Finding the Ideal Location for a Mexican Restaurant in Boston, using k-Means Clustering

Introduction/Business Problem

A client wants to open a brand-new Mexican restaurant in Boston. The location of a restaurant can be crucial for its success. Thus, finding the ideal place to establish it is a very important step that has to be planned meticulously. The location of a restaurant can be determined by many factors, such as per capita income of a neighborhood, accessibility (e.g., metro stations) and how many similar restaurants exist in the area. Since it is a Mexican restaurant it is thoughtful to consider the percentage of Mexican people that live in the area. Acquiring the above data will help us to suggest potential locations to the stakeholders which will lead to their business success.

Data Acquisition

As mentioned in the introduction, when considering opening a restaurant it is useful to find data about the area, in this case Boston, and potential customers with specific demographics (e.g. high income, ethnicity). Consequently finding data about Boston and its neighborhoods is an essential part of the project. For each neighborhood information is needed about the total population, Mexican population, and per capita income. Such data can be found here. Furthermore, using Foursquare's API we will obtain the number of Mexican restaurants and other venues in each neighborhood. The number of Mexican restaurants is an indicator of the demand and the competition that exists in the area. Existing demand suggests valuable information and having quality data is key to an accurate prediction.