New Korean Restaurant in New York City

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March 23, 2019

Introduction

New York City has something for every taste and attracts a huge amount of tourists to visit each year. From incredible art galleries and museums to some of the world's best restaurants, New York's many offerings are well known to most visitors.
JJ International is a South Korean conglomerate holding company headquartered in Seoul. It comprises numerous businesses in various industries of food and food service, pharmaceutics and biotechnology, entertainment and media. The company wants to explore a possibility to open an authentic Korean Restaurant in Manhattan, NY.

Data

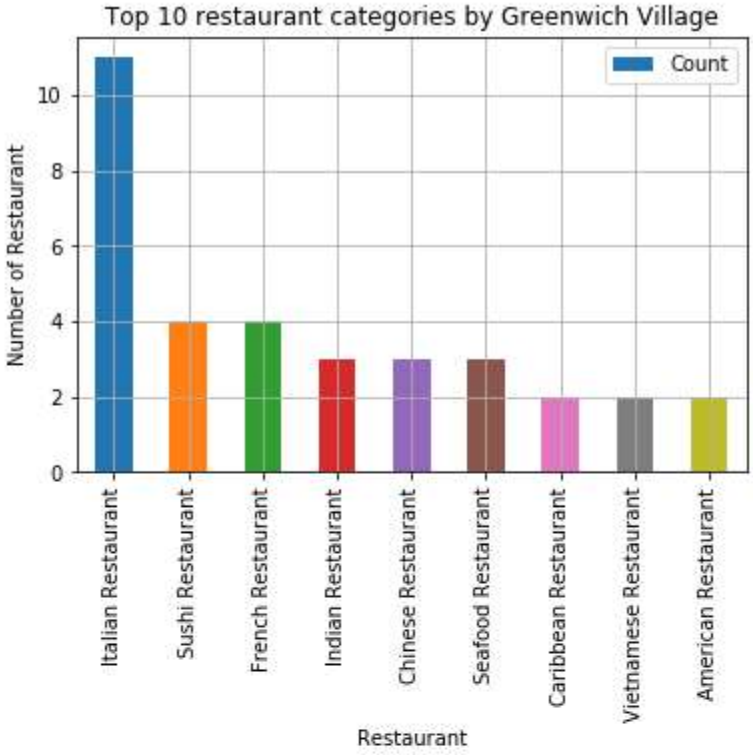
Foursquare API will be used to gather the locations of different restaurant. It provides different types of restaurants in a given area and enables us to analyze the numbers of Asian restaurants, including Korean, in Manhattan, NY.

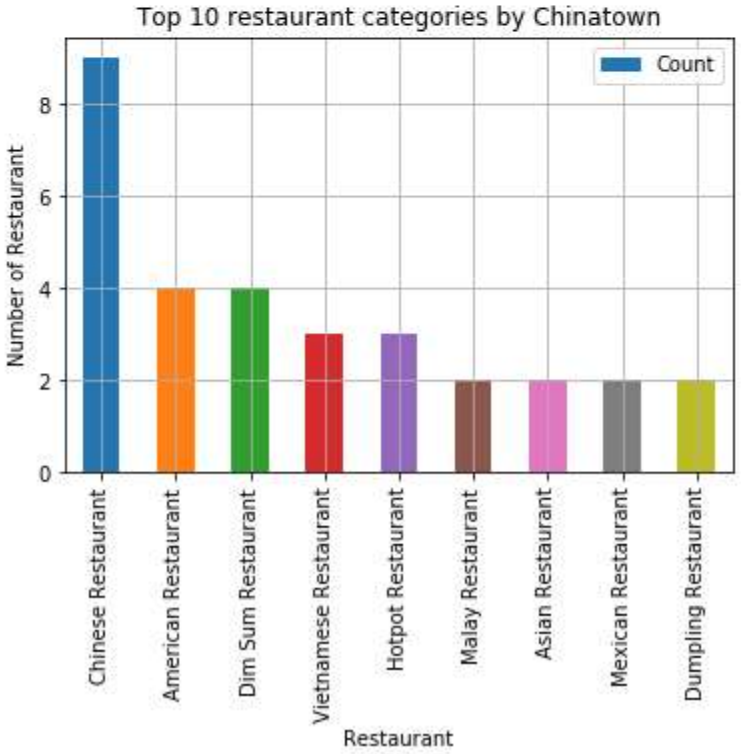
1. list of neighborhoods in New York City
2. location data from geocoding api
3. nearby information from the foursquare api

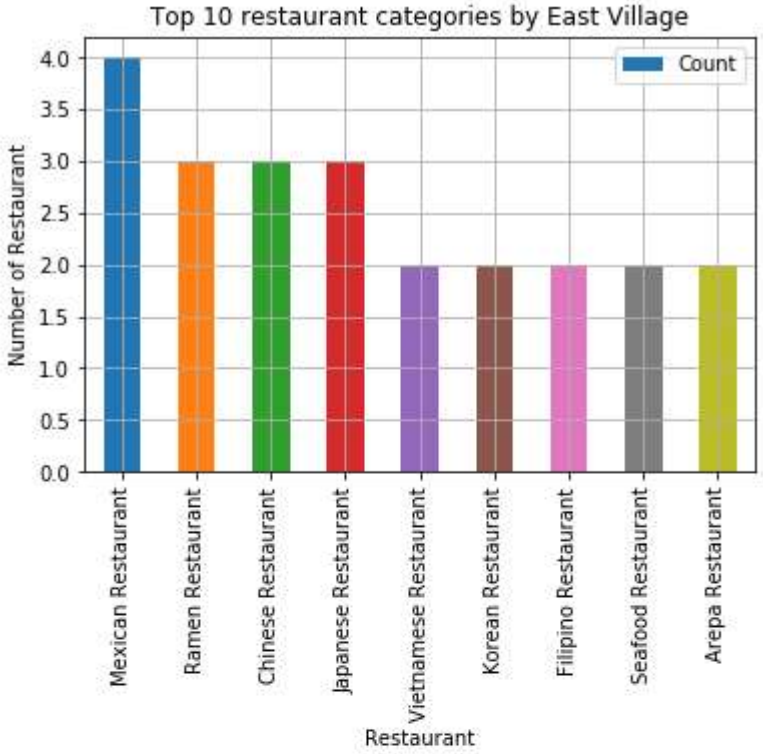
Methodology

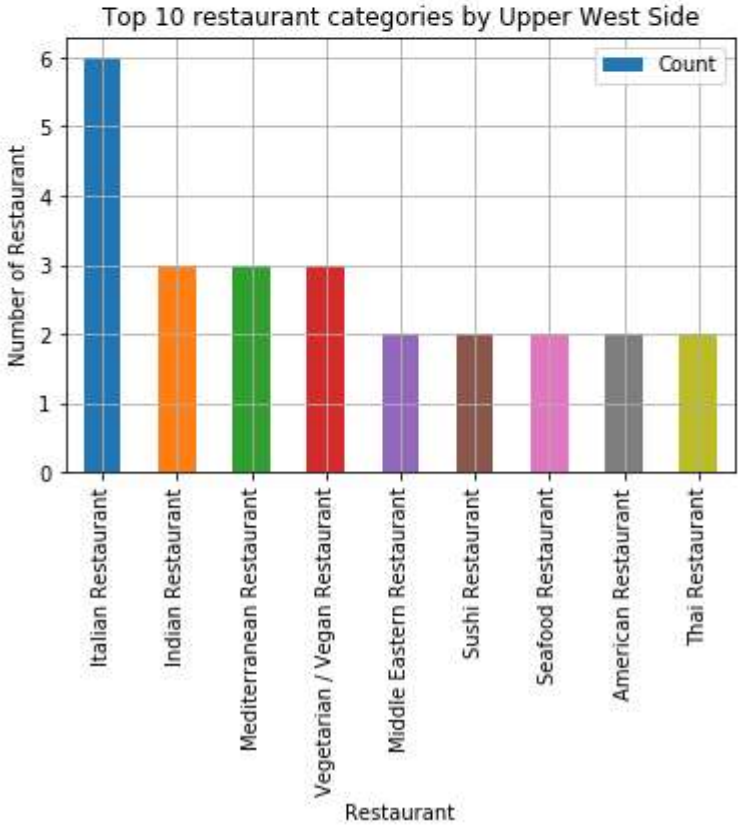
In this report, I will explore the restaurants in Manhattan by segmenting data and conducting descriptive analysis using Panda. Web scraping will be used to download and generate data.
My search will look for areas where there are high number of restaurants while low number of Asian restaurants. i.e. Japanese, Chinese and Korean. The high number of restaurants in the area would suggest popularity among diners. In the mean time, the low number of Asian restaurant in the area is favorable due to lower competition from similar type of restaurants.

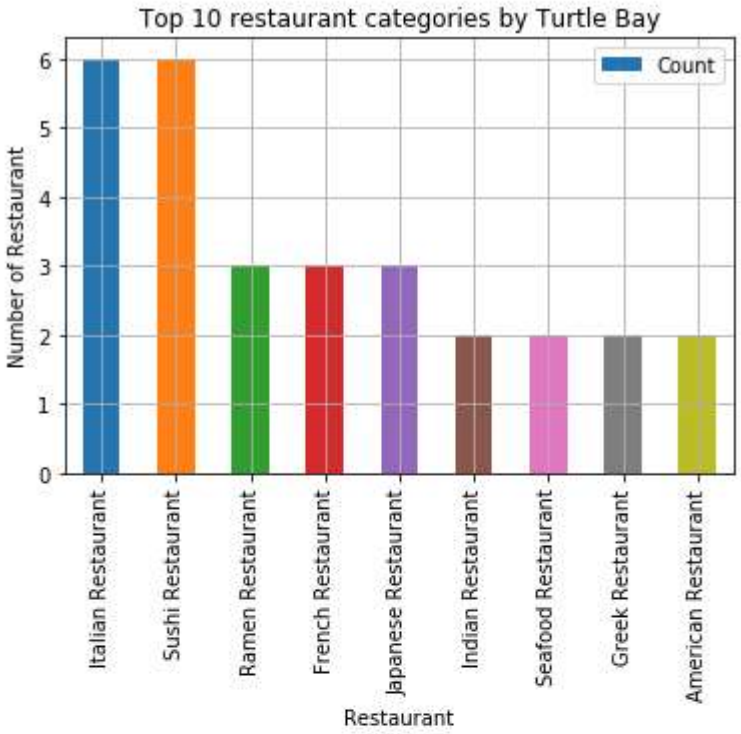
STEP 1: Find the area in which there are high number of restaurants

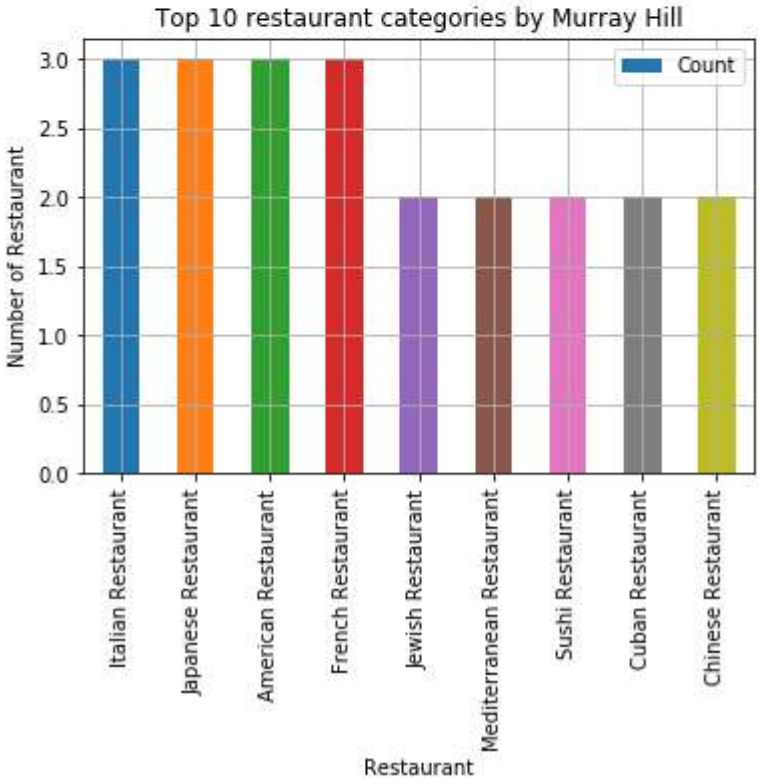


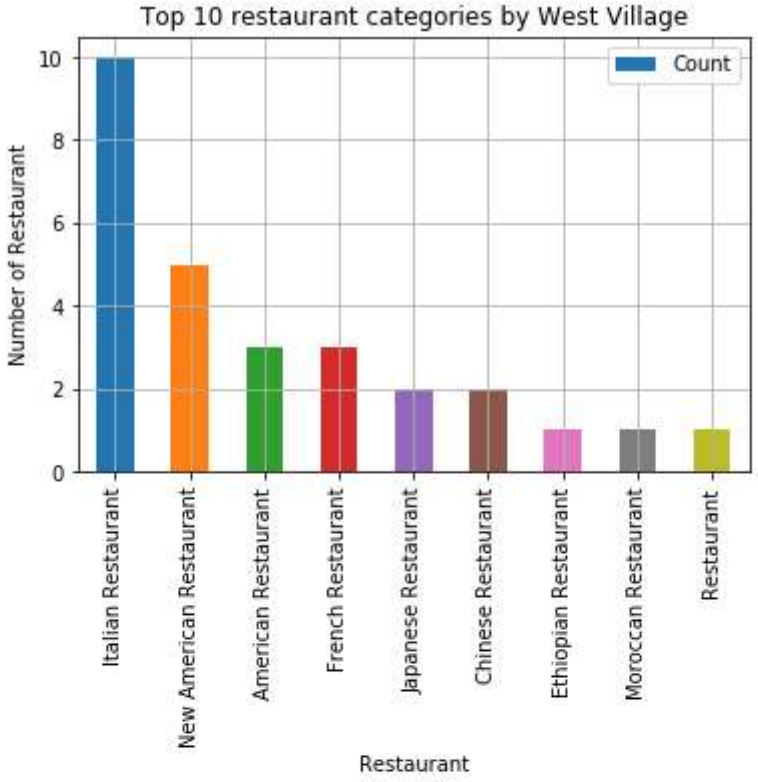


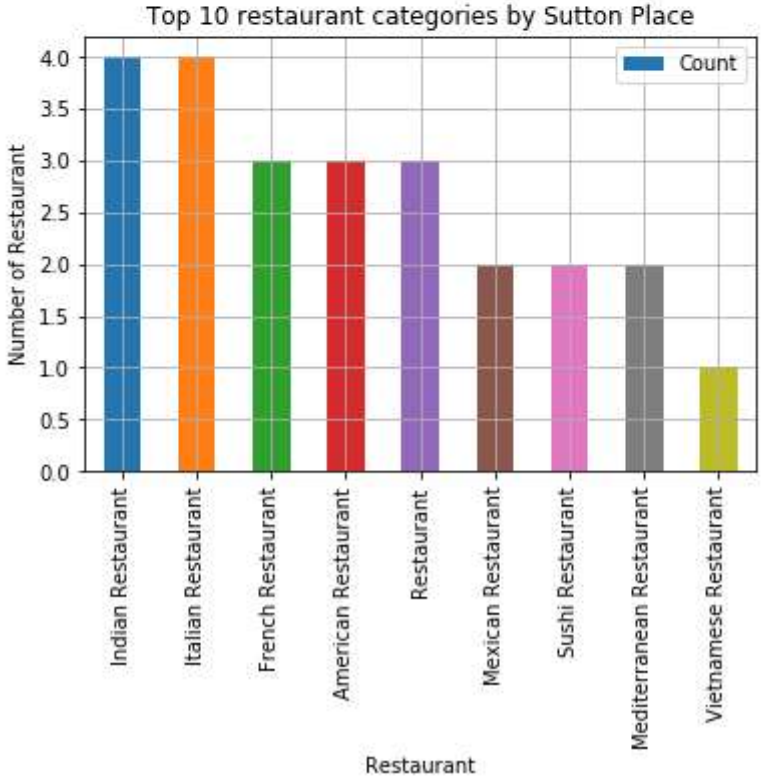

Top 10 restaurant categories by East Village
Count
Number of Restaurant
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
Mexican Restaurant
Ramen Restaurant
Chinese Restaurant
Japanese Restaurant
Vietnamese Restaurant
Korean Restaurant
Filipino Restaurant
Seafood Restaurant
Arepa Restaurant
Restaurant

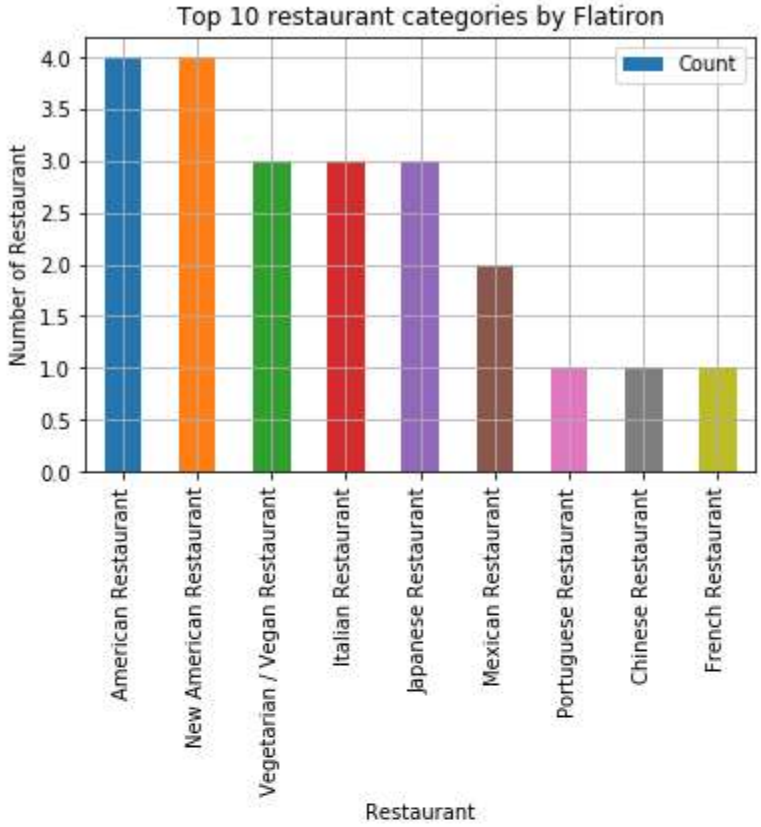

Top 10 restaurant categories by Upper West Side
Count
Number of Restaurant
0
1
2
3
4
5
6
Italian Restaurant
Indian Restaurant
Mediterranean Restaurant
Vegetarian / Vegan Restaurant
Middle Eastern Restaurant
Sushi Restaurant
Seafood Restaurant
American Restaurant
Thai Restaurant
Restaurant

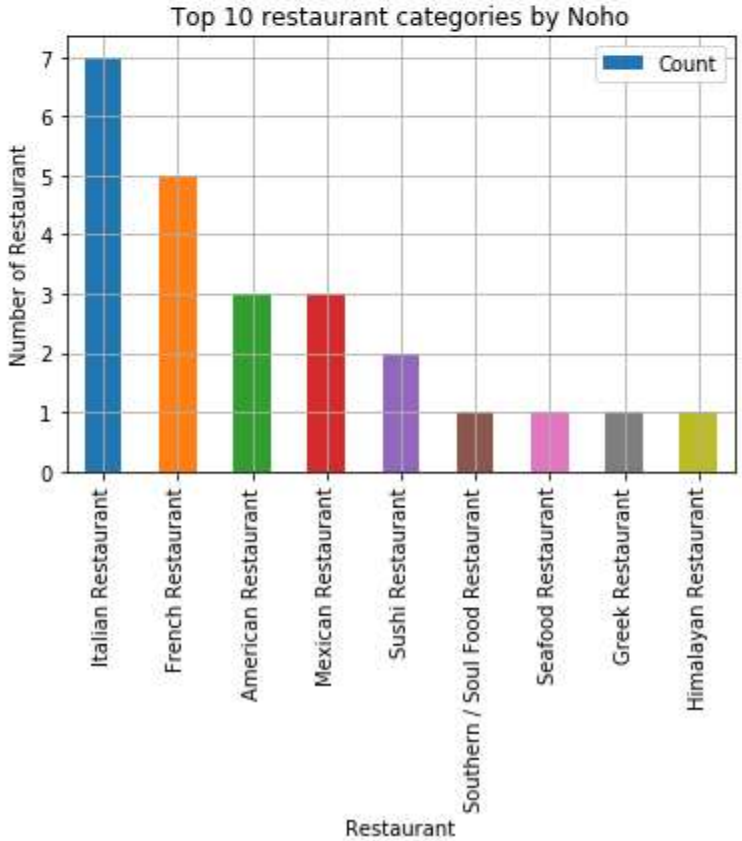

Top 10 restaurant categories by Turtle Bay
Count
Number of Restaurant
0
1
2
3
4
5
6
Italian Restaurant
Sushi Restaurant
Ramen Restaurant
French Restaurant
Japanese Restaurant
Indian Restaurant
Seafood Restaurant
Greek Restaurant
American Restaurant
Restaurant


Top 10 restaurant categories by Murray Hill
Count
Number of Restaurant
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Italian Restaurant
Japanese Restaurant
American Restaurant
French Restaurant
Jewish Restaurant
Mediterranean Restaurant
Sushi Restaurant
Cuban Restaurant
Chinese Restaurant
Restaurant


Top 10 restaurant categories by West Village
Count
Number of Restaurant
0
2
4
6
8
10
Italian Restaurant
New American Restaurant
American Restaurant
French Restaurant
Japanese Restaurant
Chinese Restaurant
Ethiopian Restaurant
Moroccan Restaurant
Restaurant
Restaurant


Top 10 restaurant categories by Sutton Place
Count
Number of Restaurant
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
Indian Restaurant
Italian Restaurant
French Restaurant
American Restaurant
Restaurant
Mexican Restaurant
Sushi Restaurant
Mediterranean Restaurant
Vietnamese Restaurant
Restaurant


Top 10 restaurant categories by Flatiron
Count
Number of Restaurant
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
American Restaurant
New American Restaurant
Vegetarian / Vegan Restaurant
Italian Restaurant
Japanese Restaurant
Mexican Restaurant
Portuguese Restaurant
Chinese Restaurant
French Restaurant
Restaurant


Top 10 restaurant categories by Noho
Count
Number of Restaurant
0
1
2
3
4
5
6
7
Italian Restaurant
French Restaurant
American Restaurant
Mexican Restaurant
Sushi Restaurant
Southern / Soul Food Restaurant
Seafood Restaurant
Greek Restaurant
Himalayan Restaurant
Restaurant

STEP 2: Analyze the result

From the results set, we are going to define Asian restaurants with different names as for the grouping purpose. The following restaurants will be considered as part of Asian Restaurant Group.

- •Sushi Restaurant
- •Chinease Restaurant
- •Japanese Restaurant
- •Korean Restaurant
- •Vietnamese
- •Dim Sum Restaurant
- •Hotpot Restaurant
- •Dumpling Restaurant
- •Ramen Restaurant
- •Filipino Restaurant
- •Thai Restaurant

The identification of Asian Restaurant Group is important as this group will be used as a base for the composition of competitors in the neighborhood. Basically, the more Asian restaurants means more competition.
The competition is calculated with the following : Asian Restaurant / Total Restaurant.
The below data display the restaurants in the order from the the lowest competition based on the calculation.

Neighborhood	Total	Asian Restaurant	Non-Asian Restaurant	Competition
Noho	31	2	22	0.0645
Sutton Place	32	3	21	0.0938
West Village	35	4	24	0.1143
Flatiron	31	4	18	0.1290
Murray Hill	37	7	15	0.1892
Greenwich Village	45	9	25	0.2000
Turtle Bay	38	12	17	0.3158
East Village	41	15	8	0.3659
Upper West Side	38	21	4	0.5526
Chinatown	41	25	6	0.6098

Results

My analysis has returned the results of the location with lowest competition among top 10 popular location for restaurants in Manhattan. i.e. Among the top 10 neighborhoods, Noho has the lowest competition calculated value with 0.0645

Discussion

The analysis can be tweaked a little more to actually pinpoint to the most optimum location with lowest competition by adding more factors in the calculation. i.e. rental cost, average income, close to shopping, public transportation However, there are logistical and sociological factors that it may not be able to predict in every case

Conclusion

As per the analysis, The best location to open a Korean restaurant would be Noho followed by Sutton Place and West Village based on the popularity and number of Asian restaurants in the neighborhood.