Coursera Capstone
IBM Applied Data Science Capstone

Opening an Indian Restaurant in New York City

Introduction

New York City's demographics show that it is a large and ethnically diverse metropolis. It is the largest city in the United States with a long history of international immigration. New York City was home to nearly 8.5 million people in 2014, accounting for over 40% of the population of New York State and a slightly lower percentage of the New York metropolitan area, home to approximately 23.6 million. Over the last decade the city has been growing faster than the region. The New York region continues to be by far the leading metropolitan gateway for legal immigrants admitted into the United States.

As we know New York is the port of entry for those who come with dreams it is one of the most densely populated immigrant residential areas.There are 800 languages spoken in New York, making it the most linguistically diverse city in the world.

With its diverse culture , comes diverse food items. There are many restaurants in New York City, each belonging to different categories like Chinese , Indian , French etc.

So as part of this project , we will list and visualise all major parts of New York City that has great Indian restaurants.

Business Problem

Our goal of this project will be to analyze and identify the best location in New York to open an Indian Restaurants or finding a best place in New York if you want to enjoy the food in great Indian restaurants.We will be using data science methodology and instruments such as Data Analysis and Visualization.

Data

❖ Data required

- List of Boroughs and Neighborhoods of New York city
- Latitude and longitude coordinates of those neighborhoods
- Venue data related to restaurants

❖ Sources of data

- Open source dataset of New York : https://cocl.us/new_york_dataset
- Geocoder package for longitude and latitude coordinates
- Foursquare API venue data

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 Python libraries.
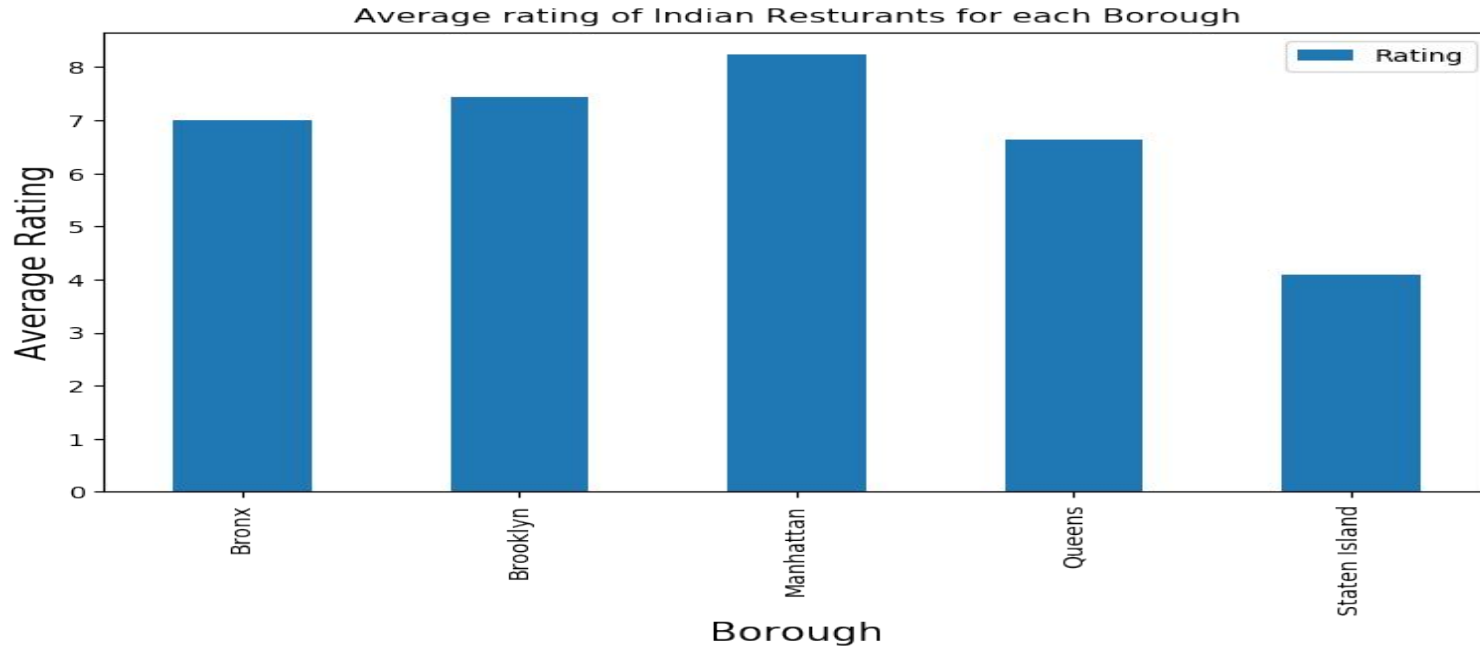
Results

Based on borough

Manhattan and Brooklyn has the highest number of Indian restaurants comparing to other boroughs.
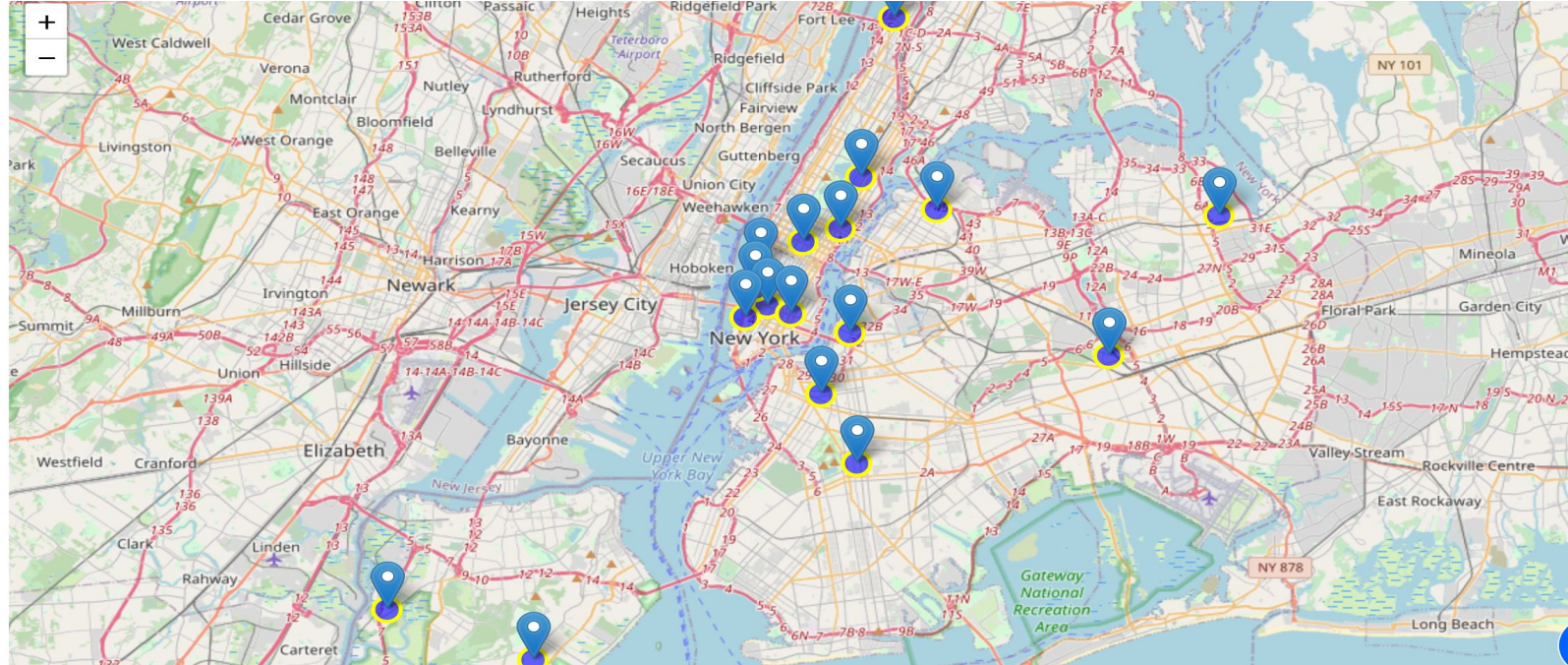

Number of Indian Resturants for each Borough in New York City

Based on average

Manhattan and Brooklyn are the two boroughs that have the highest average rating for Indian restaurants .

Average rating of Indian Resturants for each Borough

Identifying the neighborhoods

The two neighborhoods that has good ratings in Brooklyn are Fort greene and Prospect lefferts gardens

Analyzing section

❖ Based on the result of our analysis Manhattan and Brooklyn are the best location for Indian cuisine in NYC.

❖ Brooklyn is more a promising place to open a new Indian restaurant in NYC.

❖ Fort greene and Prospect lefferts gardens are the two best neighborhood in Brooklyn to open a new Indian Restaurant.

Conclusion

1. Where in the city of NY should one open a new Indian restaurant?

   Borough-Brooklyn

   Neighborhoods-Fort greene and Prospect lefferts gardens

2. Which is the best rated Indian restaurant in NYC?

   KATI ROLL COMPANY in Manhattan

The findings of this project may be used in real life to better understand the advantages and disadvantages of various NY neighborhoods or boroughs in terms of opening a new Indian restaurants.