

## Project Write-up and Reflection

### Project Overview

The purpose of this project is to build a simple website containing some static pages with a small amount of dynamic content. The website is used to take the user's address and returns the closest MBTA station for the user. For this project, I first requested APIs from MapQuest and MBTA websites. I then wrote functions using both *json* and *urllib.request* packages to get the user's current latitude and longitude, the nearest MBTA train station and its wheelchair accessible information. After dealing with the geocoding part, I then started to build the web app. I used *flask* to create the logic to make a web server quickly in Python. For the extension, I installed *flask\_sqlalchemy* and *datetime* packages to store the input in a database by using user's input time. After finishing the flask file, I then started to code the web page using both HTML and CSS. I used the bootstrap template to format my index page. I also wrote a CSS page to format the index page. I built four html pages including index, mbta map, mbta form and mbta result.

### Project Reflection

Throughout the assignment, I learnt many new coding skills and new packages. Python indeed is a powerful tool that not only could link to SQL but also could link to HTML.

The HTML part went well for me since I learned web tech last semester. However, the coding part with *flask* package is a little bit challenging for me. At first, I misunderstood the use of *flask* package. I have to watch several Youtube tutorials and ask professor to further understand how to code using *flask*. Moreover, I taught myself how to use *flask\_sqlalchemy* and *datetime* packages through Youtube videos. I also consulted the professor for how to apply the Youtube code into my assignment. Learning these new skills in Python could help me with my future Master's study and career development. I am going to Master of Science in Business Analytics program in the coming August. The knowledge I learned in this course would definitely benefit for my python skills.

If I have more time, I definitely will improve on the design of the website. I could format it better with my web tech knowledge. Moreover, I will write more programs in Python for the web app development. For example, the app could get the nearby real time train schedule. To be honest, I think this project is a little heavy for a Python beginner to accomplish in a well-shaped form. Adding other extensions will make the project looks better, but it also requires more time and effort. So, I think it might be more well scoped if this assignment is a team project.