Halo Battleship Coding Scenario

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Battleship is a two-player guessing game. Each player has a grid on which they place their ships, and the goal is to sink all of your opponent's ships. Each player takes turns guessing coordinates on their opponent's grid, trying to hit one of their ships. If a player guesses correctly, they mark the square as a hit, and their opponent must announce that a ship has been hit. If all squares occupied by a ship have been hit, the ship is considered sunk. The game ends when one player has sunk all of their opponent's ships.

All of those are key features that make the battleship game what it's meant to be known for, which is simple and straightforward. We hope to keep the original concept of this whole game, but adding a few twists. Some of the twists will be the same 10x10, but there will be randomly generated maps.

Scenario "Game board design"

The first player starts the game by typing the name of the executable program to start the program.

When the user launches the program, the system displays a welcome text and game rules. (Full rules will be displayed by typing HELP at any time). To start the game the player will type 1 and push enter. For game options the player can push 2 at this menu screen, and for information regarding the build info of the game the player can access the about screen by pressing 3 and enter on their keyboard.

The system will then display a 10x10 matrix filled with '-'. This matrix will be the game board.

There are a total of 5 ships. The ships' names are Carrier, Battleship, Destroyer, Submarine, and Patrol Boat. The Carrier takes up 5 spaces. The Battleship takes up 4 ships. The Destroyer and Submarine each take up 3 spaces. The Patrol Boat takes up 2 spaces. The ships are represented on the game board with the first letter of their name being CBDSP in order.

The first player will type what ship they are placing on the game board. Then they will type in coordinates for the ship they will be placing on the game board. They will do this for every ship and the board will update every time a coordinate is placed. The board will be displayed each time it is updated. The player will be restricted to placing one ship at a time and must type coordinates that are adjacent to each other for a singular ship. No ships can be placed diagonally.

After every ship is placed for player 1, the next player will be shown an empty game board and will be prompted to also place their ships.

After both players place their ships, player 1 will be prompted to start attacking. Player 1 will type a coordinate on the command line. If they hit an enemy ship, that coordinate will be marked with an X. If it is a miss, it will be marked with an O. Then player 2 will attack. The game will continue until one player gets all of their ships destroyed. The game will end and an end message will be displayed.

Both players will have a matrix where they placed their ships that also displays which ships were hit, and another matrix that displays their hits and misses on the opponent's ships. At any time, the players can view either matrix at any point with these commands: 'p1 ships' for player 1's own ships, 'p1 attacks' for player 1's hits and misses, 'p2 ships' for player 2's own ships, 'p2 attacks' for player 2's hits and misses.