Finding the best location for a vegan restaurant in Los Angeles

Introduction/Business Problem

A vegan diet is being adopted by more and more people in the USA, and the demand for vegan restaurants in correspondingly increasing. This is particularly true in large multicultural cities such as New York City. Hence, this capstone project is tailored to stakeholders who are interested in opening a vegan restaurant in New York City.

We ask the following relevant questions: Which New York City neighborhood is most promising to open a successful vegan restaurant in? What types of cuisines should our restaurant provide? It is furthermore of interest how the demand for vegan restaurants and specific types of cuisines has changed over the past years, as this might influence our choice of location (we do not want to choose a popular location for vegans only to discover that the area had already been saturated with vegan options).

This project will be of interest to stakeholders who want to open a vegan restaurant in New York City. It might also be interesting for vegans who want to know about the distribution of vegan restaurants and their cuisines in New York City.

Data sources

Using the Foursquare API (https://developer.foursquare.com/places) we can retrieve current and historical information about restaurants in New York City, including location, neighbourhood characteristics, rating, and type of cuisine. To map out districts in New York City we can scrape borough names from Wikipedia and use the geocoder python package to find corresponding geospatial coordinates. Using these coordinates we can search on foursquare to find surrounding venues, including vegan restaurants.

For example, we can search for venues in Hell's kitchen in New York City using the explore function and find the surrounding venues and their characteristics. We can do this for each year over the past 10 years to see how the neighbourhood changed and how many more vegan restaurants emerged. The characteristics of boroughs (i.e. the groups of venues) are relevant to classify a borough as vegan friendly or not, simply based on the total number of vegan restaurants in that area. Similarly, it will be of interest to know what borough characteristics preceded a surge new in vegan restaurants at some point in the past years.

Following this it will be interesting to ask what types of vegan cuisines are successful according to user ratings and tipps available on foursquare.