The Battle of Neighbourhoods

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Introduction

The general tendency of Human life is change and people often change their place of stay. It is also very important for them that they select a good and a safe place to live. But most of the times this movement is because they select an inappropriate place to live or get wrong information. This leads to an unhappy and a discomforting life.

To avoid any of these, a proper research has to be done before they shift to a place. Consider the following factors while selecting a new place to live so that you don't end up wasting your valuable money and time making a move you will end up regretting there. Lots of people migrate to New York City like almost 40% of population include immigrants and its one of the growing metropolis in the world.

As many as 800 languages are spoken in New York, making it the most linguistically diverse city in the world. English remains the most widely spoken language, although there are areas in the outer boroughs in which up to 25% of people speak English as an alternate language, and/or have limited or no English language fluency. English is least spoken in neighbourhoods such as Flushing, Sunset Park, and Corona.

Problem

Here we are looking for:

- 1. Areas with Indian Cuisine Food.
- 2. Areas which have potential to have more Indian cuisine restaurants
- 3. Areas which are preferable to stay for Indian Cuisine Restaurants.

Data

The data which we are going to use is:

 New York City data that contains list Boroughs, Neighborhoods along with their latitude and longitude.(https://cocl.us/new_york_dataset)

This is dataset about various neighbourhoods of New York City.

- Indian restaurant in each neighbourhood of New York City.(FOURSQUARE API) We use this API for getting map data
- GeoSpace data(<u>https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-i8zm</u>)

This dataset is useful for getting all borough boundaries.

```
In [4]: newyork data
Out[4]: {'type': 'FeatureCollection',
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           { 'type': 'Feature',
```

Method

- We collect all data from New York City dataset and using foursquare API we collect all venues of all neighbourhoods.
- Then select all Indian Restaurants.
- We get all tips, ratings from foursquare API
- Use the data and sort out the average ratings, likes and tips from all boroughs and neighbourhoods.

Cleaning Data

We remove all the Category tags and other information regarding the restaurants and join them with their location coordinates.

Data Visualisation

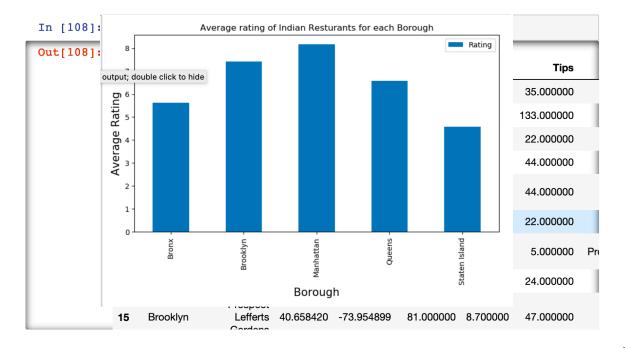
We look into all the data obtained from venues using the Foursquare API and then we plot the count plot of all restaurants and mean of all the restaurants' rating.

We plot all the restaurants in New York using Folium and highlight the areas with good rating with chloropeth maps of folium.

Results

On performing the necessary operations we found that

- Queens, Brooklyn and Manhattan have the best user ratings
- Manhattan has highest Likes and is more likely to be a good place for setting new Indian Cuisine Restaurants



•Staten

Islands has the least average ratings for Indian Restaurants

In [108]:	boro	_stats.s	ort_values	['Rating	j'],ascend	ding =Fals	∌)		
	70	DIOOKIYII	LIASIIIUS	40.040320	-10.040111	1.500000	J. 4 JUUUU	1.000000	
	58	Queens	Jamaica Estates	40.716805	-73.787227	3.333333	2.433333	2.000000	
	68	Staten Island	Emerson Hill	40.606794	-74.097762	0.000000	0.000000	0.000000	Er
	51	Queens	Bellerose	40.728573	-73.720128	0.000000	0.000000	0.000000	
	48	Queens	South Ozone Park	40.668550	-73.809865	0.000000	0.000000	0.000000	Sc
	47	Queens	Ozone Park	40.680708	-73.843203	0.000000	0.000000	0.000000	
	52	Queens	Kew Gardens Hills	40.722578	-73.820878	0.000000	0.000000	0.000000	Ke
	60	Queens	Bellaire	40.733014	-73.738892	0.000000	0.000000	0.000000	
	1	Bronx	Williamsbridge	40.881039	-73.857446	0.000000	0.000000	0.000000	
	67	Staten Island	Concord	40.604473	-74.084024	0.000000	0.000000	0.000000	

• Manhattan,Queens are the best boroughs to stay and Queens has the maximum number of Indian Restaurants.