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CMPT 220L-204  
2 March 2018



## Battleship

For my project, I will be implementing a Battleship™ game. Battleship is a game for two players where each player sets up their own grid of battleships and tries to guess where their opponents battleships are. Each player has five battleships to place of lengths ranging from two to five units long. After each player sets up their board, the players take turns guessing a coordinate to fire a missile at. If a missile hits part of the opponents ship, then the opponent would tell the other player that a ship has been hit. If a missile misses, then the opponent would inform the other player of a miss. If a missile would completely destroy a ship, then the opponent would say the the other player has sunk one of their ships. The game is ended when a player sinks all of their opponents battleships and that player is declared the winner.

For my implementation of Battleship™, I will use a server to facilitate a connection between two clients. After the clients are connected, they will set up their boards and then take turns firing missiles at each other. There is another game mode for Battleship™ called Salvo where each player can fire a volley of missiles at each other and are still only informed of a hit, miss, or if a ship has been sunk. If I have time I will also implement this version of the game and I will be adding my own features as I think of them. I will also try to implement a singleplayer version of the game where it is the player versus a computer if I have extra time.

I will be using the JavaFX framework to implement my client application and standard Java for the server application. For both the client and the server, I will be using the JUnit testing framework and the Google Guava utility library.