Capstone – The Battle of Neighborhood

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Introduction

This final project explores the best locations for Indian restaurants throughout the city of New York. New York is a major metropolitan area with more than 8.4 million people living within city limits. Additionally, I will attempt to answer the questions "Where should I open an Indian Restaurant?" and "Where should I stay If I want great Indian food?"

Data

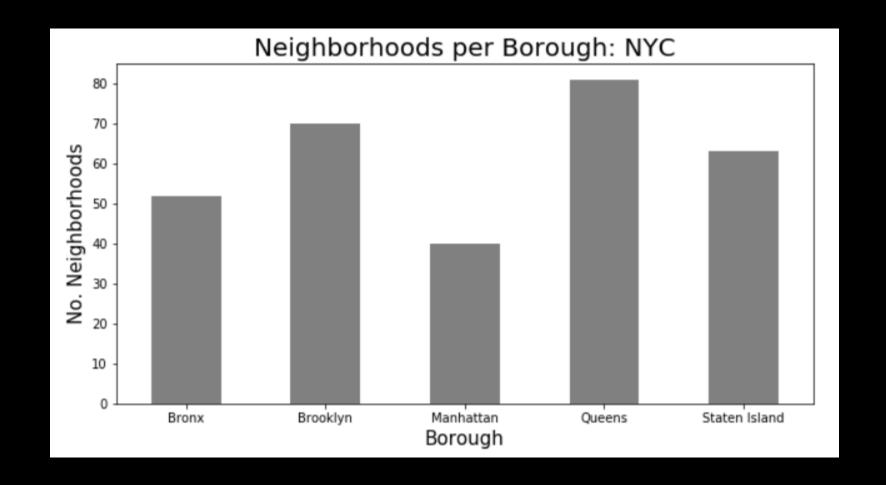
- In order to answer the above questions, data on New York City neighborhoods, boroughs to include boundaries, latitude, longitude, restaurants, and restaurant ratings and tips are required.
- New York City data containing the neighborhoods and boroughs, latitudes, and longitudes will be obtained from the data source: https://cocl.us/new_york_dataset
- 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 Indian restaurants will be obtained via the FourSquare API utilized via the Request library in Python.

Methodology

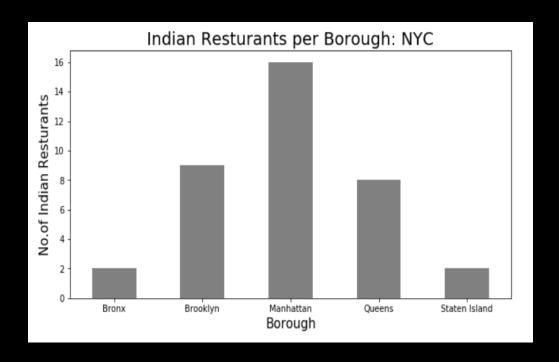
- Data will be collected from https://cocl.us/new_york_dataset and cleaned and processed into a dataframe.
- FourSquare be used to locate all venues and then filtered by Indian restaurants. Ratings, tips, and likes by users will be counted and added to the dataframe.
- Data will be sorted based on rankings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

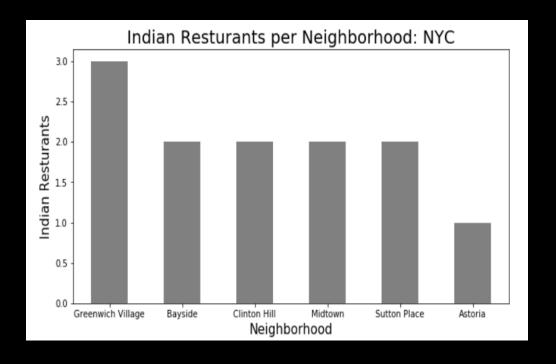
Problem Statement

- What is / are the best location(s) for Indian cuisine in New York City?
- In what Neighborhood and/or borough should I open an Indian restaurant to have the best chance of being successful?
- Where would I go in New York City to have the best Indian food?



Graph to show total Indian restaurant per borough and per nrighborhood.





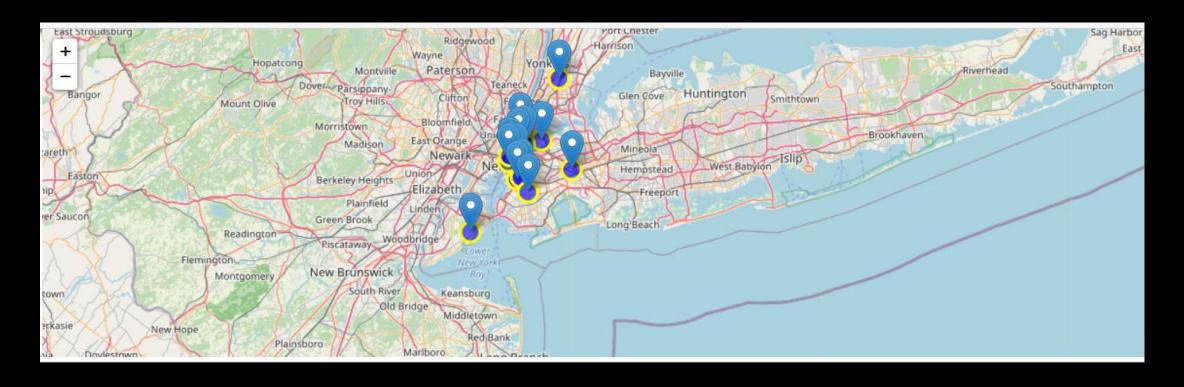
List of top rated Indian restaurants

	Neighborhood	Average Rating
24	Tribeca	8.900000
7	Fort Greene	8.800000
20	Prospect Lefferts Gardens	8.600000
28	West Village	8.600000
10	Greenwich Village	8.566667
19	Noho	8.500000
23	Sutton Place	8.400000
17	Midtown	8.350000
0	Astoria	8.300000
29	Woodlawn	8.100000

Average rating per Borough

	Borough	Average Rating
2	Manhattan	8.237500
1	Brooklyn	7.422222
0	Bronx	7.000000
3	Queens	6.600000
4	Staten Island	4.050000

Map with most rated restaurants



Results / Conclusion

- Manhattan and Brooklyn have the best rated Indian restaurants on average.
- Staten Island and The Bronx have the least amount of Indian restaurants per borough.
- However, Greenwich Village of the Manhattan is the neighborhood in all of NYC with the most Indian Restaurants. Despite Manhattan having the least number of neighborhoods in all five boroughs, it has the most Indian restaurants. Based on this information, I would state that Manhattan and Brooklyn are the best locations for Indian cuisine in NYC. To have the best shot of success, I would open an Indian restaurant in Brooklyn. Brooklyn has multiple neighborhoods with average ratings exceeding 7.0 of a scale of 1.0 to 10.0 and has the least number of Indian restaurants making competition easier than in other boroughs.
- Finally, I would go to Tamarind TriBeCa in Manhattan for the best Indian food based on 590 likes with 8.9 rating or The Kati Roll Company in Manhattan with 834 likes.