

BATTLESHIP GAME: Amanda Priscilla Araujo da Silva

The most challenge part of this project was how to start it. Figure out how to represent the grid, place the objects on it and save the changes. How to map each square and keep track of each status of the game were the most difficult part and what took the longest time to implement. In addition to that, almost everything we want to do we have to do a research first, so it also consumes time.

I chose to represent the grid as a matrix of float (2 arrays of float one for each coordinate). The index of the arrays is the pair of integers from 0 to 9 to represent my matrix 10x10. The value is the center point of each square since each button or image that is over a square has a frame that contains this medium point. To facilitate the placement of images, I also created them only once and saved into an NSMutableArray keeping visible or hiding when necessary.

The first grid is only an image where new images will be placed each turn and the second represents the adversary grid and is mapped by buttons to support the on click event in each square to place bombs. In the first, the user is free to place the ships in his own way (it is also his responsibility to place them correctly inside the squares. They will not overlap or allow you to leave ships out of the grid (the system gives an alert). After you place the ships, click on "Start the Battle". It will open the other grid

To avoid the opponent to see the board of the other, it is called a PopOver view to cover the screen and when the current user is ready, he can start playing safely.

The sound can be played when you explode the bombs. The ships are required to be inside the grid and not overlapping.

STEPS:

- First screen: Choose if you want to play with someone else or alone. Type your name and the name of the second player if any.
- Second Screen: The game screen. The first step is to set up your grid of ships. Drag and drop the ships from the right top and place them on the grid. Be careful with where you will leave the ship. This location will be saved exactly how you leave.
- After placed the ships, click on "SAVE GRID" and then "FINISH TURN" to give the turn to next player. It will take you to a transition screen while the new scenery is prepared.
- You you press to go back to the game screen, all the screen will be updated to the new current player.
- If the grid was saved before changing turn, it will load the ships images and their positions exactly as it was before.
- Next Action is to set up Bombs. Click on the lower grid in the square you want to place a bomb. You start with 5 bombs, one for each ship, and will miss bombs if a ship gets destroyed. To make them explode you need to press the button "FIRE". If you miss the shot there will appear a white x. When you get the shot right, it replaces with a fire signal.
- You can see how your grid will be when it is your turn again.
- Only 2 players is partially working. One player is only preparing the the grid.