

For the design paradigm of project one we believe that it is an Object Oriented Design. The hallmarks of an Object Oriented Design are that the primary components of the program are different objects with their own data and methods. Their program has two primary objects to facilitate the battleship game, the executive object and the board object. Their language of choice is also an object oriented language which naturally leads to this design paradigm.

The executive object is concerned with managing the game state, this task could have been divided into smaller objects to do more granular tasks. With its current implementation this object fulfills its role of game state management by starting the game, managing inputs while the game is running, and checking if the game is completed. Most of the time this object is managing the inputs by producing a menu that will call the corresponding print methods or direct the job to the board objects to print themselves.

The board object is concerned with managing the player boards. In normal game functions there are two boards that hold each player's ships. This object is initialized with the number of ships it needs to hold and it interacts with the user to fill its board. It can check the board's state in a variety of ways with its own methods and print its own board.

The language they wrote this software in is C++. We believe that their object oriented design is a product of their language choice rather than a mindful decision at the start of the project. C++ is an object oriented language and writers naturally build objects oriented designs with it when writing in good practice. There are ways to write everything in one object and use it as a function oriented design but that is not the design path they took. Their code lines up well with an object oriented approach.