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May 2nd, 2018

Computer Science

Project 2 Final Write Up

Although I've been struggling with this class, I enjoyed working on the code for this project. Originally starting out as a sort of RPG game, I decided to scrap that, finding it difficult, instead writing up a clone of one of my favorite board games, Battleship. After my transition, I had much more pleasure typing the code, getting advice from friends and my tutor.

In the game battleship, two players share 2 maps, with both players having their battleships on their maps, but not knowing the locations of their opponent's battleships. The players take turns guessing where a battleship is by shooting it. First player to knock out all 5 of their opponent's battleships win. I had to change certain aspects to translate it into java, but I still enjoy how it turned out.

In the board game, a battleship takes up 2-3 spaces on the map, and to knock it out you have to hit all the coordinates it takes up on the map. This felt to complicated so I simplified to a single ship taking up a single coordinate. This makes the game go faster. I also changed to a single player game where the it randomly generates 5 ships across a 10 x 10 map for you to try and shoot. To shoot a coordinate on the map, it will ask you for the row (which can be between 1 - 10), then ask for the column (also between 1 - 10). Then take that coordinate and shoot it. If it missed, it'll be represented by a "*" and if you hit, it'll be represented by an "x." Spaces you haven't hit are

represented by a "~". I also added another aspect to make it a bit easier on the player, hints. When a player puts in their coordinates, above the map will display a hint telling you how many ships are located in the row and column you plugged in. So if you select row 3 column 4, even if you miss, it might display row $3 \rightarrow 2$ ship and column $4 \rightarrow 0$ ships. I also decided to make variables for the number of columns, number of rows, and number of ships to sink, so as to make it more easier to change.

Learning java has been challenging for me, but implementing one of my favorite games into code has been enjoyable to me and motivated me more to doing it. I don't if my position on coding in general has changed, but doing this has given me a greater appreciation for it.