**BATTLESHIP GAME**

Description: Game 1 vs 1, human vs computer. Each player (human or computer) when in turn places 3 ships on a 8 x 8 board. Ship has size of 1x3. Game starts by each player choosing a position to place ship on game board (coordinates of prow, ship direction: left, right, up, down). Computer will choose ship’s position randomly or by an algorithm.

Each turn, player will choose a position (coordinate (x,y)) to shoot opponent’s ship. If opponent’s ship is shot, player can continue to shoot, if missed, next turn is opponent shooting. Game is over when one player has all ships burnt out.

Score of wining player is number of shots when game is over, the fewer the better. There is a game score board to store high score with name of players and their scores. The Score Board can store up to 10 highest scores.

To be simple, a game board is a matrix 8x8. An empty cell has value 0, ship-cell has value 1 and ship-burnt-cell has value -1.

Draw a class diagram to design for this scenario.