

Battle Of The Neighbourhoods

An Analysis Of New York Restaurants Distribution

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Introduction:



The Review of the New York City to be able to open a new Restaurant Business



Being able to select the best place to open the new Establishment



Know the competition



Choice of Cuisine



Identify The best Neighbourhood

The New York City

- It is diverse and is the financial capital of USA.
- It has attracted many different players into the market. It is a global hub of business and commerce. The city is a major centre for banking and finance, retailing, world trade, transportation, tourism.
- New York City's food culture includes an array of international cuisines influenced by the city's immigrant history. Central and Eastern European immigrants, specialty Jewish immigrants from those regions, brought begets, cheesecake, hot dogs, knishes, and delicatessens (or diets) to the city.
- Some 4,000 mobile food vendors. As of 2019, there were 27,043 restaurants in the city, up from 24,865 in 2017

Factors Affecting the Restaurant Location



New York Population



New York City Demographics



The Location of the Restaurant from the Raw Materials like Markets



The existing Competition in the Area

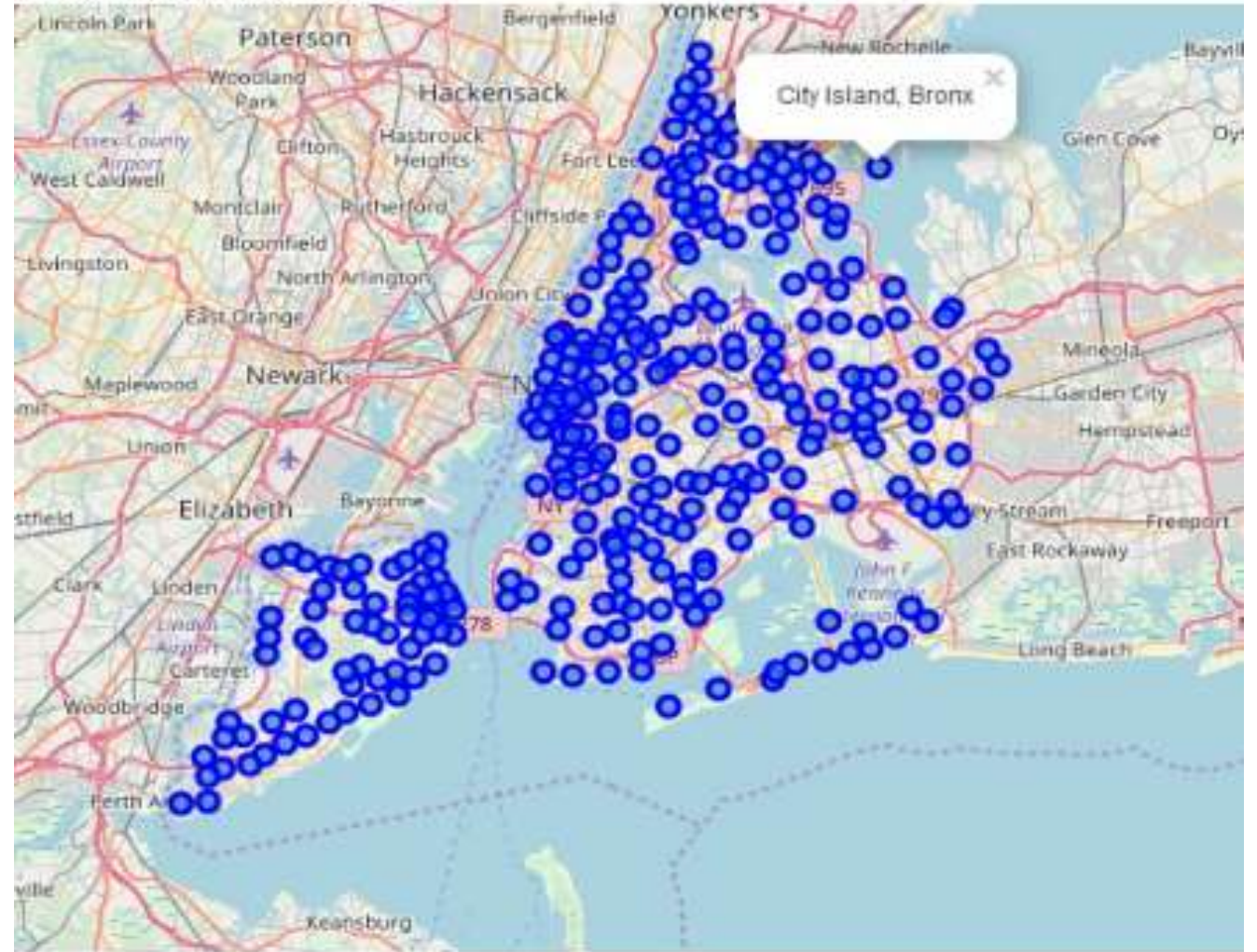


The type of food served

New York City Neighbourhood Dataset.

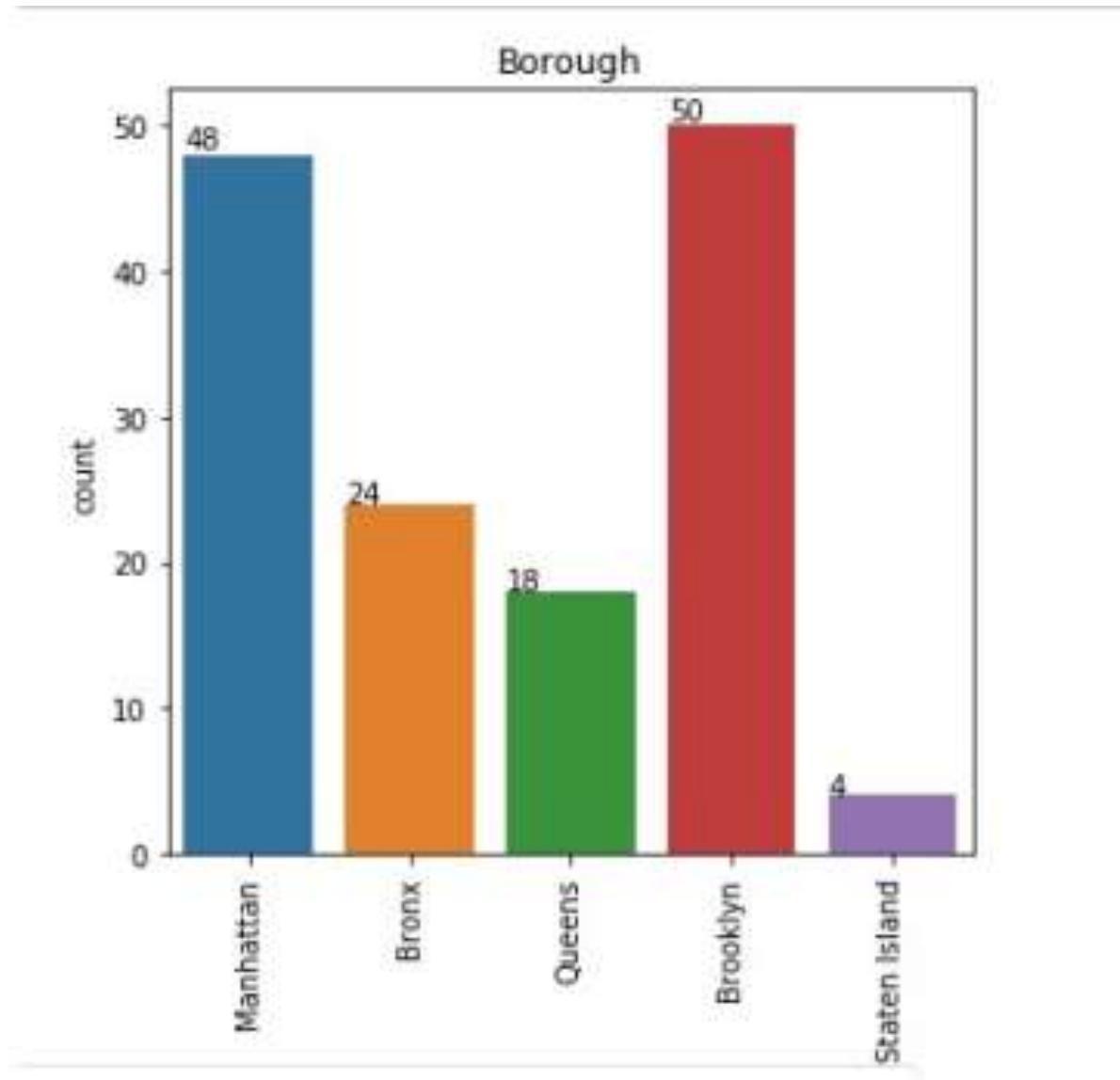
- The City has a total of 5 boroughs and 306 neighbourhoods. In order to analyze the city we need to create a data frame that has boroughs and the relevant neighbourhood along with their latitude and longitude details.

hood visualization



DOHMH Farmers Markets and Food Boxes dataset.

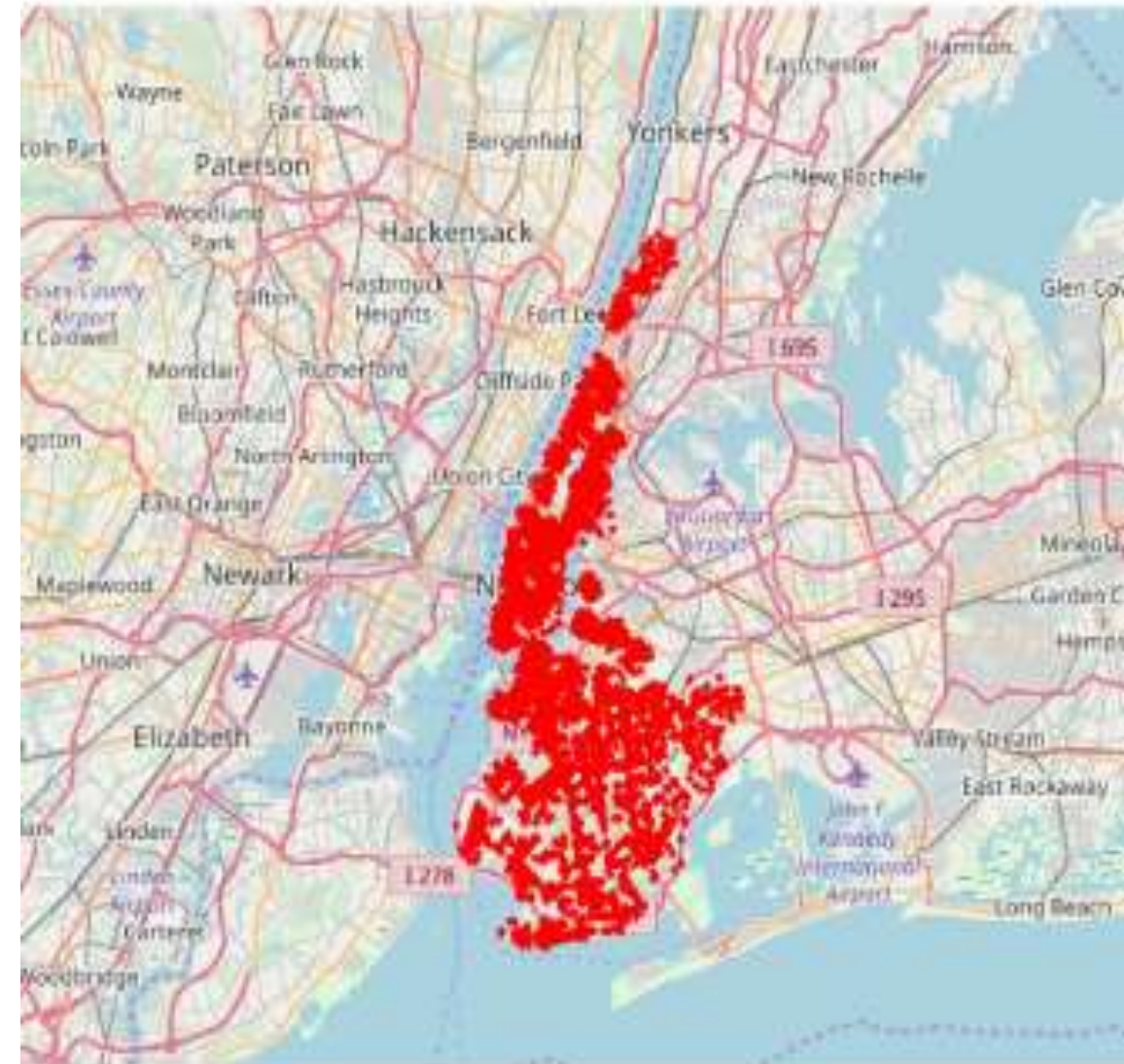
- There are total 144 Farmers Markets in New York city. Highest number are in Manhattan and Brooklyn. And lowest in Queens, Bronx and Staten Island.



Foursquare API:

- New York city geographical coordinates data has been utilized as input for the Foursquare API, that has been leveraged to provision venues information for each neighbourhood. We used the Foursquare API data to explore neighbourhoods in New York City.

venues Visualization : Generated the below B
M_venues" dataframe has 9708 venues and 3



Bronx, Queens and Staten Island Venues Visualization : The "BQS_venues" dataframe has 10805 venues and 387 unique venue types.

	Neighborhood	NeighborhoodLatitude	NeighborhoodLongitude	Venue	VenueLatitude	VenueLongitude	VenueCategory
0	Wakefield	40.894705	-73.847201	Lollipops Gelato	40.894123	-73.845892	Dessert Shop
1	Wakefield	40.894705	-73.847201	Ripe Kitchen & Bar	40.898152	-73.838875	Caribbean Restaurant
2	Wakefield	40.894705	-73.847201	Jackie's West Indian Bakery	40.889283	-73.843310	Caribbean Restaurant
3	Wakefield	40.894705	-73.847201	Ali's Roti Shop	40.894036	-73.856935	Caribbean Restaurant
4	Wakefield	40.894705	-73.847201	Rite Aid	40.896521	-73.844680	Pharmacy

on Island Venues Map Visualization :



Bronx, Queens And
Staten Island
Venues Map

- This Helps us better understand the concentration of Different Restaurant Venues

Conclusion

- From the data we filtered and used only the restaurant data for Brooklyn & Manhattan clustering and Bronx, Queens and Staten Island clustering, As our main focus was on the restaurant business
- Based on **Neighbourhood K-Means clustering based on mean occurrence of venue category:**
we were able to cluster the restaurant business and were able to find the best place where the chances of business succeeding is better is Manhattan as its near to supply and along with that there is also huge scope of Success.

below Map Visualization, we can see the different types of clusters created by using K-Means clustering on restaurant data across the New York City area, including Manhattan, Bronx, Queens and Staten Island.

