

# Battle of Neighborhoods – the Best French Restaurants

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## 1 Introduction

This final project explores the best locations for French restaurants throughout the city of New York. New York is a major metropolitan area with more than 8.4 million (Quick Facts, 2018) people living within city limits. With many New York inhabitants reporting French ancestry or appetite appreciation, the need to find and enjoy French cuisine is on the rise. This report explores which neighborhoods and boroughs of New York City have the most as well as the best French restaurants. Additionally, I will attempt to answer the questions "Where should I open a French Restaurant?" and "Where should I stay If I want great French food?"

The topic will appeal to those who enjoy French cuisines as well as those who hold business interests in it.

## 2 Data

### 2.1 Data Source

Data In order to answer the above questions, data on New York City neighborhoods, boroughs to include boundaries, latitude, longitude, restaurants, and restaurant ratings and tips are required.

New York City data containing the neighborhoods and boroughs, latitudes, and longitudes will be obtained from the data source: [https://cocl.us/new\\_york\\_dataset](https://cocl.us/new_york_dataset)

New York City data containing neighborhood boundaries will be obtained from the data source: <https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>

All data related to locations and quality of French restaurants will be obtained via the FourSquare API utilized via the Request library in Python. All data is snapped at date June 5, 2018.

### 2.2 Data Cleaning

Data downloaded or scraped from multiple sources were combined into one table. 0 values are assigned for these restaurants as they may have been recently opened or details does not exist in FourSquare Database.

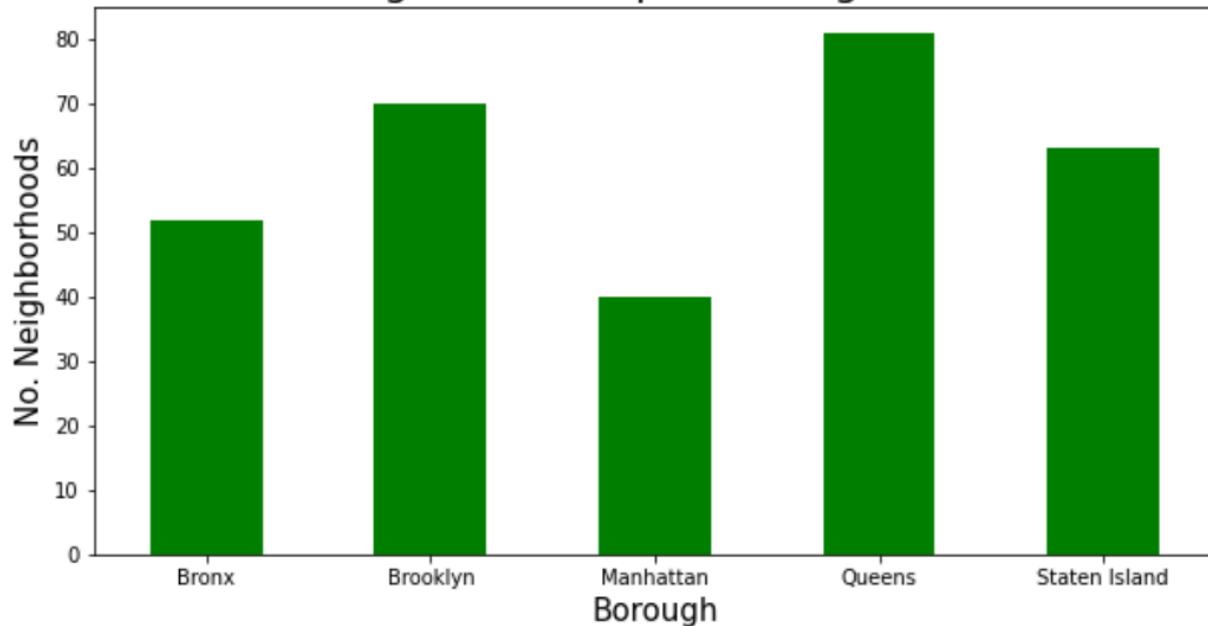
Given the chosen features, data types of 'Likes' and 'Rating' were also changed from object to float64.

## 3 Methodology

### 3.1 Exploratory Data Analysis

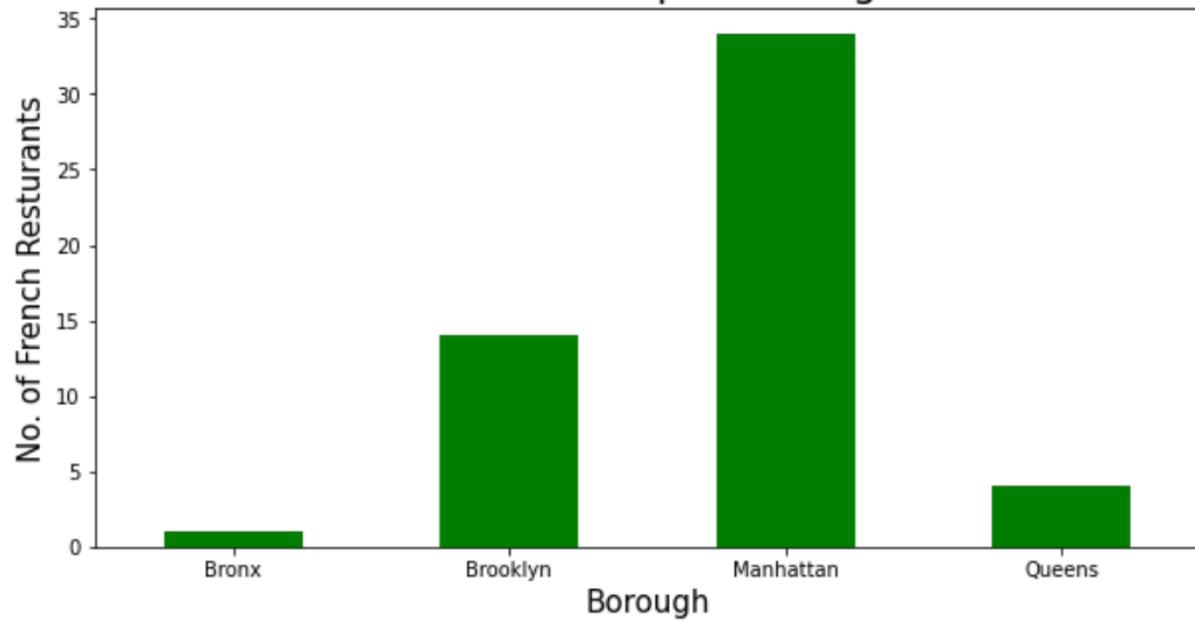
There are 306 neighborhoods in New York City registered in FourSquare on June 5, 2018. Grouped by boroughs, Manhattan consists of the least neighborhoods while Queens contains the maximum number of neighborhoods.

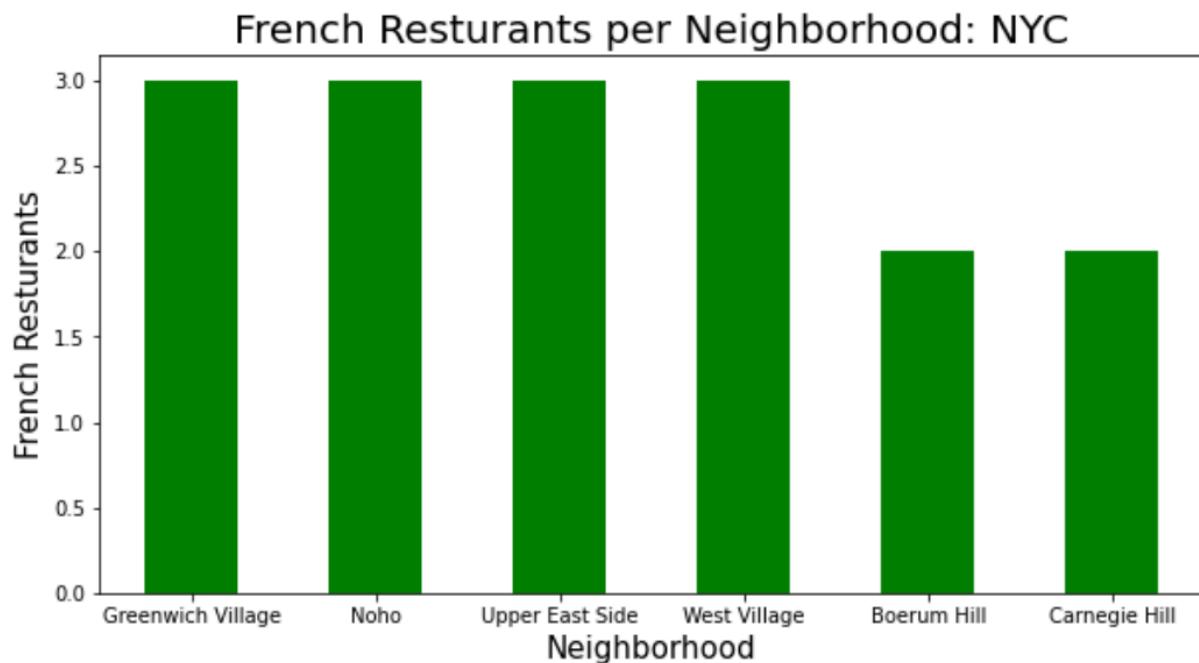
### Neighborhoods per Borough: NYC



53 French restaurants were obtained from FourSquare, and were segmented by boroughs and neighborhoods.

### French Restaurants per Borough: NYC





Although Manhattan had the least number of neighborhoods, it does have the highest number of French restaurants. Additionally, we see how many restaurants the top 6 neighborhoods have. The neighborhood of Greenwich Village, Noho, Upper East Side, and West Village have the highest number of French restaurants of 3 in all of NYC and all are located in the borough of Manhattan.

### 3.2 Formal Analysis

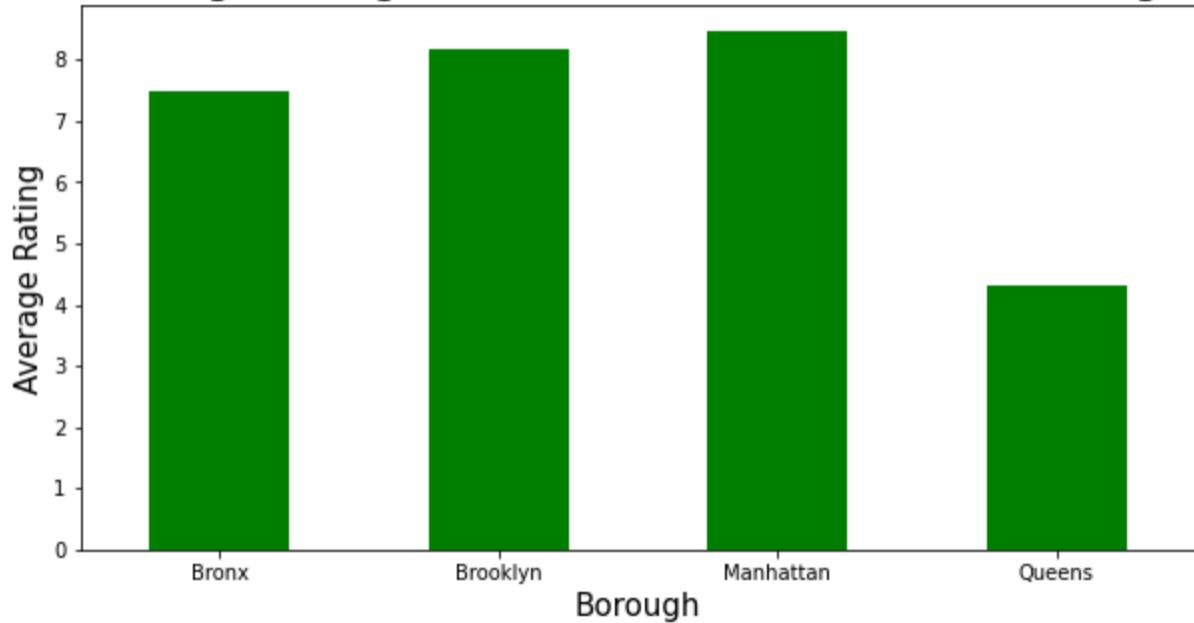
To have a bite of how neighborhoods and boroughs perform in terms of French restaurants, I got the average likes and rating for each neighborhoods and boroughs and sorted in descending orders.

The top 10 neighborhoods with French restaurants ratings are as follows.

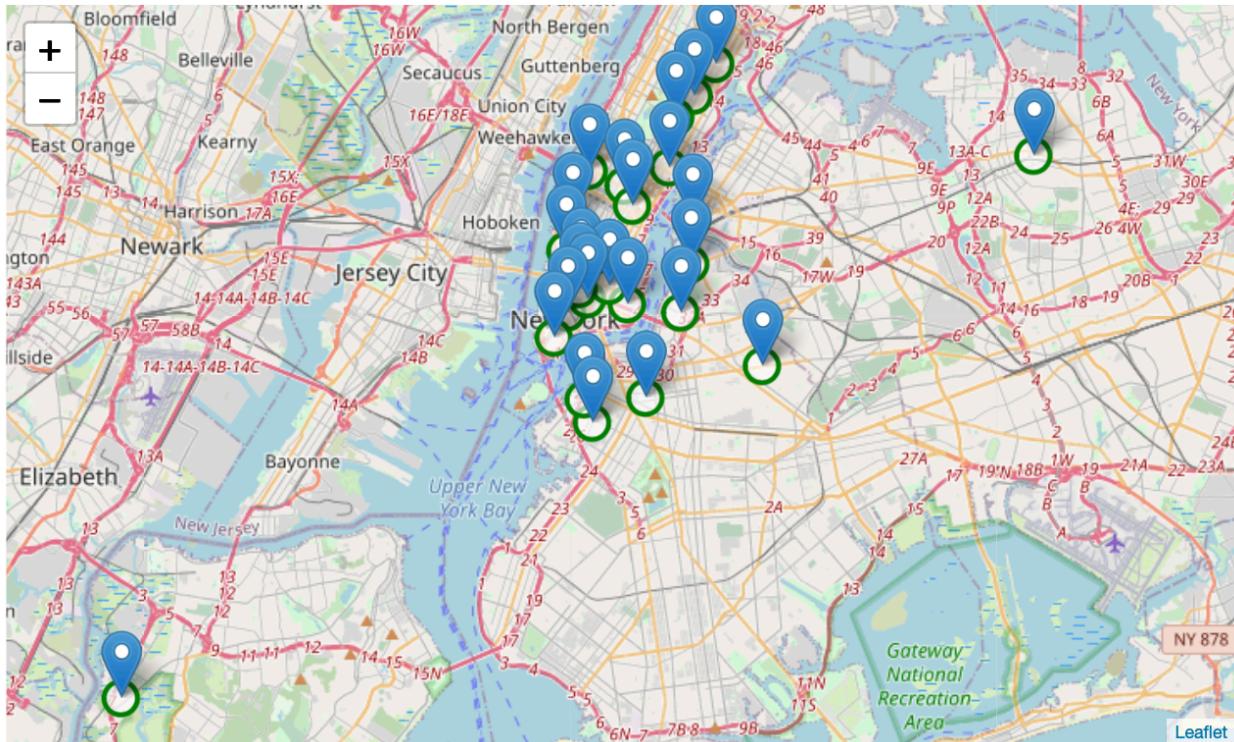
Neighborhood	Average Likes	Average Rating
Soho	395.000000	9.200000
East Harlem	80.000000	9.100000
North Side	569.500000	8.800000
Midtown	154.000000	8.800000
Lower East Side	16.000000	8.800000
Noho	181.333333	8.800000
Little Italy	218.500000	8.750000
Greenwich Village	343.000000	8.733333
West Village	880.000000	8.666667
Hunters Point	116.000000	8.600000

And across the four boroughs that have French restaurants, we have ratings vary.

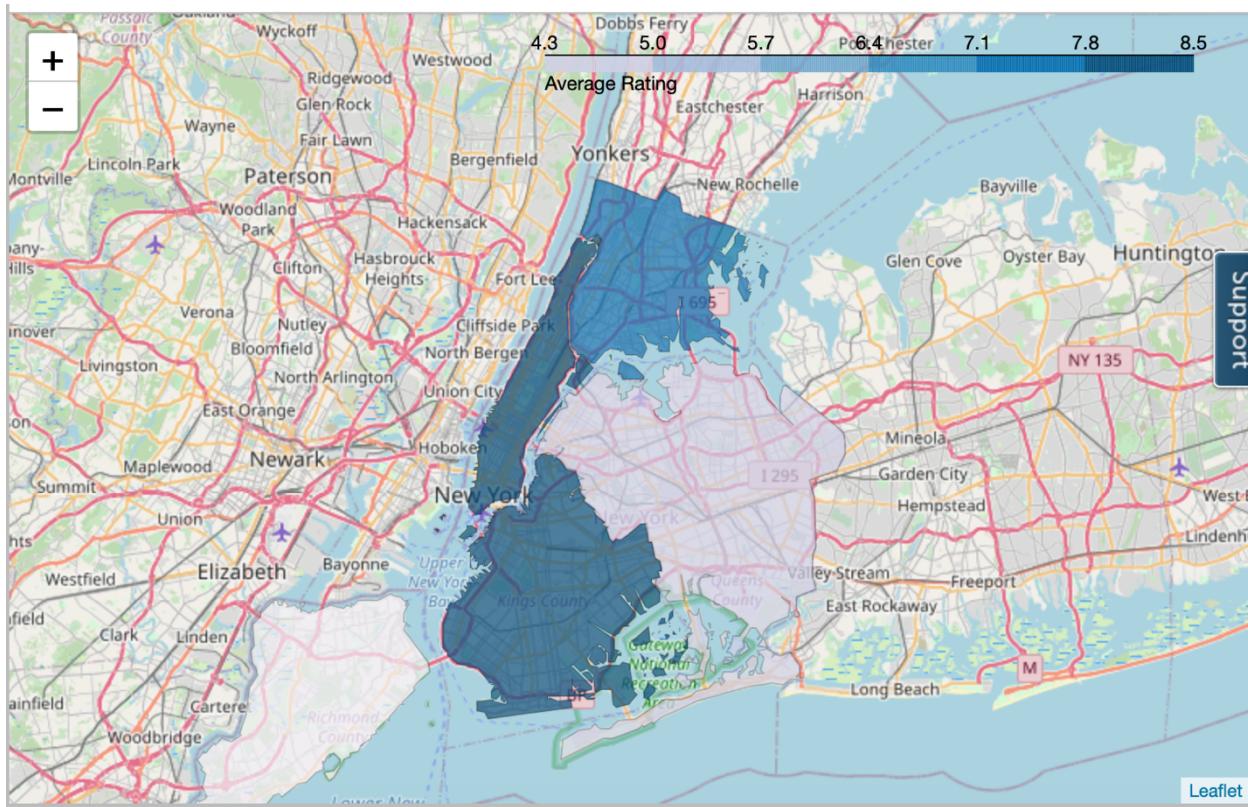
### Average Rating of French Restaurants for Each Borough



We could visually map the French restaurants with rating over 8.



We could also create a choropleth map to visualize boroughs based on average ratings.



## 4 Results

French restaurants in New York are mainly located and most dense in the neighborhood of Manhattan, while Greenwich Village, Noho, Upper East Side, and West Village of Manhattan have three French restaurants each.

In terms of ratings, Manhattan, Brooklyn, and Bronx perform well closely to each other, as Queens shows a significant drop among all four boroughs with French restaurants located. Soho and East Harlem, all from Manhattan, are only two neighborhoods with ratings above 9.

## 5 Discussion

Choose Manhattan to stay and wander around French restaurants there. Besides, Soho and East Harlem should be the go-to choices for enjoying French cuisine as well as business exploration.

In another perspective, aiming at a making a decent French restaurant in Queens may lead to big inflows on account of average low expectations.

## 6 Conclusion

In this study, I extracted data of French restaurants from New York City area and examine neighborhoods and boroughs based on the average ratings and number of likes of French restaurants within. On account of the disparity between regions, recommendations are given to interested people.