

THE BATTLE OF

NEIGHBORHOODS

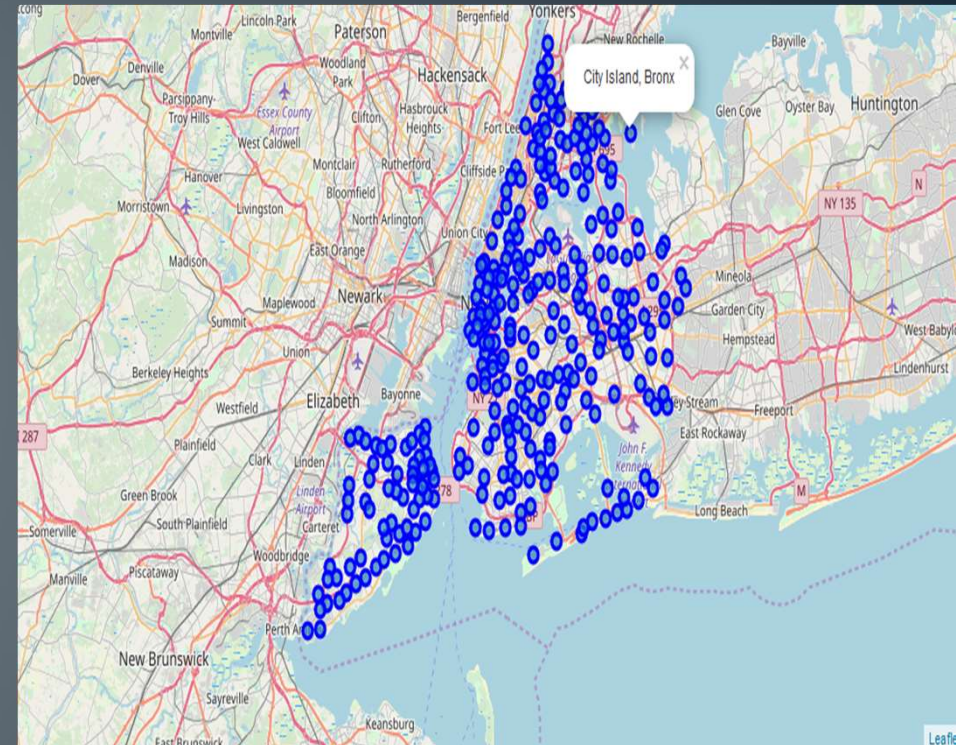
XYZ Company Limited



1. Manhattan, 2. Brooklyn,
3. Queens, 4. The Bronx,
5. Staten Island

INTRODUCTION

- New York city review for XYZ Company.
- Optimum location for new Restaurant business
- **Business Problem :**
 - Choice of first neighborhood to start restaurant business.
 - Easy to replicate.
 - Low competition
 - High demand
- **Success Criteria :**
 - Best neighborhood which meets above criteria.



DATA DESCRIPTION

- Data requirements :
 - Neighborhoods information (iNeighborhood, Latitude, Longitude,)
 - Venues Data (Venue , Venue Category, Venue Latitude and Venue Longitude)
- Data sources :
 - Wikipedia Pages
 - Farmers Market Data — <https://data.cityofnewyork.us>
 - Foursquare.com
- Data Processing :
 - Data cleaning
 - Data should be in structured format

	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

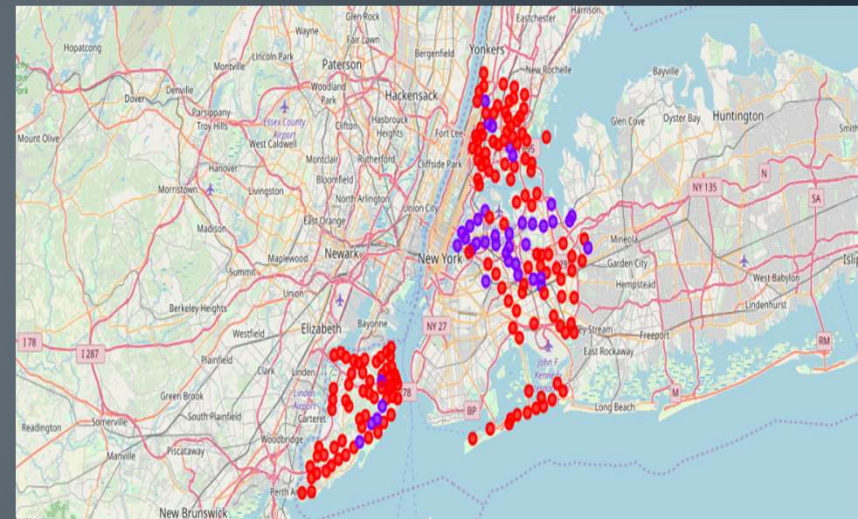
METHODOLOGY

- Data scrapping for data
 - Neighborhood data from Json file
 - Convert data into structured format
- Foursquare.com
 - Retrieve Venue data from foursqaure API.
- K-Means Clustering
 - Segment and cluster similar neighborhoods



RESULT

- Clustering Similar Neighborhoods
 - 1. Brooklyn and Manhattan
 - 2. Bronx, Queens and Staten Island
 - Cluster0 : The Total and Total Sum of cluster0 has smallest value for both 1 and 2.
 - Cluster1 : The Total and Total Sum is very high. Lot of competition. Saturated neighborhoods.



DISCUSSION

- Scope to explore cuisines of various countries in Bronx, Queens and Staten Island
- Manhattan and Brooklyn restaurants of cuisines of many countries are available. So if risk can be taken with great menu on board. It also shows people love and explore cuisines of various countries.
- Scope to increase Farmers markets in Bronx, Queens and Staten Island.

	Borough	Neighborhood	Latitude	Longitude	Total	Cluster_Labels
0	Staten Island	Todt Hill	40.597069	-74.111329	0	0
1	Staten Island	Port Ivory	40.639683	-74.174645	0	0
2	Staten Island	Bloomfield	40.605779	-74.187256	0	0

CONCLUSION

- Recommendation :
 - Region - Cluster0
 - Neighborhood – Tod Hill, Port Ivory, Bloomfield
- Additional Note :
 - Re-run program with updated information

THANK YOU