Milestone 1 - Communication between server and client

This milestone is meant to demonstrate successful communication and user signup. The steps involved in completing this milestone are as follows:

- Determine a networking protocol so that the client can communicate with the airtower
- Develop the airtower component of the system, which should be able to accept incoming client connections and send messages to connected clients
- Begin developing the referee component and the game model so that they can facilitate user signups based on commands received by the airtower
- Create a simple program that allows the user to submit a signup request and query the airtower for the current list of players

To demo this milestone, we will simply use the user input program described in the last step.

## Milestone 2 - Partial game logic

This milestone is meant to demonstrate the successful assignment of player colors, creation of the board layout and the initial placement of penguins.

- Update the referee component to include creating board layouts, assigning colors to players, and prompting players to place their penguins
- Update the model to store player moves, board layout, and initial penguin positions
- Create a simple GUI to visually demonstrate the board, player assignments, and character placements

To demo this milestone, we will merely leverage the GUI described in the last step.

## Milestone 3 - Finalize game logic

This milestone is meant to demonstrate the final game logic and implementation, which involves the game model, referee, and airtower components. The steps involved in completing this milestone are as follows:

- Update the referee so that it can accept user moves and enforce rules
- Update the game model so that it can store player moves and change the board state
- Update the airtower so that gameplay information can be relayed back to the clients
- Update the GUI so that the board can be updated based on player moves

To demo this milestone, we will simply leverage the GUI and command line input.