Progress Report

Since submitting my proposal I've added a few new elements and features to my program. For one thing, I created many new classes in order to keep my code more organized and to allow for future additions to be made easily. For example, I added new tile classes that have different properties depending on if they're water, land or a port. Each port has randomly generated names and images. Also, I added a new class for buttons that I will most likely use later on for the interface of the game and its different states. Most of the work I did recently has been to restructure the code so that I can easily add more features without getting lost in the script.js file. Some of the challenges I faced so far were trying to reroute the paths of the ships so that they don't pass through land or ports when they move. Also, I'm struggling to animate a cannon ball moving in the direction of where the user clicks when they launch it. I've been trying to figure a way to calculate a vector that could move in that direction. However, since I need to calculate it only once, I'm struggling to figure out where to place it, since the cannon shooting function is technically within the draw function of the main script file. A lot of issues I encounter usually have to do with this; that I want to run a function once but it has to pass through the draw function so its run by the program each frame instead of only once.

There are a lot of things I'd like to improve moving forward. I need to figure out a way that makes the boats avoid land as they move across the board. I'm assuming this is a fairly complicated thing to do so I've been pushing it off for now. I would need to look into the way they move from tile to tile and whether I can force them to move in a different direction if the tile is a port or land tile. Also, I'd like to add a cannon launching animation and firing cannon properties and a way to make the cannons interact with the boats if they get hit. In terms of the ports, I'd like to add options like "repair ship" for the user to regain lives if they decide to wait a couple of turns. Another option in the port is the "reload cannons". I think another large technical challenge that will come up is trying to figure out how I want the computer player to think. What strategy should it have? I'm not too sure yet which approach I'll take, and I might look into researching basic strategy methods I could apply for the computer player. In terms of the design, I still need to change the colour of the ships depending on which team they're on, I'd like the port tile to look better, maybe I could attach it to a land tile to make it look like a dock jutting out.