CS 3110 Project Milestone 1

November 12, 2015

Administrative

Team Members:

Daniel Etter   (`dje67`)
Ian Hoffman   (`ijh6`)
Rob Barrett   (`rpb83`)

Meetings:

Tuesdays   3:00-4:30pm
Thursdays   3:00-4:30pm
Weekends   As Needed

System Description

System Proposal

We intend to build an implementation of Battleship, including a GUI.
Feature list:

- Local Multiplayer

- AI with multiple levels of difficulty

- GUI

- Standard 10 x 10 Battleship Board

Narrative Description

The game being designed will be played between a player and the computer or another player. Each side will have access to their grid and their guesses about an opponents grid. Each grid is made up of a 10x10 array, positions on the grid are indicated by a letter A-L, and a number 1-10. Each player gets 5 ships to place: an Aircraft Carrier of size 5 (5 x 1), a Battleship of size 4 (4 x 1), a Submarine of size 3 (3 x 1), A Destroyer of size 3 (3 x 1), and a Patrol boat of size 2 (2 x 1). These are placed across the board, and must be completely contained by the 10x10 grid with no overlaps between ships. The game is played by each player guessing about the location of their opponents ships with a (letter, number) pair. If they miss, they

will be notified visually and textually. If they hit, they will be notified the same way, but with a different color. Taking out a ship completely results in a notification of the type of ship eliminated. When one player has all their ships sunk, they are the loser! There will be a GUI for the player showing their board and their guesses, allowing for easy placement of ships at the beginning of the game, and smooth, straightforward play.
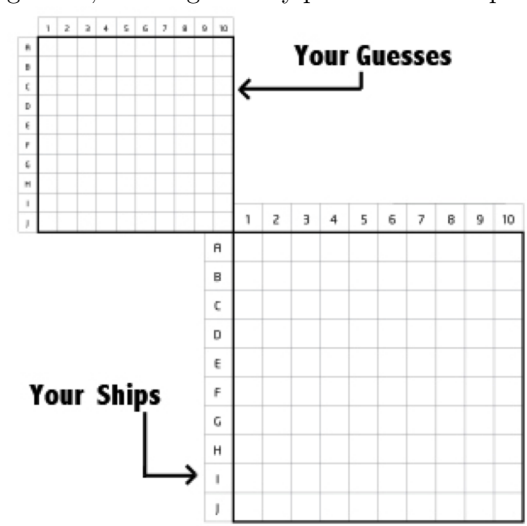
Architecture

System Design

Module Design

Data

External Dependencies

Testing Plan