GUI Assignment 9 Feature Write Up

Yassir Kanane

I was able to fully implement everything on the “basic functionality” and “additional functionality” of the grading rubric. Here is my attempt to break them down into categories and explain the features:

Real time tracking of current word, score, and remaining tiles:

* The bonus squares work and calculate the score correctly by checking the attributes of the draggable and droppable on a drop event
* As letters are put onto the board, the current word is displayed on the top and is updated in real time, identifying which tile was dropped onto which board square
* Score is correctly updated if a player removes the tile, including the case where the tile was on a bonus square
* Current word score is updated based on tile placed and its point value
* Total score is kept track of throughout the game correctly
* 15 board tiles with several bonus tiles that multiply score correctly, the bonus tiles consist of double letter and double word tiles
* The player can keep submitting their words and adding to the total score using the “Submit Word” button until they run out of tiles, in which case they can click the “New Game” button to start over, or use the handy “Refill Tile Pool” button if they want to play the same game forever.

Random tile distribution

* Tiles along with their distribution that adds up to 100 are properly parsed from the JSON file and 7 tiles are distributed randomly into the rack as draggable images with their respective letter and points as custom attributes
* The user can press a “Get New Letters” button to toss their current hand and get 7 new random tiles.
* The board, current score, and current word are all successfully reset upon submitting a word, and only the number of tiles required to get a full hand of 7 are added to the rack, setting the player up for a new round with everything they need.

**Other features:**

* The blank tile opens up a dialog filled with images of all the letter tiles, using click event handler, the user can successfully choose whatever letter they want using the blank tile, and as in the real game, it is worth 0 points and the current word successfully updates with the letter chosen.

**-** Letter tiles cannot be placed on top of each other, score is correctly handled if the user attempts to do this, and the tile will revert back to it’s original position and a toast message will pop up saying “Sorry! You can place tiles on top of each other”.

**-** Board tiles light up when you hover a tile over them and tiles center when you drop them onto the board

**-** Tiles can be moved along the board while maintaining correct score

**-** If the player runs out of tiles, an alert message pops up notifying them so, and they are unable to get anymore tiles, unless they press the “Refill Tile Pool” button to cheat