

JAPANESE RESTAURANT CLUSTERING IN NEW YORK CITY

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SNEHA SRUTHI V

KONNICHIWA FROM NYC

- New York is a major metropolitan area with more than 8.8 million (Macrotrends, 2020) people living within city limits.
- As of 2019, a total of 45,000 Japanese Nationals reside in the Greater New York City area - Many of them are from transient groups such as university students, artists, and business workers.

This project explores which neighborhood and boroughs of New York City have the most & best Japanese restaurants.

PROBLEM STATEMENT

WHEN BELLY RULES THE MIND

- Best location(s) for Japanese cuisine in New York City?

(Data from Borough & Neighborhoods with maximum Japanese restaurants to be used)

- Potential Neighborhood and/or borough to open a Japanese restaurant & have the best chance of being successful?

(Data from Borough & Neighborhoods with highest & least number of Japanese restaurants used)

- Best Japanese cuisines in New York City?

(Data about Best average rating restaurants)

DATA

- ❑ To answer the above questions, data on New York City neighborhoods, boroughs, including boundaries, latitude, longitude, restaurants, and restaurant ratings and tips are required.
- ❑ The data sources used are:
 1. https://cocl.us/new_york_dataset
 2. <https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>
 3. Foursquare API via the Request library in Python
 - ❑ Procure all data related to locations and user ratings of Japanese restaurants

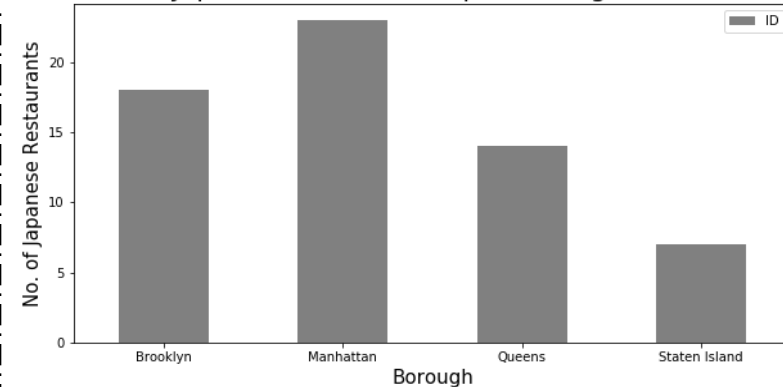
FIND THAT FŪDO!!

- ❑ Collected data is cleaned and processed into a dataframe.
- ❑ Venues are located using FourSquare API which are then filtered by category of Japanese restaurants.
 - ▣ Ratings, tips, and likes by users are counted and added to the dataframe.
- ❑ Data is sorted based on average ratings
- ❑ Finally, the data is visualized using graphing functions from Python library like Folium

LOCATE MY FAVORITE SHOKUDO

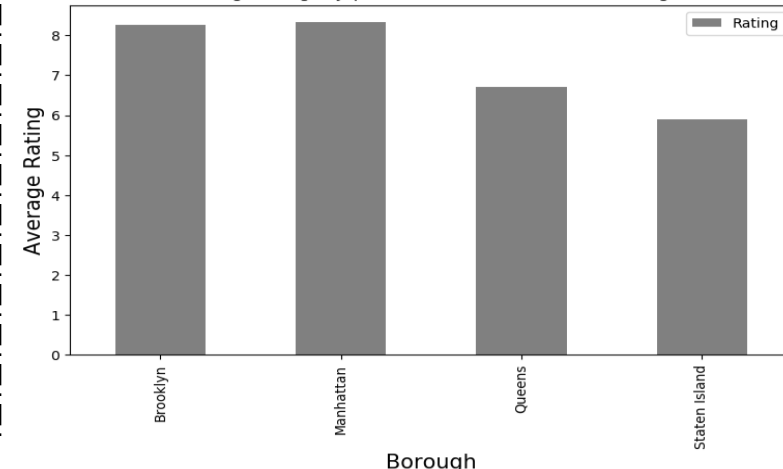
- From the New York data set, we observe there are 306 neighborhoods in NYC
 - ⇒ Top 5 neighborhoods per Borough : Manhattan, Brooklyn, Queens, Staten Island, Bronx
 - ⇒ Queens has highest number of neighborhoods & Manhattan the least
- Foursquare API gives a total of 63 Japanese restaurants in NYC
 - ⇒ Manhattan has the most number of restaurants (>20), followed by Brooklyn(>15) and Staten Island, the least(~5)
 - ⇒ Neighborhoods Murray Hill and Midtown South have 4 restaurants each followed by the rest
- Foursquare API limits on calls per day for Sandbox Account => limit query to 50
 - ⇒ Manhattan and Brooklyn house Japanese restaurants with Average rating ≥ 8 and are the most popular and visited

Japanese Restaurants per Borough: NYC



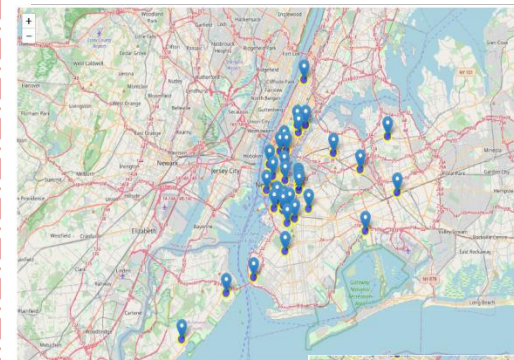
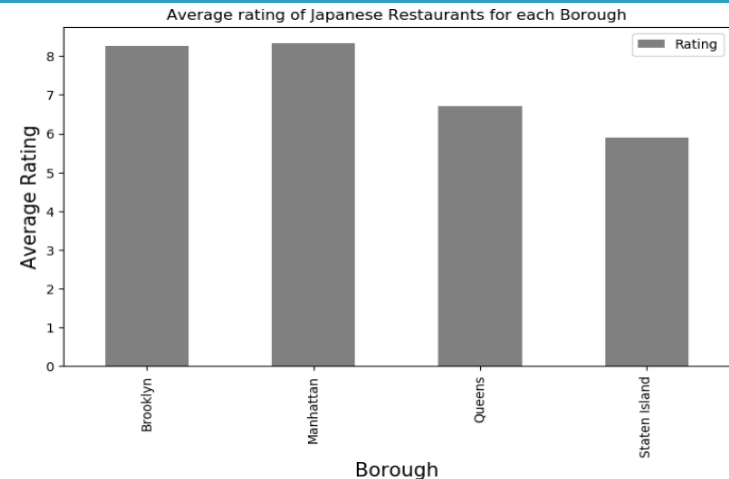
| Borough | Neighborhood | ID | Name | Likes | Rating | Tips |
|-----------|---------------|--------------------------|--------------------------------------|-------|--------|------|
| Manhattan | Midtown South | 51e8ce40498ea1fb0180efb2 | Izakaya MEW | 1055 | 8.7 | 266 |
| Manhattan | Midtown South | 57ab615d498eef084faa348b | Abiko Curry | 132 | 8.3 | 28 |
| Manhattan | Midtown South | 5d7a9d59a369d40008dfcc1a | Konbini | 16 | 8.2 | 2 |
| Manhattan | Midtown South | 58b8ed467220e661ddf34104 | KazuNori: The Original Hand Roll Bar | 520 | 9.1 | 125 |
| Brooklyn | Mill Basin | 4d7fc91f95c1a143260eecd2 | Yoshi | 7 | 7.4 | 7 |

Average rating of Japanese Restaurants for each Borough



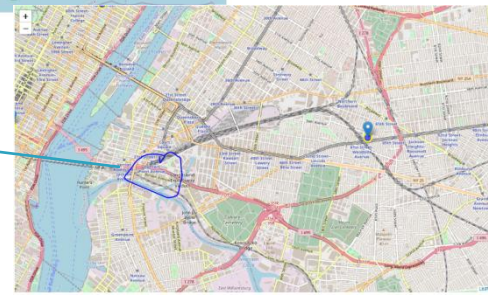
FOOD DEEP IN SHALLOW BROOKS

- *Best location(s) for Japanese cuisine in New York City?*
 - ▣ **Murray Hill** in Manhattan and Queens is the best location for Japanese Cuisine ✓
- *Potential Neighborhood and/or borough to open a Japanese restaurant & be successful?*
 - ▣ Neighborhoods in **Flatiron, Hunters Point, Mill Basin** can be considered for a new restaurant to be successful as there are only **1 or 2 restaurants with rating > 7** ✓
- *Best Japanese cuisines in New York City?*
 - ▣ Based on Average ratings and user likes & tips, restaurants in **Brooklyn & Manhattan** have the **best Japanese cuisines** ✓
 - ▣ These could be hangout places for students or working professionals
 - ▣ Enjoy their home cuisine and satiate their taste buds at a central location



Japanese
restaurants
in NYC

Hunters
Point



MAP VISUALIZATION OF JAPANESE RESTAURANTS

(Average Rating > 7)

Manhattan, Brooklyn, Queens, Staten Island

