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Project Writeup and Reflection

Question 1

Our project uses APIs from the MBTA and MapQuest to obtain the closest MBTA stop to a given location, and information as to if that stop is wheelchair accessible. It has some additional built in error checking functionality to make sure the location is within a certain range of at least one MBTA stop. The function is then run through a webapp using flask where a location would be asked as an input.

Question 2

Overall, we believe that the process with which our group accomplished this project was efficient. Our code accomplished what we intended, and it was concise and easy to follow. In the future we could improve this code with more error checking functionality, or additional UI optimization. Our group unit tested our code well by splitting parts of our code into different functions and testing each individual function with specific arguments. For instance, we made sure to check locations that were both wheelchair accessible and not wheelchair accessible to make sure the code had the proper output. We also checked locations that were too far from any MBTA stop, and made sure the blank query did not cause problems. We had to research on how to ultimately extract information from the different APIs and how to manipulate the relevant information based on the expansive data structures that were returned. We also had to research the HTML language and the flask module to make the web app via their respective documentations to make the webapp function properly. With the experience from this project, we are confident in our ability to import modules and utilize API calls going forward. However, we wish we were more proficient in HTML and CSS so that we could create a more attractive finished product.

In terms of teamwork, we divided the project evenly and each performed critical tasks for the success of the project. We divided the work into different functions, but worked closely together so that each function complemented the others. We also tried to work physically together as much as possible so we could provide feedback and assistance on the more difficult elements of the project, such as constructing proper urls. Because of our teamwork and strong communication, we did not run into any serious compatibility issues. However, at times it was challenging to understand each other's code, especially the flask related code. Since it was a relatively new topic, our HTML skills were inadequate and it was definitely a structurally different language than Python, that required some practice to learn.