

## Workshop and Homework- Dumb Tic Tac Toe Game

### **Due to your blog: Nov 20, 6AM**

#### Overview:

Using the graphics provided in the starter file, create a 'dumb' Tic Tac Toe game that works as follows:

1. The human player always goes first and plays an "X"
2. Unless the game is over, the computer player *randomly chooses an empty square* and plays an "O"
3. The game continues *until all nine squares are filled* and then "Game Over" is printed above the game (in HTML text) and the "Play Again" button becomes visible and enabled.
4. The computer does not check if someone has won before all the squares are filled, nor does it check for a winner at the end.
5. Hitting "Play Again" clears out the squares on the page and the "Game Over" and lets the player play again.

#### Final Deliverable Format:

Please upload your final deliverable in a single zip file called Hmwk9\_YourName.zip and upload it to your blog.

#### Code details:

1. A starter code is provided that sets up the basic data structures for the game as well as the HTML layout and the CSS styling for most of the game's features. However, there are a few things missing in each file that you must fill in! Be sure to read the HTML, CSS and JS files carefully to not miss any steps!
2. The game is designed using a simple array that numbers the cells from 0 to 8. Since there's no actual computer strategy in this version of the game, (unless you choose to add it as a bonus exercise), no real sense of "two-dimensionality" for data is needed.
3. Remember that good coding practice includes clearly separating functionality, so validating the player's move, having the computer make its move and determining whether or not the game is over are each separate functions, and not necessarily executed in that order!
4. Make sure your project works in Chrome!

#### Grading:

1. You will receive one point for implementing a well-labeled HTML/CSS layout that could be used for playing the Tic-Tac-Toe game. Most of the work has been done for you but you still have 3 steps to complete in the HTML and CSS files.

2. You will receive up to 2 points for successfully completing all the steps listed in the JavaScript comments and creating game that functions as described in the document.
3. Up to a full bonus points beyond the 3 for the assignment can be earned for enhancing the game. Suggestions are on the next page.
4. Visual example of a solution:



Bonus points:

*If you decide to do the bonus, please create new HTML, CSS & JS files with the word bonus in the name.*

1. 1/2 point for successfully writing the code to use two-dimensional array to represent the Tic Tac Toe board.
2. 1/2 point to dynamically add the 9 squares to the page without having to pre-create them in the HTML.
3. 1/2 point for additional checking and user feedback that you provide in implementing the game, including telling the human that she/he has clicked an already occupied square, prompting the human when its her/his turn and detecting whether the human won or lost and replacing the 'Game Over' message with this status.
4. You may also come up with your own enhancements as long as it doesn't break the game.

Please complete the assignment before attempting the bonus points. When done zip up your files, call it YourName\_Hmwk9.zip and submit it to the blog.