

THE BATTLE OF NEIGHBORHOODS IN NEW YORK CITY

Capstone project

INTRODUCTION

The City of New York, is the one of the most famous cities in the world. It is diverse in culture. It provides lot of business oppourtunities and business friendly environment. It has attracted many different players into the market. The city is a major center for banking and finance, retailing, world trade, transportation, tourism, real estate, new media, traditional media, advertising, legal services, accountancy, insurance, theater, fashion, and the arts in the United States. Apart from that, the city is famous for the myriad of cuisines it offers.

They say 'if you make it here, you can make it anywhere'. Our aim for this project would be to predict what borough of New York must one choose if they were to open their own restaurant.

PARAMETERS TO CONSIDER

- 1. Population
- 2. Farmers Markets, Wholesale markets etc nearby so that the ingredients can be purchased?
- 3. Is there any landmark nearby i.e. Timesquare, Central Park
- 4. Competitors
- 5. Cuisines
- 6. Segmentation of the Borough
- 7. Unexplored/Sparse areas

DATASETS

We will be using Dataset the below datasets for analysing NYC.
□ https://geo.nyu.edu/catalog/nyu_2451_34572
□ https://data.cityofnewyork.us/dataset/DOHMH-Farmers-Markets-and-Food-Boxes/8vwk-6iz2 Website-https://www.grownyc.org/greenmarketco/foodbox
□ https://en.wikipedia.org/wiki/New_York_City https://en.wikipedia.org/wiki/Economy_of_New_York_City https://en.wikipedia.org/wiki/Portal:New_York_City https://en.wikipedia.org/wiki/Cuisine_of_New_York_City
☐ Foursquare API will also be leveraged

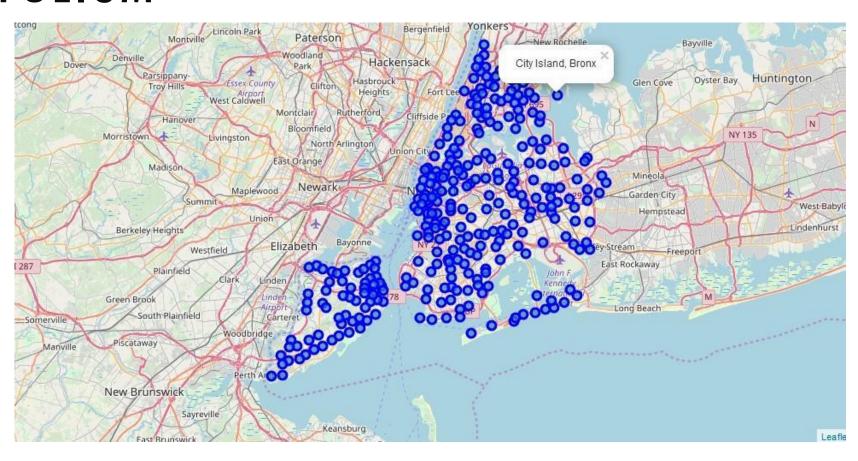
BUSINESS UNDERSTANDING

Our main goal is to get optimum location for new restaurant business in New York City for XYZ Company.

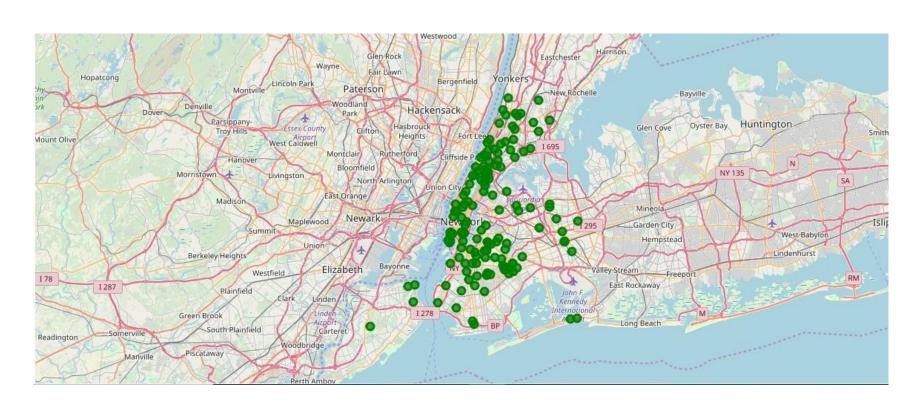
ANALYTIC APPROACH

New York city neighbourhood has a total of 5 boroughs and 306 neighborhoods. In this project first part is clustering of Manhattan and Brooklyn. And second part is clustering of Bronx, Queens and Staten Island. This is done because of the following Exploratory data analysis.

NYC NEIGHBORHOOD VISUALIZATION USING FOLIUM



VISUALIZATION OF MARKETS FOR SUPPLY OF PRODUCTS

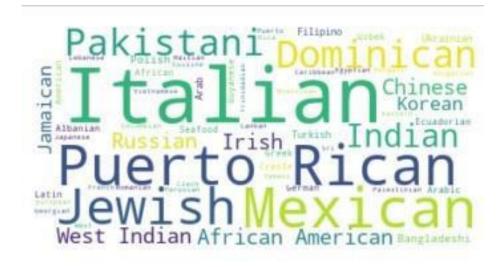


POPULATION INSIGHTS

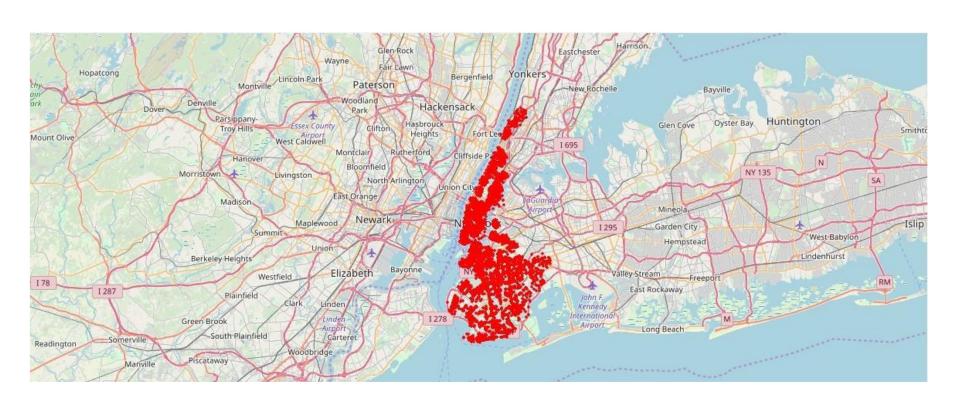
□ Manhattan is the geographically smallest and most densely populated borough.
 □ Manhattan's population density of 72,033 people per square mile (27,812/km²) in 2015 makes it the highest of any county in the United States and higher than the density of any individual American city.
 □ Brooklyn on the western tip of Long Island, is the city's most populous borough.
 □ Queens on Long Island north and east of Brooklyn, is geographically the largest borough.

CUISINE INSIGHTS

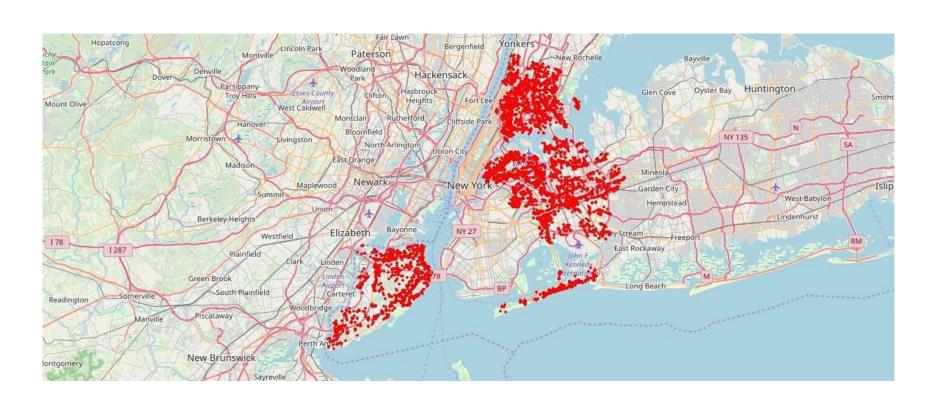
Most Preferred Food in New York City —Italian, Purto Rican, Mexican, Jewish, Indian, Pakistani & Dominican.



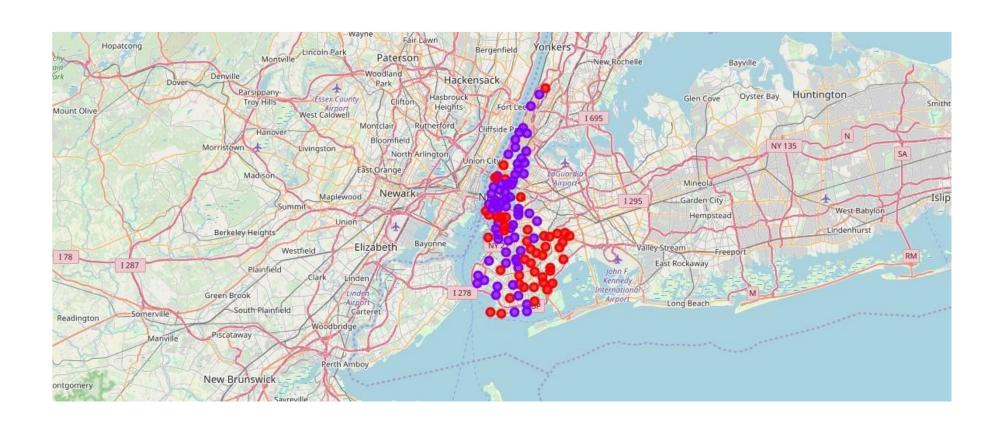
MANHATTAN AND BROOKLYN VENUES VISUALIZATION



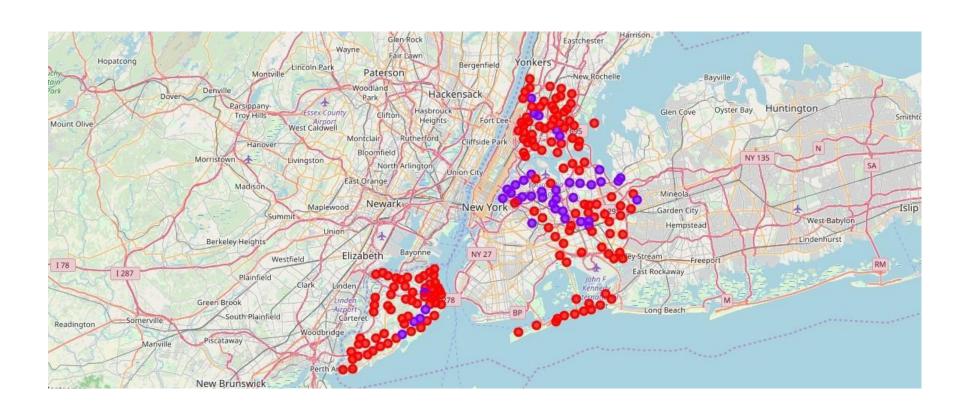
BRONX, QUEENS AND STATEN ISLAND VISUALIZATION



RESULTS OF BROOKLYN AND MANHATTAN



REMAINING RESULTS



CONCLUSION

This project is performed using limited data and hence may not fetch optimum results. But if good amount of data is available, better results can be attained. Bronx, Queens and Staten Island have fewer number of restaurants and hence it is a good market for exploration. Brooklyn and Manhattan have many restaurants, which can be a good market if one wants to get into the peak market. The cuisine can be chosen as per each neighborhood.