Dan Loman
Homework 1

List of functionalities:

C Level:

1. Sorted alphabetically - after I extracted the query string and split it into a list, I use the .unique() function to sort the list

2. Vowels first - I looped through my unique list and appended vowels to a vowels list and consonants to a consonants list. Then, when I built my data object, I appended vowels first so they would always end up being plotted in that order.

3. Changed tick label size - Changed axis font from 10 to 20.

4. Changed y axis tick labels to integers - Set number of ticks to the maximum letter frequency (.ticks(max)), which rounded tick labels to nearest integer and eliminated fractions

5. Added underlying grid lines - used .grid.tick and .grid.path to create ticks, then appended them to my plot using functions make_x_axis and make_y_axis.

B Level:

1. Added tooltip - used d3-tip to create tooltip, then created and called tip variable which displays the frequency of each letter as it is moused over.

I believe I was able to achieve solid B level functionality on this homework. I feel I went a little above and beyond with C level functionality, as I made several aesthetic changes to my bar plot. First, I sorted my bars alphabetically, and then plotted vowels first. Then I modified my tick labels. First I made them bigger and more readable, then I converted them from decimals to integers, going from 0 to the maximum letter frequency. Finally I added light grey gridlines underlaying my plot. I tried to make sure these gridlines didn't interfere with the main visual goals of the plot. Also I should note that I went with the blue/gold color combination because I feel they compliment each other well.

My B level functionality wasn't quite as strong, as I was only able to implement one user interaction in my plot. For this part of the homework I was able to add a tooltip that shows the exact value of a bar when hovering over it. I think this is a nice touch, because

theoretically if my query string was very long I might not be able tell at first glance what the frequency of a given letter is.