

THE BATTLE OF NEIGHBORHOOD

IBM APPLIED DATA SCIENCE

CAPSTONE

Analysis on Japanese Restaurant in New York

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► 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.
- This project explores the best locations for Japanese restaurants throughout the city of New York. Potentially the owner of the new Japanese restaurant can have great success and consistent profit. However, as with any business, opening a new restaurant requires serious considerations and is more complicated than it seems from the first glance. In particular, the location of the restaurant is one of the most important factors that will affect whether it will have success or a failure. So our project will attempt to answer the questions “Where should the investor open a Japanese Restaurant?” and “Where should I go If I want great Japanese food?”

BUSINESS PROBLEM

The objective of this Capstone project is to analyze and select the best locations in the city of New York to open a new Japanese restaurant. Using Data Science methodology and instruments such as Data Analysis and Visualization, this project aims to provide solutions to answer the business question: Where in the city of New York, should the investor open a Japanese Restaurant?

DATA

To solve the problem, we will need the following data:

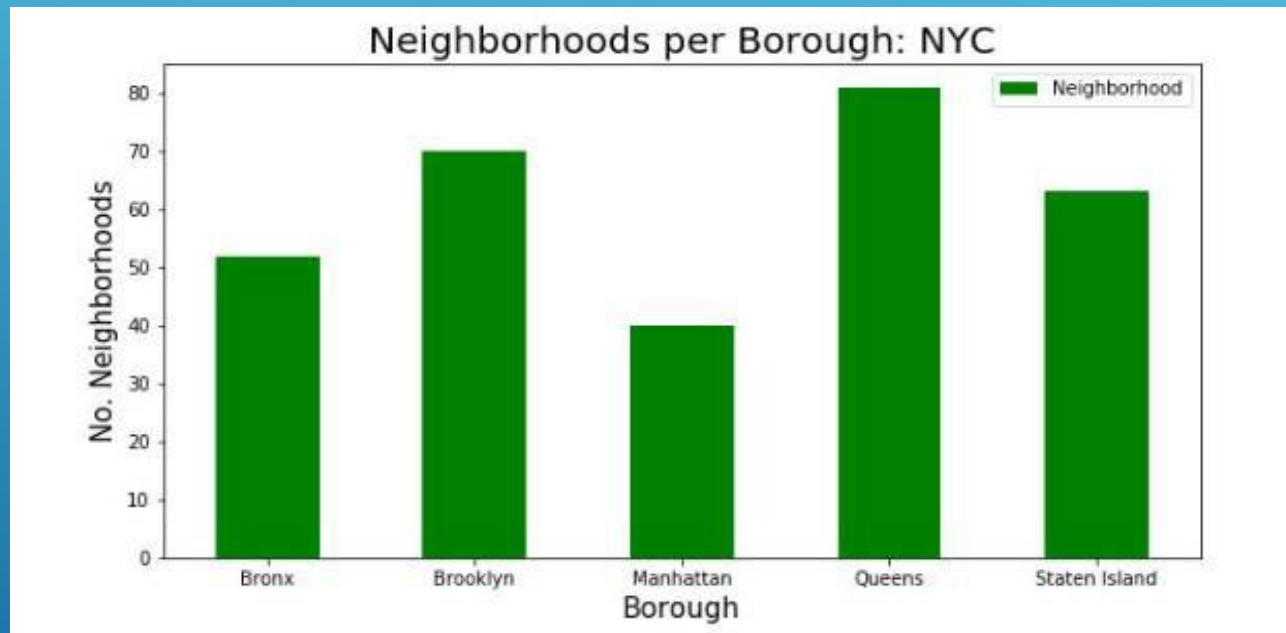
- New York City data containing the neighborhoods and boroughs.
- Latitude and longitude coordinates of those neighborhoods. This is required to plot the map and get the venue data.
- Venue data, particularly data related to restaurants. We are going to use this data to perform further analysis of the neighborhoods.

Methodology

- Data will be collected from https://cocl.us/new_york_dataset and cleaned and processed into a dataframe.
- FourSquare be used to locate all venues and then filtered by Japanese restaurants. Ratings, tips, and likes by users will be counted and added to the data frame.
- Data will be sorted based on rankings.
- Finally, the data be will be visually assessed using graphing from Python libraries.

RESULT

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



	Neighborhood	Average Rating
9	Cobble Hill	9.100000
36	North Side	9.100000
15	Flatiron	8.975000
12	East Village	8.950000
25	Hunters Point	8.933333
16	Fort Greene	8.900000
1	Boerum Hill	8.800000
10	Downtown	8.800000
33	Midtown South	8.800000
6	Chelsea	8.750000

Top Ten neighborhoods with Japanese Restaurants with the best average rating

CONCLUSIONS

In the project we have gone through the process of identifying the business problem, specifying the data required, extracting and preparing the data, performing data analysis, and lastly providing recommendations to the investors/developers. During the project, we applied different data science methods and instruments to get the answer to our main question: "Where in the City of New York, should the investor open a Japanese Restaurant?" The findings of this project will help the relevant investor better understand the advantages and disadvantages of different New York neighborhoods/boroughs in terms of opening a Japanese restaurant.