

# Exploring Opportunities for Upcoming Japanese Restaurant in New York City

# 1. Introduction

## 1.1 Background

New York, also known as the Big Apple, is a city which offers infinite things to do and places to see. To make the most of your holidays, preparing your trip well and a good guide of the city are essential. It is possible to find all different types of restaurants and prices in the Big Apple. Culinary speaking, New York City isn't expensive and it is perfectly possible to spend little when eating out.

### Typically, Best Areas to Eat Out

In all of New York, you'll find fast-food, diners and tasty restaurants, but we recommend going to the following neighborhoods for the best selection of restaurants:

- Chinatown for Asian dishes with good prices and huge portions
- Little Italy where you can find pizza or pasta with the authentic Italian quality
- Times Square Times Square is full of American food for tourists

These show the typically area that tourists and local people can find food but do not present exactly the number of particularly interested restaurant.

In this report will explore the present Japanese Restaurant and opportunities for upcoming Japanese Restaurant in New York City

As New York consists of 5 main districts, I will aim to analyze the problem by looking into existing Japanese restaurant within the individual districts.



## 1.2 Target Audience

- Businesses/Entrepreneurs who want to open the restaurant
- Consumers who want to know the all of Japanese restaurant in New York area
- Data Scientists who interest in exploratory analysis

# 2. Data

## 2.1 Data Sources

- Lists of Districts in New York City
- Location Data (Coordinates)

Example of Dataset has been used in the project.

	Borough	Neighborhood	Latitude	Longitude
0	Bronx	Wakefield	40.894705	-73.847201
1	Bronx	Co-op City	40.874294	-73.829939
2	Bronx	Eastchester	40.887556	-73.827806
3	Bronx	Fieldston	40.895437	-73.905643
4	Bronx	Riverdale	40.890834	-73.912585

## 2.2 Data Mining

- Restaurant Data

Retrieving data from foursquare website sort by interested restaurant “Japanese Restaurant”

```
( 1 / 306 ) Japanese Restaurants in Wakefield, Bronx:0
( 2 / 306 ) Japanese Restaurants in Co-op City, Bronx:0
( 3 / 306 ) Japanese Restaurants in Eastchester, Bronx:0
( 4 / 306 ) Japanese Restaurants in Fieldston, Bronx:0
( 5 / 306 ) Japanese Restaurants in Riverdale, Bronx:2
( 6 / 306 ) Japanese Restaurants in Kingsbridge, Bronx:2
( 7 / 306 ) Japanese Restaurants in Marble Hill, Manhattan:0
( 8 / 306 ) Japanese Restaurants in Woodlawn, Bronx:0
( 9 / 306 ) Japanese Restaurants in Norwood, Bronx:0
```

Example of retrieving Japanese Restaurant data

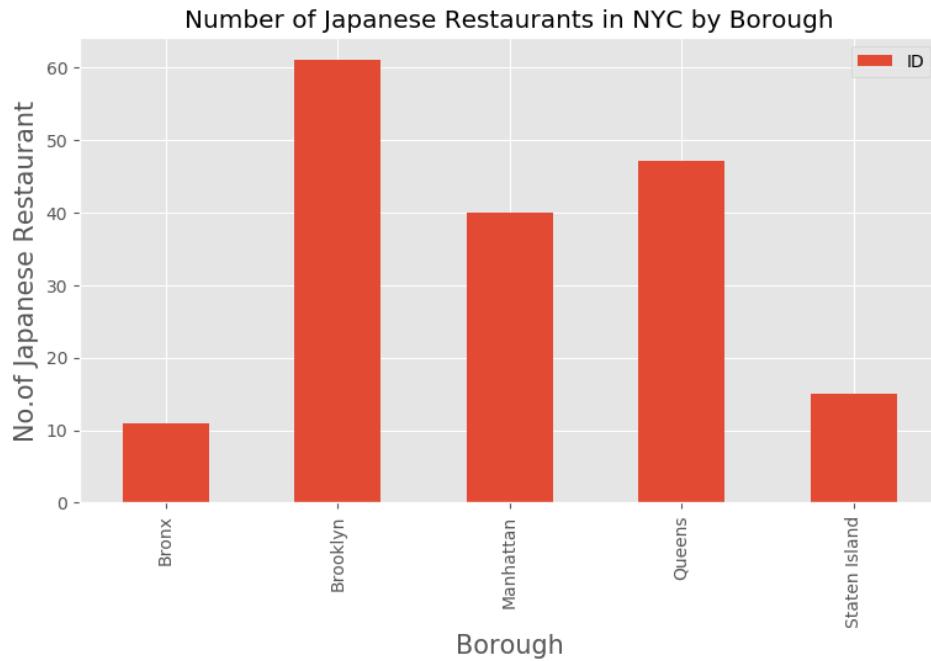
	Borough	Neighborhood	ID	Name
0	Bronx	Riverdale	503cff4b066d39de5005a	Aoyu Japanese Restaurant
1	Bronx	Riverdale	4b0b311af964a520642e23e3	Palace of Japan
2	Bronx	Kingsbridge	503cff4b066d39de5005a	Aoyu Japanese Restaurant
3	Bronx	Kingsbridge	4b0b311af964a520642e23e3	Palace of Japan
4	Bronx	City Island	4dbdf3d790a02849cbd675be	Ohana Japanese Habachi Seafood & Steakhouse

### 3. Methodology

- 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 Japanese Restaurants.
- Find rating, tips and like count for each Japanese Restaurants using FourSquare API.
- Using rating for each restaurant, we will sort that data.
- Visualize the Ranking of neighborhoods using folium library

### 4. Results

#### 4.1 Popularity of Japanese Restaurant in New York



- The most popular area of Japanese Restaurant is Brooklyn
- The least popular area of Japanese Restaurant is Bronx

## 5. Discussion

### 5.1 Potential Locations for Japanese Restaurant

- The successful possibility of investing Japanese Restaurant is the Bronx area because there are less competitive.
- However, the other factors should be incorporated for future investment decision such as the type of Japanese Restaurant, the average price of food over the neighborhood area, property and estate price, operating cost, and overall revenue for doing business over the interested area.

### 5.2 Limitations

- Some data used could be the accuracy of the Foursquare information such as the name of restaurant However, rating data is not available; therefore, the interpretation could be inaccurate.

## 6. Conclusion

This project has provided deep insight on the food venues in New York City, and can also be used to analyze the potential of setting up various types of food shops in the area. Furthermore, the project has demonstrated how skills in data mining, data cleaning, data visualization and machine learning can be combined and harnessed to solve a Data Science problem.