

## The Battle of Neighborhoods – Week 4

The City of New York, usually called either New York City (NYC) or simply New York (NY), is the most populous city in the United States. New York is also the most densely populated major city in the United States, and has been described as the cultural, financial and media capital of the world.

New York City is home to more than 3.2 million residents born outside the United States, the largest foreign-born population of any city in the world. Asians constituted the fastest-growing segment of the city's population between 2000 and 2010; Approximately 37% of the city's population is foreign born, and more than half of all children are born to mothers who are immigrants. Asian Americans in New York City, according to the 2010 Census, number more than one million, greater than the combined totals of San Francisco and Los Angeles. New York contains the highest total Asian population of any U.S. city proper. The New York City borough of Queens is home to the state's largest Asian American population in the United States and is also the most ethnically diverse urban area in the world.

A community numbering 20,000 Korean-Korean (Chaoxianzu or Joseonjok) is centered in Flushing, Queens. Koreans made up 1.2% of the city's population.

New York City's food culture includes an array of international cuisines influenced by the city's immigrant history. Korean and other Asian restaurants, sandwich joints, trattorias, diners, and coffeehouses are ubiquitous throughout the city. The city is home to "nearly one thousand of the finest and most diverse haute cuisine restaurants in the world", according to Michelin.

In this project, we will list and visualize the neighborhoods with good Korean restaurants.

For this project we need the following data:

- New York City data that contains list Boroughs, Neighborhoods along with their latitude and longitude.  
Data source : [https://cocl.us/new\\_york\\_dataset](https://cocl.us/new_york_dataset)  
Description : This data set contains the required information. And we will use this data set to explore various neighborhoods of new york city.
- Korean restaurants in each neighborhood of new york city  
Data source : Fousquare API  
Description : By using this api we will get all the venues in each neighborhood. We can filter these venues to get only Korean resturants.
- GeoSpace data  
Data source : <https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tgmj-i8zm>  
Description : By using this geo space data we will get the New york Borough boundaries that will help us visualize choropleth map

## Approach

- Collect the new york city data from [https://cocl.us/new\\_york\\_dataset](https://cocl.us/new_york_dataset)
- Using FourSquare API we will find all venues for each neighborhood
- Filter out all venues that are Korean Resturants

- Find rating , tips and like count for each Korean Resturants using FourSquare API
- Using rating for each resturant, we will sort that data
- Visualize the Ranking of neighborhoods using folium library(python)

Questions that can be asked using the datasets noted earlier:

- What is best location in New York City for Korean Cuisine ?
- Which areas have potential Korean Resturant Market ?
- Which all areas lack Korean Resturants ?
- Which is the best place to stay if I prefer Korean Cuisine ?

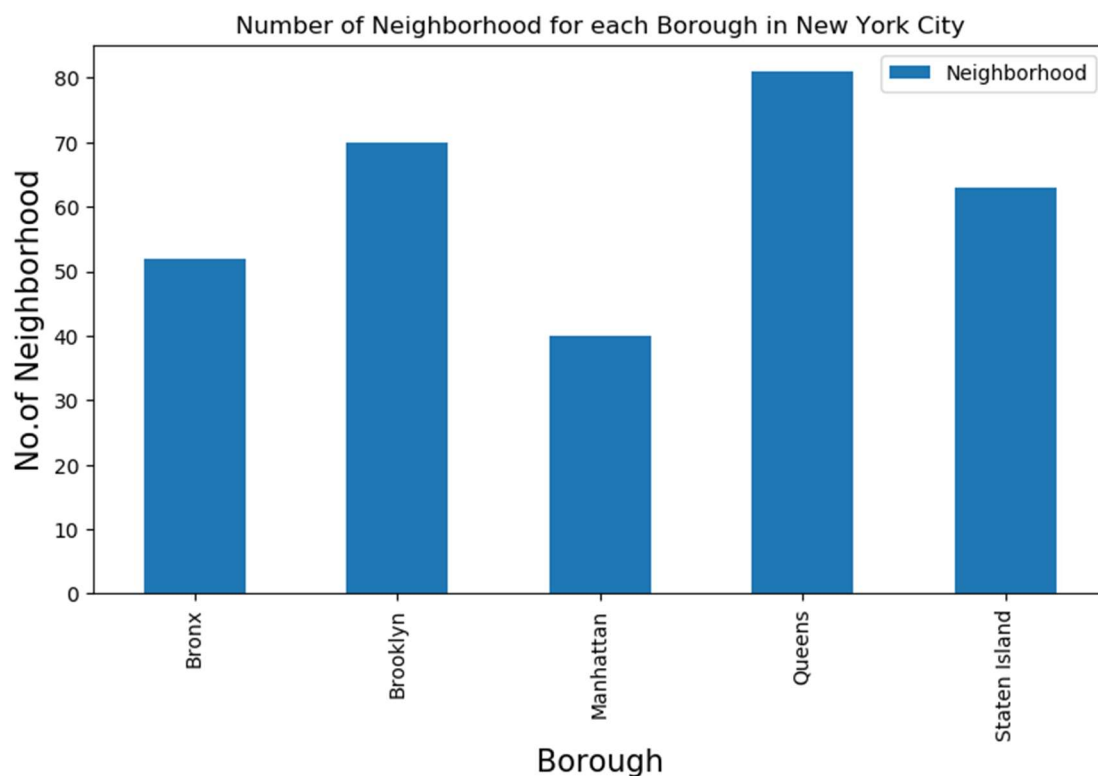
Analysis

We will import the required libraries for python.

- pandas and numpy for handling data.
- request module for using FourSquare API.
- geopy to get co-ordinates of City of New York.
- folium to visualize the results on a map

Results

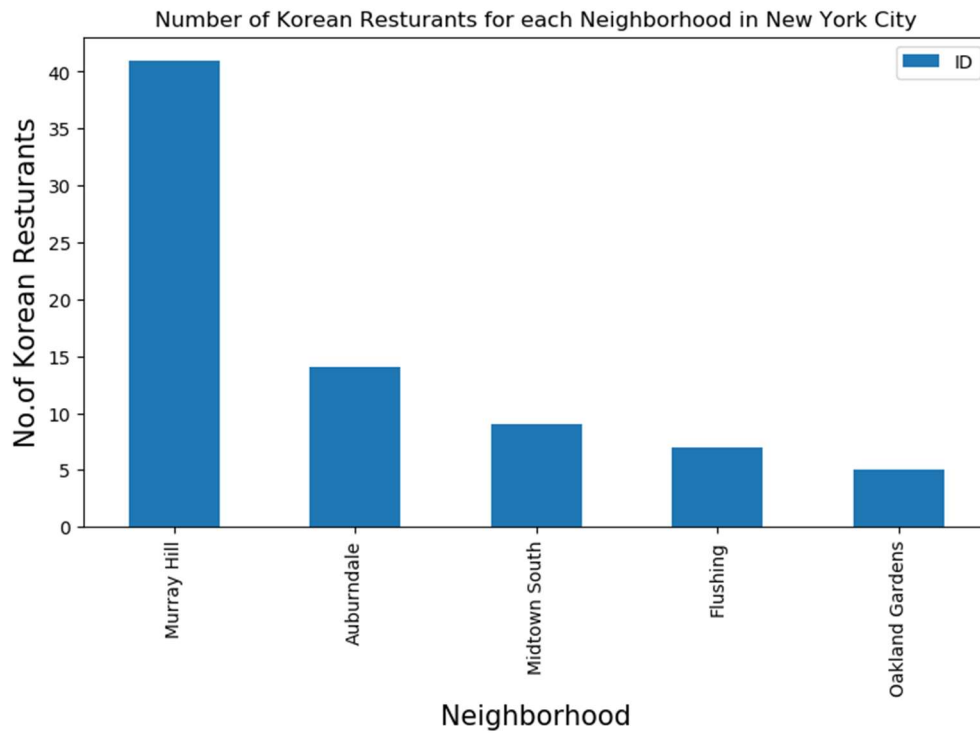
1. We see that Queens has the highest number of Neighborhoods.



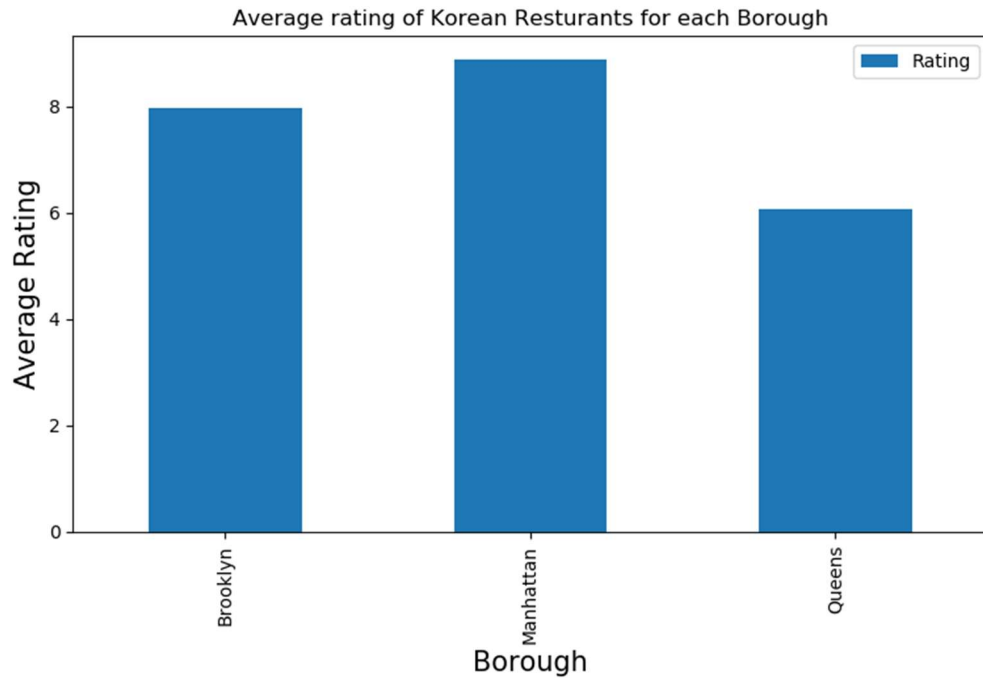
2. Also Queens has the highest number of Korean Restaurants



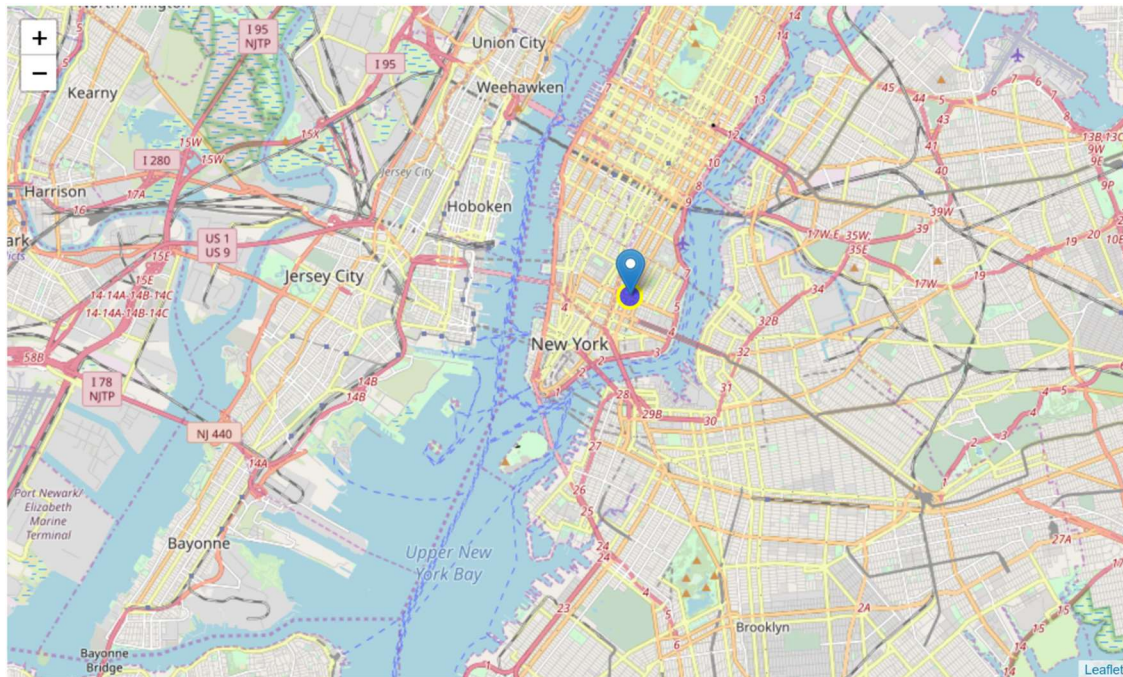
3. Murray Hill has the highest number of Korean Restaurants with a total count of 41 - with 36 restaurants in Queens and 5 in Manhattan



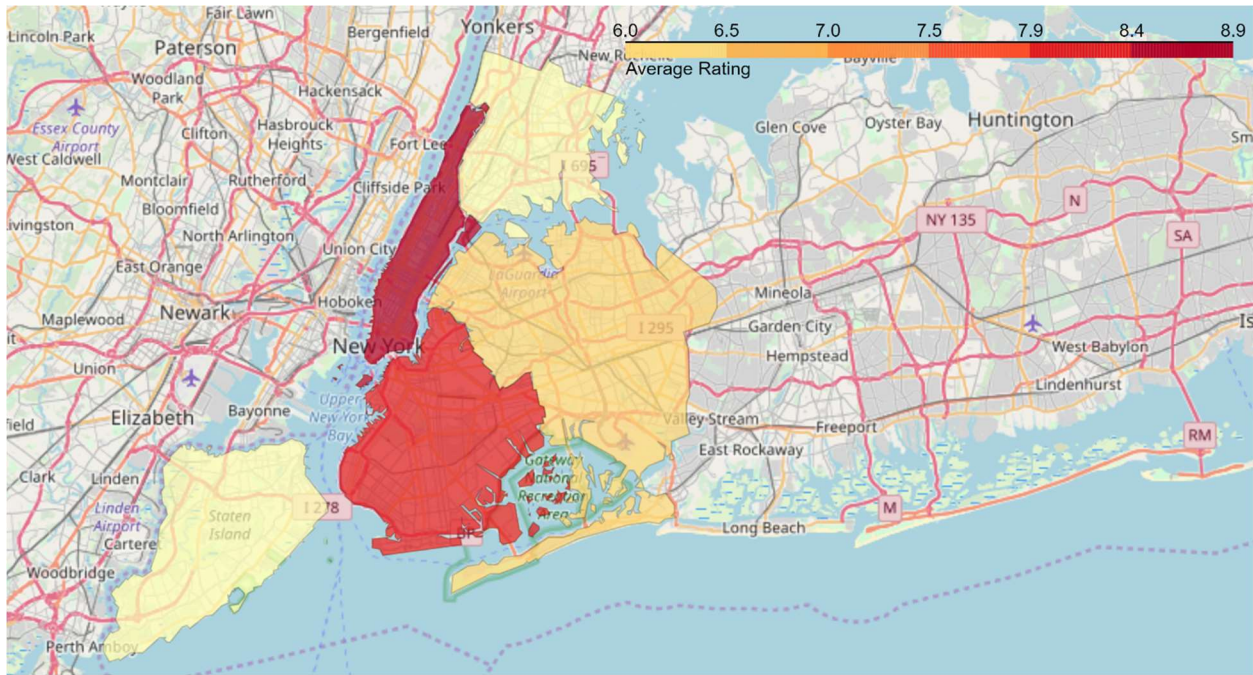
4. Manhattan has the highest average rating for Korean Restaurants.



5. Best Neighborhood for Korean Restaurants – Map view



## 6. Borough Choropleth map based on average rating of Korean Restaurants.



### Conclusions:

- Noho (Manhattan), East Village (Manhattan), Midtown South (Manhattan) are some of the best neighborhoods for Korean cuisine.
- Queens have potential Korean Restaurant Market.
- Staten Island and Bronx do not have any Korean Restaurants.
- Manhattan is the best place to stay if you prefer Korean Cuisine.

### Limitations:

- The ranking is purely on basis of rating of restaurants
- The accuracy of data depends purely depends on the data provided by FourSquare