# Battle of the Neighborhoods

### Introduction

The Cuisines of New York City includes numerous foods having a place with different ethnic gatherings that have entered the United States through the city. Practically all ethnic cooking styles are very much spoken to in New York City, both inside and outside the different ethnic neighborhoods. New York City was additionally the establishing city of New York Restaurant Week which has spread the world over because of the limited costs that such an arrangement offers. In New York City there are more than 12,000 bodegas, shops and goods and numerous among them are open 24 hours per day, 7 days seven days.

## **NYC Boroughs**

New York City has the biggest Chinese populace of any city outside of Asia and inside the U.S. with an expected populace of 573,388 out of 2014 and keeps on being an essential goal for new Chinese settlers. New York City is subdivided into authority civil districts, which themselves are home to critical Chinese populaces, with Brooklyn and Queens, nearby situated on Long Island, driving the quickest development. After the City of New York itself, the districts of Queens and Brooklyn envelop the biggest Chinese populaces, individually, of all regions in the United States.

Rank	Borough	Chinese Americans	Density of Chinese Americans per square mile in borough	Percentage of Chinese Americans in borough's population
1	Queens, Chinatowns (皇后華埠 ) (2014) <sup>[18]</sup>	237,484	2,178.8	10.2
2	<u>Brooklyn, Chinatowns (布魯克林</u> <u>華埠)</u> (2014) <sup>[19]</sup>	205,753	2,897.9	7.9
3	<u>Manhattan, Chinatown (曼哈頓華</u> <u>埠)</u> (2014) <sup>[20]</sup>	107,609	4,713.5	6.6
4	Staten Island (2012)	13,620	232.9	2.9
5	The Bronx (2012)	6,891	164	0.5
6	New York City (2014)	573,388 <sup>[14]</sup>	1,881.1	6.8

References from Wikipedia

# Objectives

A Customer needs to open couple of more branches of his Chinese restaurant as a feature of business extension. To do so, he needs to know most the appropriate locations for new branches in the middle of New York where he can maximize his returns.

Need to distinguish sustenance propensities for the general population remaining in individual areas. We will examine the present cafés execution by utilizing evaluations. To investigate this we are going to list and envision every significant piece of New York City that has extraordinary Chinese eateries. We will discover the potential areas which has great measure of Chinese cafés. Going to consider evaluations of those cafés to bring bits of knowledge of how great those eateries was. The outcomes will be plotted on guide for better understanding.

### **Primary Goal**

Preprocess and transform the dataset in order to convert it into an understandable format. Generally, real-world data is often incomplete or have additional information that may not be used. This step is vital as it can help us resolve and identify existing issues.

Once the above is complete with call the FourSquare Api in order to identify the underlying venues for each of the neighborhoods. Clean the data so that all the Target Cuisine is identified. Explore the data further using FourSquare for tips, counts and ratings.

Finally help the client visualize the above data that can be helpful for interpretation using existing python libraries. (OpenStreetMap tiles, but Stamen Terrain, Stamen Toner, Mapbox Bright, and Mapbox Control)

### Secondary goal

The result set must take into consideration a metric to measure its outcome.

#### **Examples:**

- Using number of tips
- Using restaurant Ranking
- Using restaurant Rating

### Requirement

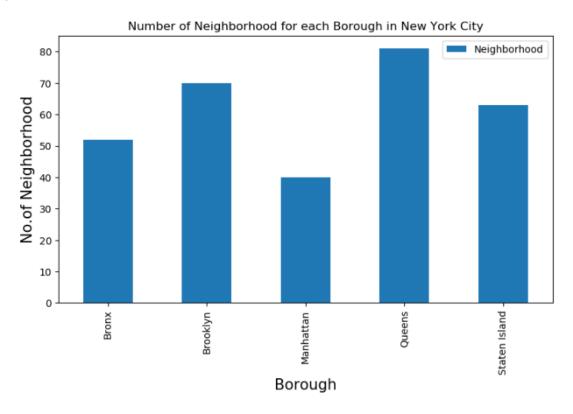
- New York Data Source that contains the various neighborhoods of New York City
- Identify the target cuisine in each of the neighborhoods. (Target = Chinese)
- A Foursquare developer account to access the API
- GeoSpace data to identify New York Borough boundaries. (To be used for map generation)
- Both Goals must be completed in order to consider the Project as a personal success

### Referentials

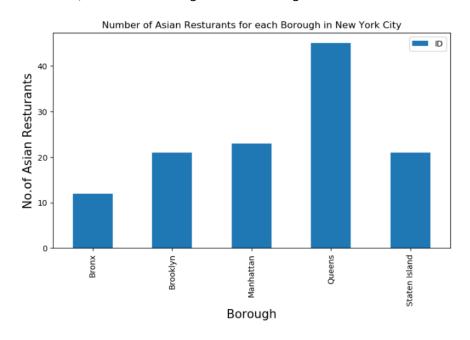
- New York City Data <a href="https://cocl.us/new\_york\_dataset">https://cocl.us/new\_york\_dataset</a>
- GeoSpaceData <a href="https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm">https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm</a>

# **Analysis**

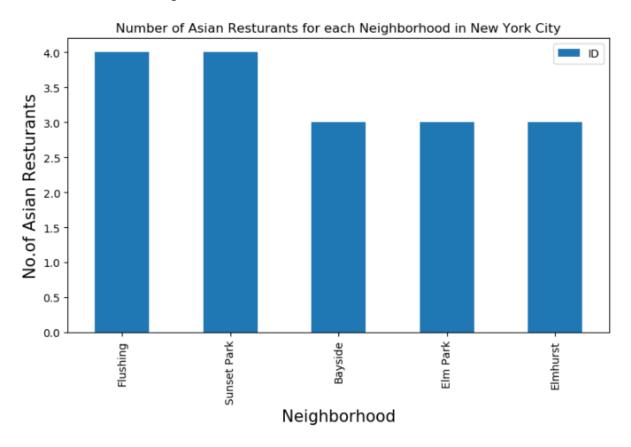
After performing the analysis using the foursquare API, we can see that 'Queens' has the highest number of Neighborhoods.



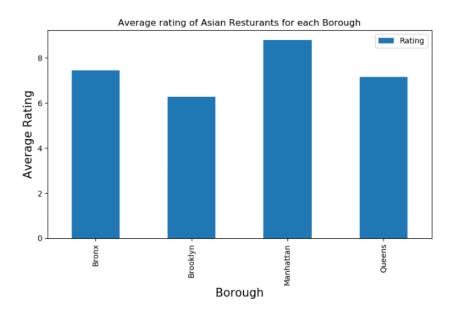
In addition to the above, Queens also managed to have the highest number of Asian Restaurants



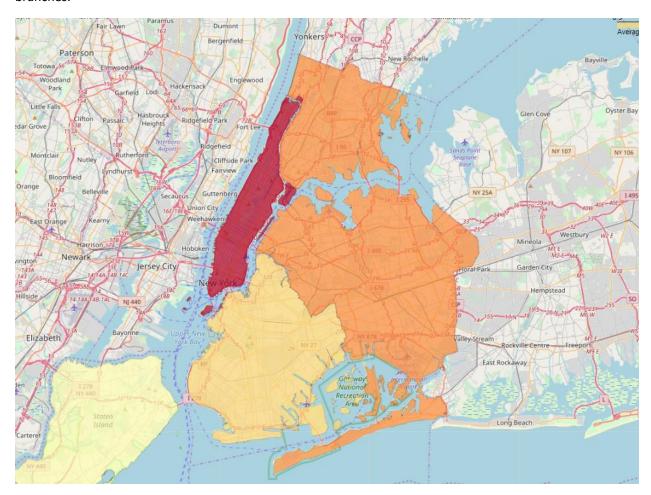
After diving deeper into the analysis, two neighborhoods come neck and neck with the number of restaurants in the area. Flushing & Sunset Park



After merging the data with the foursquare API to get the likes and ratings. Manhattan appears to be the most popular area instead with the Bronx and Queens coming in second.



A folium map has been generated in order to give us a better visualization on the breakdown. With Manhattan coming in as the recommended borough based on the popularity and ratings given to restaurants in those area. The Bronx and Queens also come in at a close  $2^{nd}$ , as other options for potential other branches.



# Conclusion

All in all, the client can consider opening restaurants in Manhattan based on the popularity of ratings within that borough. Having to open on the outskirts towards Queens and The Bronx, can help target audience from those boroughs.