

I completed homework 5, and through many testing trials I believe I have all the required features working correctly. Additionally, I believed I handled all errors gracefully. However, my design is not responsive, therefore it does not work with all dimensions. A good dimension to use is “**1600 by 900**”. I also like to point out that the data structure json file I used containing letter distribution is from a past student Jason Downing. Next, I would like to discuss the method I used to implement these features.

- To randomly select the letter from the distribution. I transferred the json data structure to a javascript object and stored all the letters in an array, then used a random function to extract the letter and update data accordingly.
- Next, I turned **drag-and-drop** into **click-and-drop** to make it convenient for users using trackpad while still working correctly if you prefer drag-and-drop.
- To identify the correct tile position, I get the image's tile left position and calculate the rest of the tile's position and store them in a separate object.
- The board does include bonus squares,
- to get the correct score based on bonus squares by keeping track of the bonus tile manually through index.
- The game continues until you run out of pieces, the missing piece will be hidden using css “hidden” property.
- The board reset after each round, this is done by resetting back to the original position
- Replacing the used pieces if the piece has occupied a slot, then draw a new piece
- To keep the overall score, create another HTML element that grabs the previous score and add to the new one.

- Pieces will move back to the rack if placed anywhere else, this is done by checking the placed position with all the tiles position, if it does not match placed it back.
- If the piece is placed, it can not be moved by checking the piece's occupied position.
- All subsequent letters must be placed next to another letter, then I need to identify the first piece if none of the pieces has occupied a slot. All other pieces must be placed next to at least one other tile that has been occupied
- The game can be restarted by calling a function that will reload the page.