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11/29/2017**

**Assignment 4 Reflection – MBTA Helper**

***Project Overview***

MBTA Helper was designed to help those in need of finding an MBTA stop closest to them. It does this by linking together the API from the MBTA with the Google Maps API. The interface was built with html coding to create a user interface that could easily talk to the Python programming, allowing the users to input an address of a place they would like to find the nearest MBTA stop from, and obtaining the necessary results. However, due to particular time constraints, the MBTA API only allows access at certain times of the day, making the interface not available at those times (times not specified).

***Project Reflection***

Since I do not have team members for my final project, I must say this project went well. Given my experience in API’s, it was easy to break down the JSON data after I received access to the applications. However, obtaining the API keys were quite an issue, for at times even the sample API key that was provided for me for the MBTA API did not work and would not commit. This part took the longest, and continues to have random errors. Also, I had to register my application on Google Maps in order to obtain access.

In terms of scope I made the project very simple so that I could finish every necessary step, while having enough time to focus on the main project for the end of the year. The only thing I would improve was that I wish I had a partner who knew HTML, so that I could have created a better functioning and more aesthetically-pleasing interface.

The best part of the project was combining HTML with Python codes, and learning how the two programming languages interact. It was an extremely helpful guide now that I’ll be going into my final project in the next week in order to create my user interface. I had to learn how HTML worked, as well as figure out how the Google Maps and MBTA API’s worked in terms of access, parameters and output data.

In terms of the process, I did all the work by compiling what I knew with elements that I didn’t. I laid out the groundwork to get each step solved out, and tested each piece of the application (latlong function, get\_nearest\_station function, find\_nearest\_stop function, index.html and results.html) individually, running and debugging in order to obtain the necessary results from each to be able to connect them all together.