Best place to open an Indian Restaurant in New York <u>Aparajita Mathur</u> June 10, 2020

1. Introduction

1.1. Background

Indians constitute one of the largest and fastest growing ethnicities in New York City in the United States. Indian cuisine is very popular among Asian Indians in the United States. The growth in the New York City metropolitan region's Asian Indian populace has been accompanied by growth in the number of Indian restaurants. Therefore, this report explores which neighborhoods and boroughs of New York City have the most as well as the best Indian restaurants. This analysis can be used to select the best location in New York to open Indian Restaurant based on the location density of the current Indian Restaurants and their reviews by users. For example, this analysis can be used to target locations with lesser competition and more concentration of Indian community.

1.2. Problem

Data that might contribute to determining best places to open a restaurant is higher demand and less competition. It can also be used to determine where to look for restaurants if someone wants great Indian food. The project aims at determining this by using metrics such as restaurant user ratings and likes and Indian Restaurant location metrics.

1.3. Interest

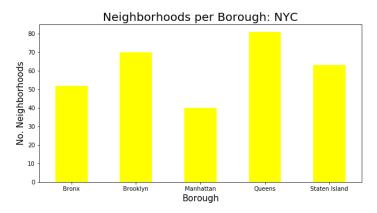
Any person who wants to open an Indian restaurant in New York can utilize this analysis to select the best location. This analysis can also be used to suggest the best place to stay in order to find the best Indian Restaurant to eat nearby.

2. Data acquisition and cleaning

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. The data features include Borough, Neighborhood, Latitude and Longitude. The data for locations and ratings and user likes of Indian restaurants will be obtained from the FourSquare API: https://foursquare.com/developers/apps. The data features include Name of the Restaurants, its Neighborhood, Borough, Likes, Ratings and Tips as in Foursquare

3. Exploratory Data Analysis

3.1. The number of neighborhoods per borough were plotted. This gave an estimation of the most number of neighborhoods per borough were in Queens.

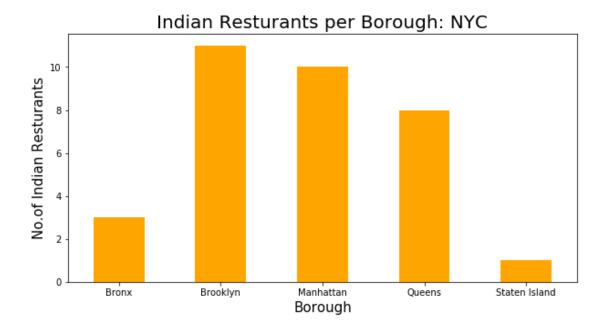


3.2. The population of Indian Community in New York Neighborhoods were extracted from https://en.wikipedia.org/wiki/Indians_in_the_New_York_City_metropolitan_region to be as follows. This shows maximum Indian Communities settled in Queens.

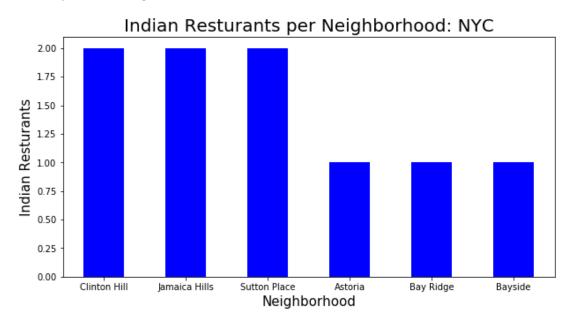
| | maian Americans |
|---------------|-----------------|
| Borough | |
| Queens | 144,896 |
| Brooklyn | 25,270 |
| Manhattan | 24,359 |
| The Bronx | 16,748 |
| Staten Island | 6,646 |
| Total (2014) | 227,994 |

Indian Americans

3.3. Further the number of Indian Restaurants were plotted per borough in NYC. This shows that the maximum number of Indian Restaurants were in Brooklyn with the second highest number of Indian population.



3.4. Indian Restaurants per neighborhood were plotted is found to be as follows. Clinton Hills in Brooklyn has the largest number of Indian Restaurants



Based on the data from Foursquare, we get the restaurants with highest Ratings and maximum likes as follows:

3.5. Based on the data from Foursquare, we get the restaurants with highest Ratings and Maximum likes as follows:

Highest Rating : Dosa Royale, in Fort Greene, Brooklyn Most Likes: Tamarind Tribeca, in Tribeca, Manhattan Borough Manhattan
Neighborhood Tribeca
ID 4bbb9dbded7776b0e1ad3e51
Name Tamarind TriBeCa
Likes 590
Rating 8.6
Tips 148

Name: 21, dtype: object

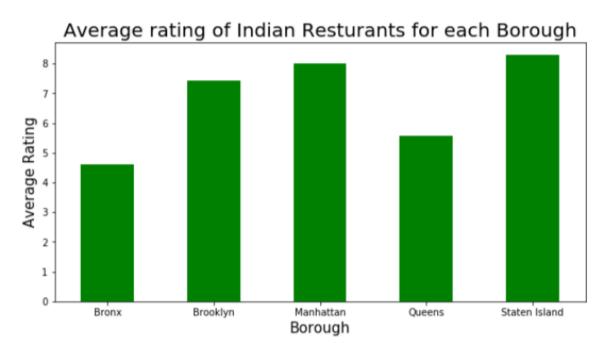
Borough Brooklyn
Neighborhood Fort Greene
ID 57596dad498e732300496b23
Name Dosa Royale
Likes 77
Rating 8.8
Tips 22

Name: 8, dtype: object

3.6. The average rating per neighborhood and borough is as follows:

Neighborhood Average Rating Fort Greene 8.8 Prospect Lefferts Gardens 8.7 Tribeca 8.6 Sutton Place 8.4 North Side 8.4 New Dorp 8.3 Greenwich Village 8.2 8.2 Bayside Washington Heights 8.0 Boerum Hill 8.0

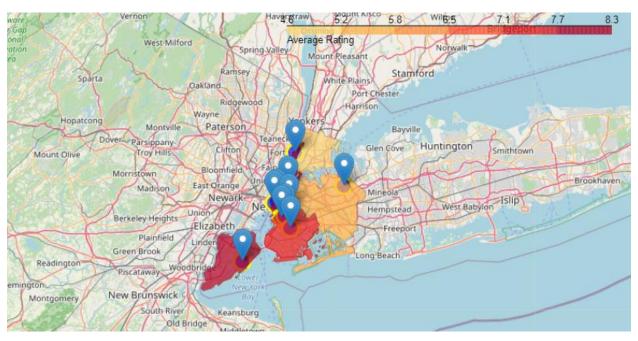
| Borough | Average Rating |
|---------------|----------------|
| Staten Island | 8.300000 |
| Manhattan | 8.000000 |
| Brooklyn | 7.445455 |
| Queens | 5.587500 |
| Bronx | 4.600000 |



3.7. The average Rating greater than 8.0 is shown as follows:

| Neighborhood | Average Rating |
|---------------------------|----------------|
| Bayside | 8.2 |
| Boerum Hill | 8.0 |
| Fort Greene | 8.8 |
| Greenwich Village | 8.2 |
| New Dorp | 8.3 |
| North Side | 8.4 |
| Prospect Lefferts Gardens | 8.7 |
| Sutton Place | 8.4 |
| Tribeca | 8.6 |
| Washington Heights | 8.0 |

3.8. Finally we visualize the map based on rating:



4. Conclusions

Dosa Royale and Tamarind Tribeca have the best rated Indian restaurants on average. Staten Island has the least amount of Indian restaurants per borough. However, of note, Clinton Hills of Brooklyn is the neighborhood in all of NYC with the most Indian Restaurants. Despite Manhattan having the least numb er of neighborhoods in all five boroughs, it has the second most Indian restaurants and the restaurant wi th most likes. Based on this information, I would state that Manhattan and Staten Island are the best loc

| a scale of 1.0 to 10.0 | nd. Staten Island has r and has the least num y, I would suggest to g | multiple neighborh iber of Indian rest | noods with averag aurants making co | e ratings exceedin mpetition easier t | g 8.0 of than in o |
|------------------------|---|---|--|--|-----------------------|
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