# Capstone Project - Educational Business from Boston

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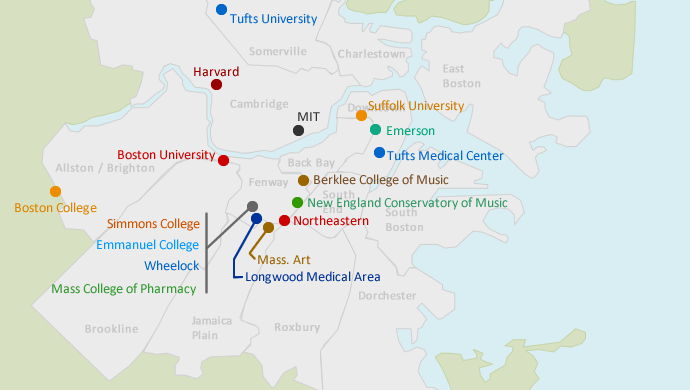
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Introduction: Business Problem 

In this project we will try to find an optimal location for an educational business, it can be a college, a nursery school, a university, etc ... Specifically, this report will be addressed to the parties interested in opening this type of business in any of the neighborhoods from the city of Boston.

As there are many educational businesses in the city and Boston, we will try to detect places where it is best to put the business and also what type of educational business is the most appropriate.

We will use our data science powers to generate some more promising neighborhoods based on this criteria. The advantages of each area will be clearly expressed so that those interested can choose the best possible final location.



Data 

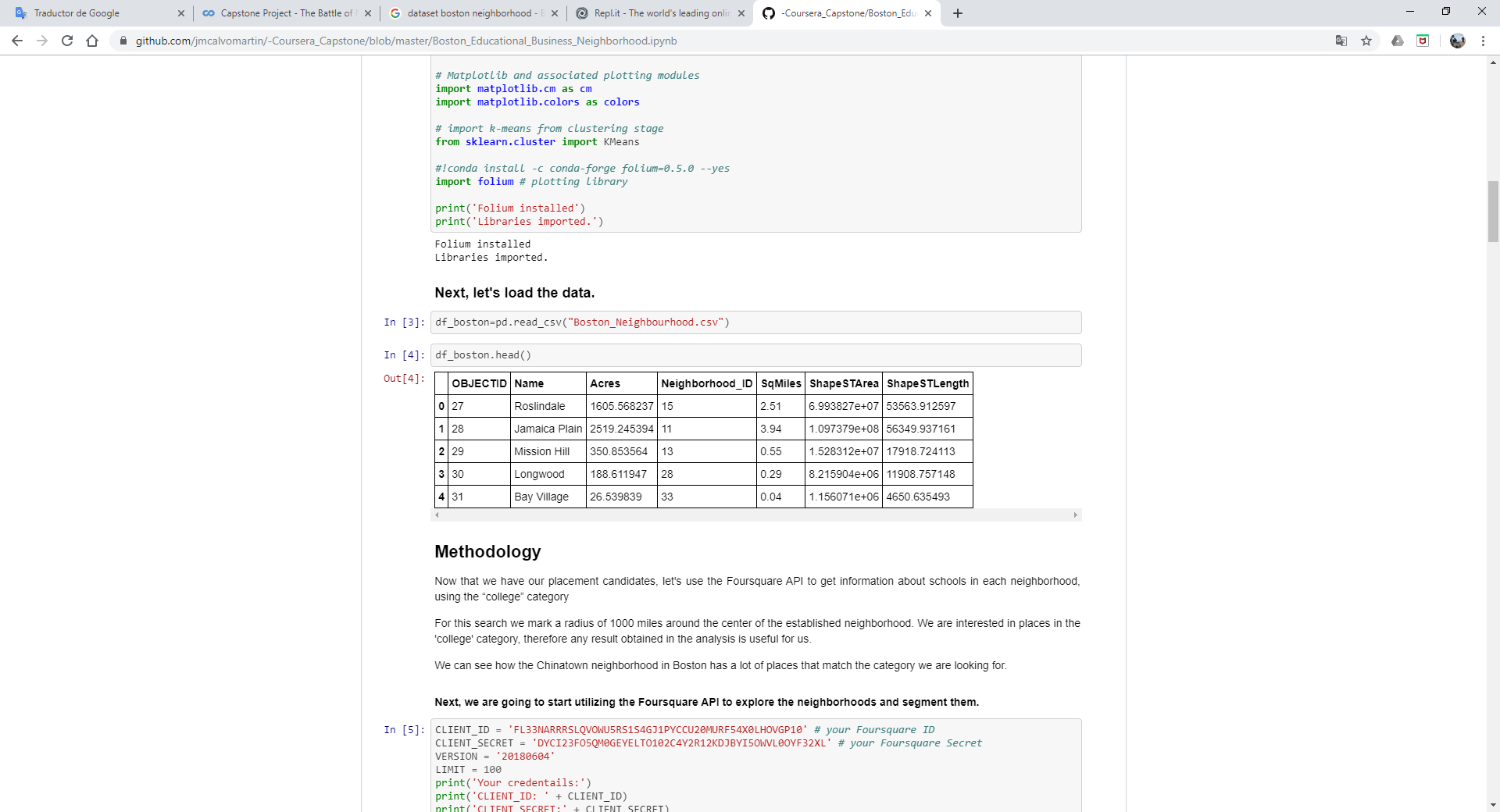
According to the definition of our problem, the factors that will influence our decision are:

* Number of schools, kindergartens, existing universities in the neighborhood
* Number and distance of schools in the neighborhood, if there are any distance from the neighborhood to the city center

The following data sources will be needed to extract / generate the required information:

The centers of the candidate areas will be generated algorithmically and the addresses of the neighborhoods will be obtained from the dataset of <https://data.boston.gov/dataset/boston-neighborhoods>

The number of schools and their type and location in each neighborhood will be obtained using the Foursquare API The coordinate of the center of Boston will be obtained using the geocoding of Nominatim



Methodology 

Now that we have our placement candidates, let's use the Foursquare API to get information about schools in each neighborhood, using the “college” category

For this search we mark a radius of 1000 miles around the center of the established neighborhood. We are interested in places in the 'college' category, therefore any result obtained in the analysis is useful for us.

We can see how the Chinatown neighborhood in Boston has a lot of places that match the category we are looking for.

Conclusion 

Interested parties will make the final decision on the optimal location of educational businesses based on the specific characteristics of neighborhoods and locations in each recommended area, taking into account additional factors such as the attractiveness of each location (proximity to the park or water) , noise levels / proximity to the main roads, availability of real estate, prices, social and economic dynamics of each neighborhood, etc.

