# Goals

## Core (Required)

* Server
  + Start-up socket to listen for clients
  + Perform basic game logic (i.e. ability to play the game)
  + Broadcast turns to all clients
  + Inform client when it is there turn
  + Determine victory state
* Client
  + Connect to server
  + Place ships in starting positions
  + Take turn

## Secondary (To be added after Core has been completed)

* Set player name
* Safely handle player disconnects

## Extensible (Beneficial but not required)

* Chat
* Drag and drop interface for positioning ships
* Filters that can be applied to the board (e.g. only show where player 3’s ships were hit)
* Configurable colours to represent players/misses/etc

# Game Rules

* Game plays like current games of battleship
* Played on 10x10 grid (can be changed)
* Ship layout (can be changed):
  + 5 space ship x1
  + 4 space ship x1
  + 3 space ship x2
  + 2 space ship x1
* 2-4 players (on 10x10 grid, could be increased if the grid is larger)

# Discussions

* Should the board be passed to the client? Or should we only send the moves and it is up to the client to display the board?
  + If we pass the board:
    - Higher cost as there is more data to send
    - May allow cheating
    - Coding client side code will possibly be easier (otherwise it will need to be gradually building up its own board)