Ryan Park
Professor Zhou
COMP 4610
2021/12/16

Homework 5 Write Up

Program Integrity

Letter tiles in the player's "hand" are selected randomly from a data structure with the proper distribution of the letters.

The data structure I used to accomplish this was a simple array. An array was generated and filled with the amount of each letter present in the distribution.

Example: There are 2 C's and 4 D's, the resulting array word be {C, C, D, D, D, D}.

Then, a random number is picked between 0 and the array.length. This represents the index of the randomly picked letter. Thus achieving random selection with proper distribution.

Letter tiles can be dragged-and-dropped onto target Scrabble squares

Drag and droppable letter tiles was achieved using jQuery UI.

Program identifies which letter tile is dropped onto which Scrabble square

Each tile is assigned a 'data-letter' attribute which holds the letter of the tile. The attribute is used as a key throughout the program.

Board includes at least two bonus squares

The board includes a double letter square and double word square.

Score is tallied correctly, including consideration of bonus square multipliers

Yes, score is tallied correctly including bonuses.

Any number of words can be played until the player wishes to quit or depletes all tiles

Yes.

The board is cleared after each round so that a new word can be played

Yes.

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After playing a word, only the number of letter tiles needed to bring the player's "hand" back

to 7 tiles are selected

Yes.

Score is kept for multiple words until the user restart a new game (implement next vs. restart)

Score is kept after each word submission and only zeroed out if the player presses the restart button.

Tiles can only be dragged from the "rack" to Scrabble board. If the user drop them anywhere else, they will be bounced back to the "rack"

Tiles will bounce back to wherever their original drag point when dropped anywhere not o the board or rack.

Once the tile is placed on the Scrabble board, it can be moved back to the "rack"

Yes.

Except for the first letter, all sub-subsequent letters must be placed directly next to or below another letter with no space. Else, they will bounce back to the "rack".

This I was not able to accomplish and was not implemented.

User can always restart the game.

Yes.

Current Bugs

Stacking Tiles

I have one issue where tiles can be placed on slots that already contain a tile. I could not manage to get the enable/disable droppable attribute to work properly.