

We think that the software architecture Team 6 used for their Project 1 was the 3-tier architecture.

The presentation tier is the user interface that they see and interact with. It is composed of two main pages: the first of which is one where Player 1 chooses the mode they want to play which is either against another human or the AI, the number of ships they want to have that game, and then input the positions where they want their ships to be placed and be able to look at the board to see the ships. After that, the player passes the computer to the other player to place their own ships if "human" mode was selected, otherwise the bot secretly places its ships and then allows Player 1 to move on to the next page. That second page is where each player can see their own board with their ships visible to them, the opponent's board where their ships are invisible unless attacked, as well as each player's ships' health. Users interact with this page by choosing the type of attack they want to use and where they want it. After each player's turn, the button to initiate the other player's turn is enabled for the other player to press.

The logic tier is represented by the functions that dictate the flow of the game, which is the setup phase, then each player's turn, and when the game is over after a player's ships are all sunk. These functions handle all user input and respond accordingly, where if the input is valid, the intended action occurs, otherwise the user is let know that there was an error.

The data tier is represented by all the global variables used to keep track of the different aspects of the game, including the selected mode, the number of ships, each player's ships' locations and health, the different 10x10 boards in which certain positions contain ships and/or have been attacked, and so on.

