Design Paradigm Used by Project 1:

After going over the various types of design paradigms available, we arrived at the conclusion that the Project 1 team used a combination of functional and event driven design. Their code consisted of a collection of functions written in JavaScript that were used to manipulate HTML files as well as small data structures such as array representations of the player one and player two boards. They broke down aspects of their game logic into sets of interacting units where each unit has a clearly defined function such as for returning the Ids if the ship placements or for returning the number of ships placed.

We believe their code is also largely event driven because there are various event listener to detect users interactions. The trigger for advancement within the game state is caused by the event of clicking the mouse on a button. Such buttons include each of the tiles on the player one and two board, as well as the various buttons on the start screen. Once an event is triggered their program initiates corresponding actions that allow the game logic to gather information and update the game conditions. This allowed for their program to be highly event driven as their event functions cause a change in state for the button’s classes as well as the game logic. Various event notifications are used such as messages and alerts in response to user interaction. The designed functions and the event triggers are linked via JavaScript’s callback function feature.