THE BATTLE OF NEIGHBORHOODS - NEW YORK CITY

IBM APPLIED
DATA SCIENCE
CAPSTONE

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INTRODUCTION

- NYC is the most populous city in the United States with an estimated 2019 population of 8,336,817 distributed over about 302.6 square miles (784 km2)
- Its neighborhood contains all kind of restaurants with different categories, such as Chinese, Indian, Italian food etc., which provides me enough data and choices to do the analysis



BUSINESS PROBLEM

- find the best place to open a new Japanese restaurant

1

List and visualize all Japanese restaurants in five boroughs.

2

Find which borough has the most potential Japanese food market.

3

Find where the best place is for a newly opened Japanese restaurant in NYC.

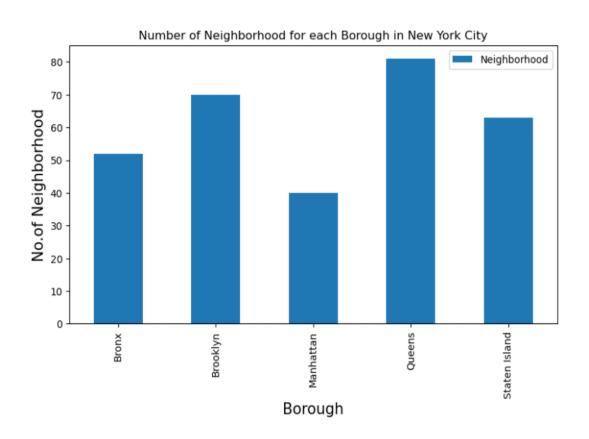
DATA SOURCES

- 1. New York City data that contains list Boroughs, Neighborhoods along with their latitude and longitude.
 - number of total existing restaurants in each borough (any type of restaurant).
 - number of Japanese restaurants in the neighborhood.
- 2. Four-square API as the prime data gathering source as it has a database of millions of places

DATA ANALYSIS

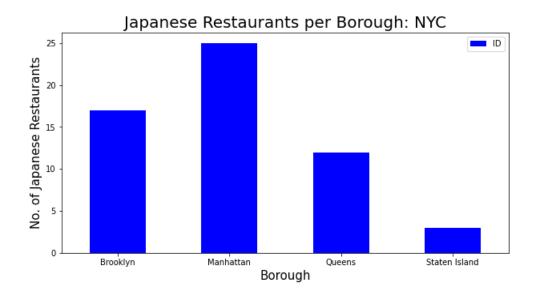


New York City has 5 boroughs and 306 neighborhoods in total

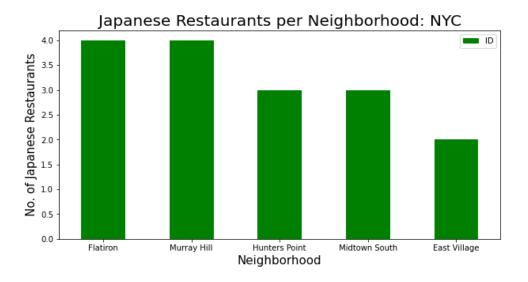


Queens has the greatest number of neighborhood;

Manhattan has the least neighborhoods.



- Manhattan has the most Japanese Restaurants
- Staten Island has the least restaurants.



- Flatiron and Murray Hill have the greatest number of restaurants
- both neighborhoods are from Manhattan

There are totally 57 Japanese restaurants in 5 boroughs

RATING, LIKES & TIPS

Table 1 Table of top 5 neighborhoods with the highest rating

	Neighborhood	Average Rating
9	East Village	9.250000
16	Hunters Point	8.866667
7	Cobble Hill	8.800000
8	Downtown	8.800000
28	North Side	8.600000

Table 2 Table of Boroughs with average restaurant rating

	Borough	Average Rating
1	Manhattan	8.220000
3	Staten Island	7.466667
0	Brooklyn	7.456250
2	Queens	6.572727

- Morimoto from Manhattan has the maximum likes and tips
- Suki Curry from Manhattan has the highest rating.
- East Village has the highest average rating
- Manhattan has the highest average rating with the most Japanese restaurants
- Queens has the least average rating with only 6.57.



CONCLUSION

For business starters:

- 1. Manhattan may be a good choice to open a new Japanese restaurant. Though Manhattan has already had many Japanese restaurants, its great location and busy population could help you to have a better customer volume compared with other boroughs.
- 2. Staten Island is also suitable for a new Japanese restaurant, because it has the least number of Japanese restaurants and may have a large potential market.

CONCLUSION

For Japanese food lovers:

- 1. Manhattan could always be the right place to go if you want to enjoy the most traditional and highly appreciated Japanese restaurants;
- 2. Be aware of Japanese restaurants in Queens since overall, they do not have a good performance.