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Business Programing  
Project Proposal

Our project will be a battleship game. This program will allow the user to play the classic board game Battleship against a computer opponent. This idea is based on the minesweeper program that we already created in class. The program will focus several double arrays. The first double array will be the user’s board and keep track of where the users boats are located. The second double array will be for the user’s guesses, and mark if the user hit the computer’s boats or not. The third double array will be for the computer’s boats and track where those are located. The first array can hold string values, but act as T/F booleen values, storing only the values assigned to represent a boat. An example would be AAAAA for a 5 length boat, with an A in each spot in the double array the boat occupies. The A will be used for printing the board for the user to see. This will also be the same for the computers board, however, it will not be printed to the user. The second double array will be the same, but only hold X and O for hits and misses. These values will be stored and printed for the user after each guess. After each guess the program will check if the user hit an opponent’s boat and mark X or O if it was hit or not.

There will be much more than 4 functions. Some include

* Mark hit: Will place an X in array #2 and increase the users points
* Mark Miss: Will place a O in array #2.
* Already guessed: return whether or not this location has already been guessed.
* A few functions will set up the grid of the board. Set up the opponents board, the print out for your board and your guesses.
* Has won and Has lost: will determine if the user lost or won.

Then there will be functions for creating the ships and setting the board

* Set Length of ship: will set the length of the ship
* Set direction of ship: will set the direction the ship is placed in.