Upon DOMContentLoaded, 1. add event listener to divs tag (tictactoe boxes) add first event listener for DOMContentLoaded to 2 add event listener to reset button document. 3 use Math random to determine AT or Human starts first. If AI starts first, AiTurn() is called immediately. minimax() 1. checks for ai win, human win, or tie if ai win. return score: 10 if human win. return score: -10 if tie. return score: 0 2. if no win or tie condition is found, means there are still additional moves to traverse through in order to reach a win or tie condition. 3. loop through the remaining available moves, on each loop, add the symbol received by minimax function into the spot then pass the instance of game board array and the opposite symbol into another minimax function to check if the 2nd minimax will return a score. The 2nd minimax function will simulate the human's turn with the new instance of the game board, hence the passing of an opposite symbol. 4. If a win or tie condition is found in the 2nd minimax, it will return a score back to the 1st minimax, and the 1st minimax will then save it into an object and push that object into an arrav. 5. in the 1st minimax function, once the loop of available moves is complete, it will go through the array and determine which is the best move with the score received.

minimax will stay with the 1st one among the same scores.

negative value, minimax will stay with the 1st one among the same scores. 6. once best position among all available moves is determined, minimax will return the best position along with the score. Position will be utilised if it is the first minimax, which will pass back to aiTurn(). Score will be utilised if it is still deep within the minimax functions, which will be used to determine the score for a move during the loop of a higher minimax function.

If the symbol is Al's symbol, it means this current minimax function is simulating the Al's turn. With this info, the best score would be the one with the highest positive value (from step 1, ai win, return score: 10), if there are a few scores with the same positive value, If the symbol is Human's symbol, it means this current minimax function is simulating the Human's turn. With this info, the best score would be the one with the lowest negative value (from step 1, human win, return score: -10), if there are a few scores with the same

When user clicks one of the 9 boxes, fires function: showXorO() showXorO() 1. check for win or tie or empty box conditions 2. input Human symbol getTestArray() into into box 3 check for win or tie 1. do a loop and make again an instance current 4. call the next function: game board into an aiTurn() array of objects, and return that array aiTurn() 1. get an instance of current game board with function getTestArray() 2. get best move for ai by calling minimax(), passing in game board and ai symbol. 3. once best position is gotten back from minimax function, place the ai symbol in the position 4. check for win and tie. \*In **showXorO()** or **aiTurn()**, if check for win or tie is fulfilled, the game ends and all further moves will be invalid, unless Reset button is clicked