

# Capstone Project – The Battle of Neighborhoods (Week 2)

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# 1. 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. New York City was home to nearly 3.1 million immigrants in 2018, accounting for approximately 37% of the population of the city.

With its diverse culture, comes diverse food items. There are many restaurants in New York City, each belonging to different categories like Chinese, Indian, French etc.

So as part of this project, **we will list and visualize all major parts of New York City that has Vietnamese restaurants. This will help us to see the potential areas where we can open a Vietnamese restaurant.**

*Photo source: Internet*



## 2. Data

For this project we need following data:

- **New York City's data that contains list Boroughs, Neighborhoods along with their latitude and longitude:** This data set contains the required information. And we will use this data set to explore various neighborhoods of New York city.  
(Data source : [https://cocl.us/new\\_york\\_dataset](https://cocl.us/new_york_dataset))
- **Vietnamese restaurants in each neighborhood of New York City:** By using API we will get all the venues in each neighborhood. We can filter these venues to get only Vietnamese restaurants. (Data source: Foursquare API)
- **GeoSpace data:** By using this geo space data we will get the New York Borough boundaries that will help us visualize choropleth map.  
(Data source: <https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>)

Photo source: Internet



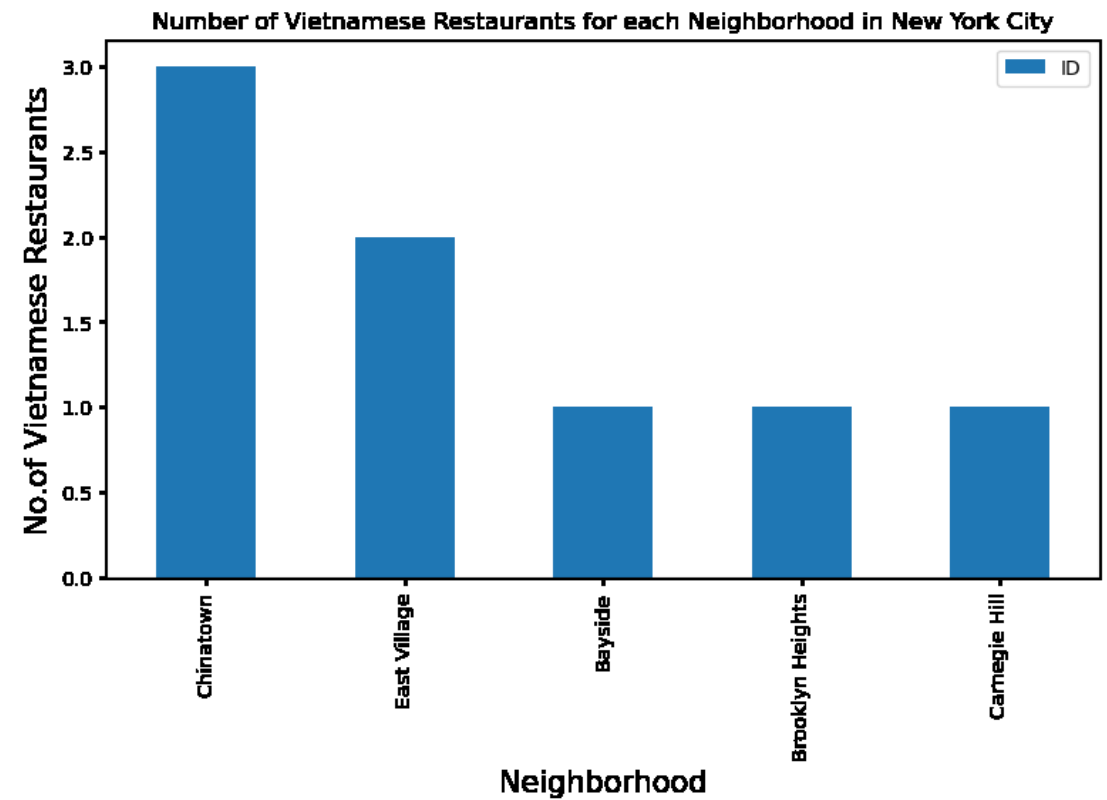
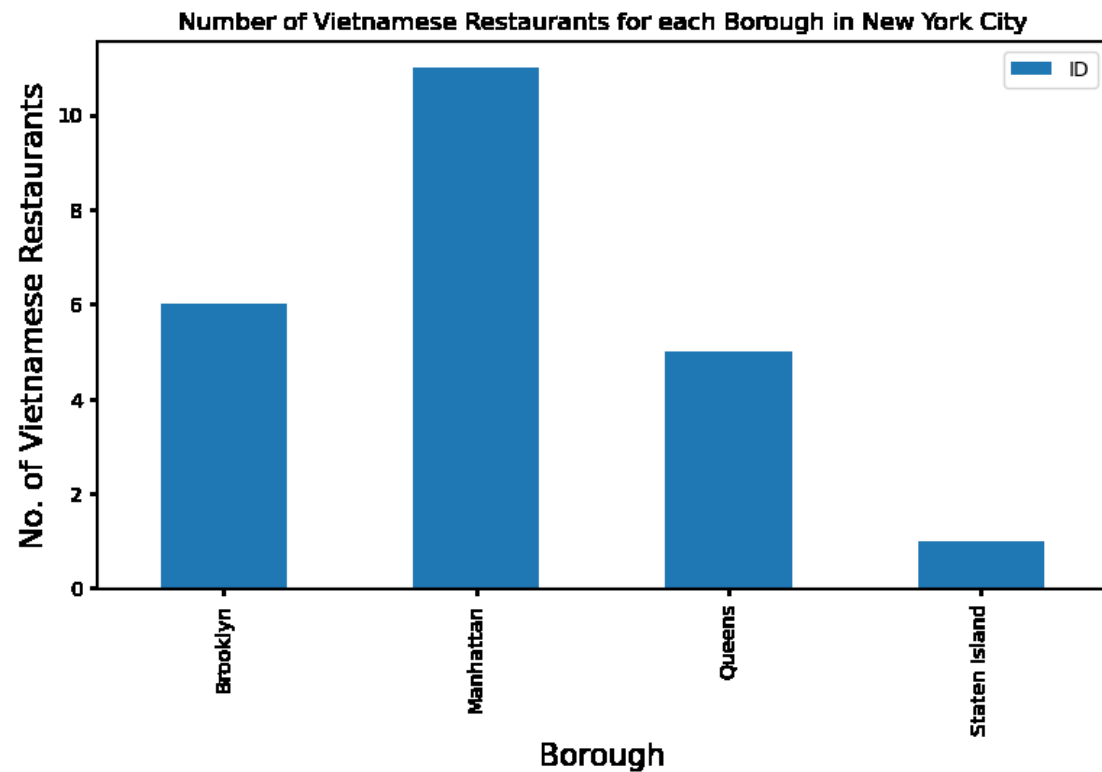
# 3. Methodology

- 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 Vietnamese restaurants
- Find rating, tips and like counts for each Vietnamese restaurant using Foursquare API
- Use rating for each restaurant, we will sort that data
- Visualize the ranking of neighborhoods using folium library (python)

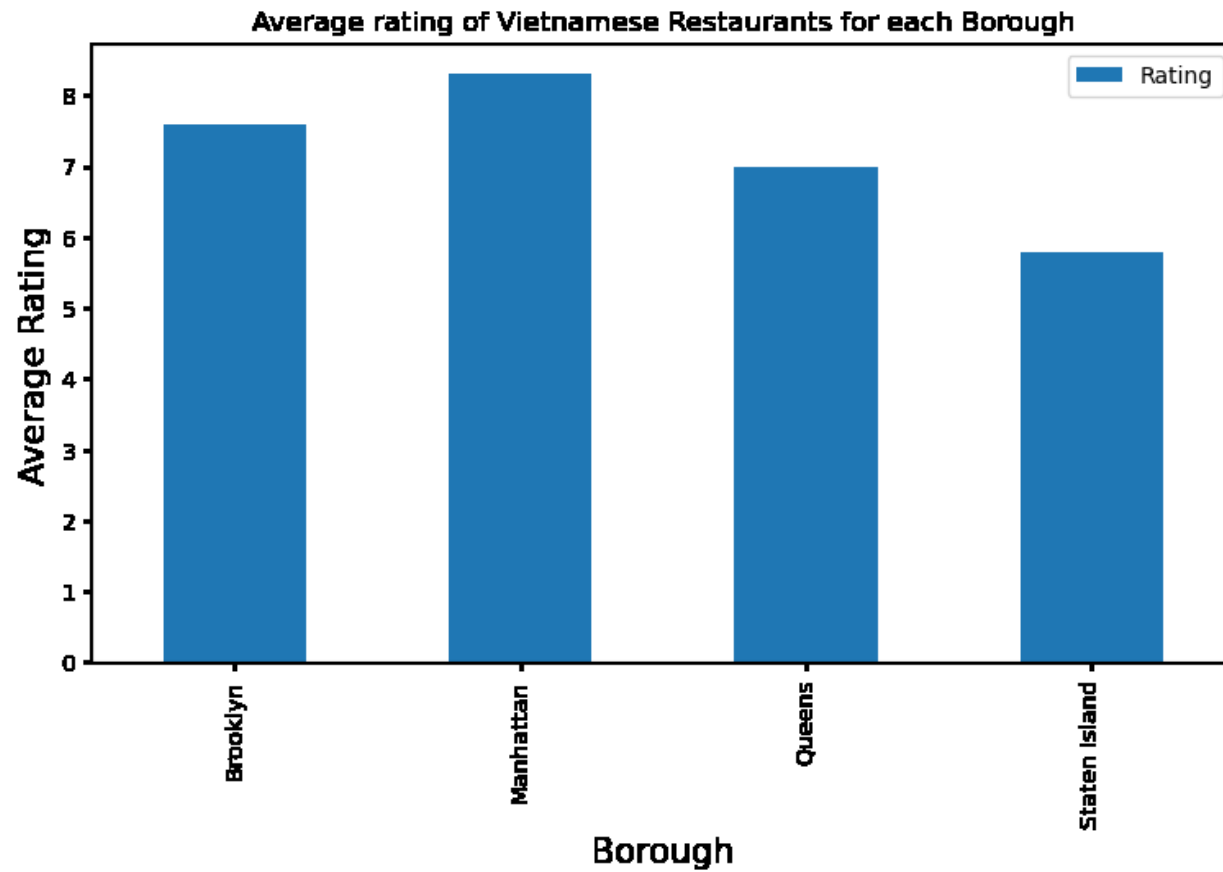
The mentioned steps are in order to answer:

1. What is **best location** in New York City for Vietnamese Cuisine?
2. Which areas have **potential Vietnamese restaurant market**?
3. Which all areas **lack** Vietnamese restaurants?
4. Which is the **best place to stay** if I prefer Vietnamese Cuisine?

## 4. Results



## 4. Results



## 5. Discussion and Conclusion

- Chinatown (Manhattan) is the best neighborhoods for Vietnamese cuisine.
- Manhattan have potential Vietnamese Restaurant Market.
- Staten Island ranks last in average rating of Vietnamese Restaurants.
- Manhattan is the best place to stay if you prefer Vietnamese cuisine.