

Project Overview

Our project is closely aligned with the basic requirements. However, beyond just processing addresses and converting to latitudinal and longitudinal coordinates (and vice-versa) and returning the nearest MBTA stop via API, we also wanted to create a well-designed output. Therefore, we added in Bootstrap as well as custom CSS stylesheets to create a more visual pleasing aesthetic. Basically, the program takes an input (an address) and returns the closest MBTA stop to that location. To make the program most effective, we linked the API functionality to our Flask web app framework so that users can interface with the functionality in a clean and simple manner using HTML forms and HTTP POST request handling.

Project Reflection

As with the group project, we came to realize that it is best to take advantage of each individual member's skills instead of dividing the work up proportionately without regard for what type of work is being assigned to who. Our more seasoned members were able to use their experience to assign easier portions of the work to the less experienced members, thereby allowing them to contribute to the project in an effective way. We focused on pair-programming off of one main GitHub account to facilitate learning, but when we did do work separately we made sure to keep in consistent communication. Coordinating group work like this would be near impossible without constant communication.

While having a variety of talent and different levels of experience was a great experience, it is obvious that it creates difficulties when it comes to getting things done. While a great educational experience, we all agreed that the less-experienced members slowed the development process down, since concepts had to be explained and walked-through more carefully. This should not be understood as an issue, but rather as an observation. In terms of self-studying, we had to read and understand the Google Maps and MBTA API documentation in order to effectively complete the assignment. We found that in the end, this was not too difficult and in fact was quite energizing being able to read and understand other's code.

The more experienced programmers decided the scheduling and the assignment of tasks since they were able to more accurately gauge time requirements and difficulty levels. This enabled us to efficiently move forward with tasks such as development of the backend functions, the creation of the web app, and thorough quality testing (to deal with cases such as no user input or the input of regions for which there are no MBTA stations). This gave everyone a better chance to contribute towards the group effort.