The Battle of Neighborhoods – Capstone Project

Business Problem:

Let's say we have a client who's interested in opening an Indian restaurant in New York city and is also planning to branch out into the surrounding boroughs. The client wants to start small but is expecting to generate very good profits so that could boost the confidence besides profits made, to set up another branch. Given that New York city is vast and the presence of many top, aggressive competitors, the client wants us to analyze the neighborhoods and analyze competitors and the areas that could help in the process of making business decisions as to where to start off for making very good profits and where to branch out next.

Introduction:

New York City's demographics show that it is a large and ethnically diverse metropolis. It is the largest city in the United States with a long history of international immigration. New York City was home to nearly 8.5 million people in 2014, accounting for over 40% of the population of New York State and a slightly lower percentage of the New York metropolitan area, home to approximately 23.6 million. Over the last decade the city has been growing faster than the region. The New York region continues to be by far the leading metropolitan gateway for legal immigrants admitted into the United States.

According to 2007 American Community Survey estimates, New York City is home to approximately 236,117 people from the India. With its diverse culture, comes diverse food items. There are many restaurants in New York City, each belonging to different categories like Chinese, Indian, French etc.

We will analyze all major parts of New York City that has Indian restaurants and try to figure out what business decisions and strategies could be made for our client, to set up an Indian restaurant and expand business.

Data:

We will be utilizing the following data:

- New York City dataset in the form of JSON file that contains list Boroughs, Neighborhoods along with their latitude and longitude. We will need to convert it to a dataframe and extract all the necessary attributes such as Neighborhood, Borough, Coordinates etc.
  - Data source: https://cocl.us/new_york_dataset
- A list of Indian Restaurants in each neighborhood of New York city. By using the Foursquare API, we will fetch the venues in each neighborhood. We can filter these venues to get only the list of Indian Restaurants and analyze as per the neighborhoods. We then also extract the ratings of the respective venues to figure out the competitors' reputation and quality of food or service using Foursqaure's premium API calls. We finally put the results together from both the analysis and come up possible business decisions to be proposed to the client.
  - Data source: Foursquare API calls.