Project write-up and reflection

Project overview:

In this project, the goal was to become more familiar with API's and the use of API's to create functional web applications. I used the packages urllib.request, json, and flask to create the web application. I used two API's. The first one was mapquest; this api enabled me to create functions where I could get the latitude and longitude of place names. The second API was from MBTA; this API contains all information about the subway system in Boston. However, I was concentrated on station names and whether they were wheelchair friendly. Ultimately I was able to use both API's in a nested function where I retrieved the latitude and longitude from a place name to find the closest T-station and if it was wheelchair friendly.

Project reflection:

I think this project was challenging in a multitude of ways. I think the mapquest API was relatively easy to use due to its simplicity. However, the MBTA URL setup was difficult and I needed some help from the professor. It required some trial and error to get it right, but I was pleased with the result. One specific thing that took me some time to figure out was how to use the output from the get_lat_long function as it was a dictionary and I could not use that in other functions. However, as soon as a realized that if I converted it to a tuple it would solve my issues, it was easy. I am very pleased that I was able to nest the functions that I created in other functions to make a neat code.

Building the web application was especially difficult for me because I have no experience with html or this type of coding. However, I spent significant time reverse engineering the web app demo to understand how it works. Iteratively I changed some code and ran the application to see what changed. Through this iteratively I learned a lot and became increasingly confident in the use of Flask. Ultimately, I could use what I learned to build my own application and create an app that would take a place name and return the nearest t-station and its wheelchair accessibility. However, I could not figure out how to have the user enter more than a single worded place name.