
The Battle Of Neighborhoods Research

By Timbake Dang

Reasons to start?

There are many existing venues in neighborhoods in New York state as well as Toronto city.

- Which venue by category and city have the most interesting from people as well as have the most number of users checked-in?
- How is competition between the venues of the same category in a city and neighborhoods?
- How do we develop strategies to expand business to new market base on the information that we researched and analysed



1. Data

The data used in these statistic and reports
was retrieved from.

→ **Wikipedia:**

https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M

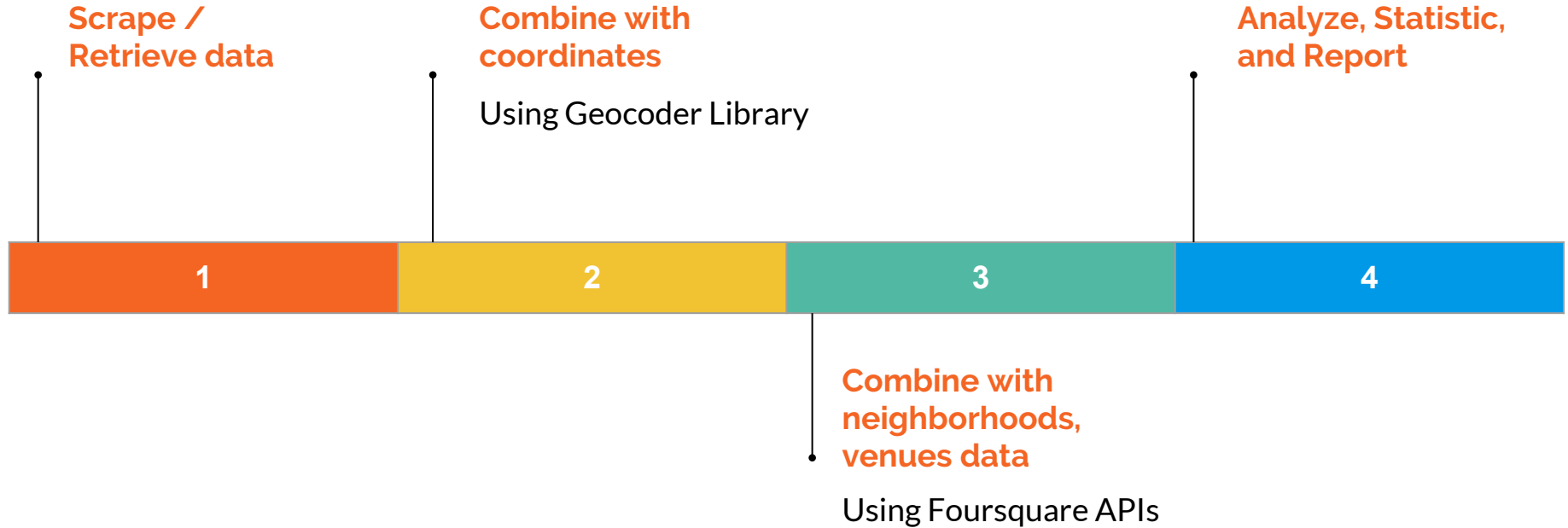
→ **IBM shared box**

<https://ibm.box.com/shared/static/fbpwbovar7lf8p5sgddm06cgipa2rxpe.json>

→ **Foursquare APIs**

<https://developer.foursquare.com/>

How did I perform research?





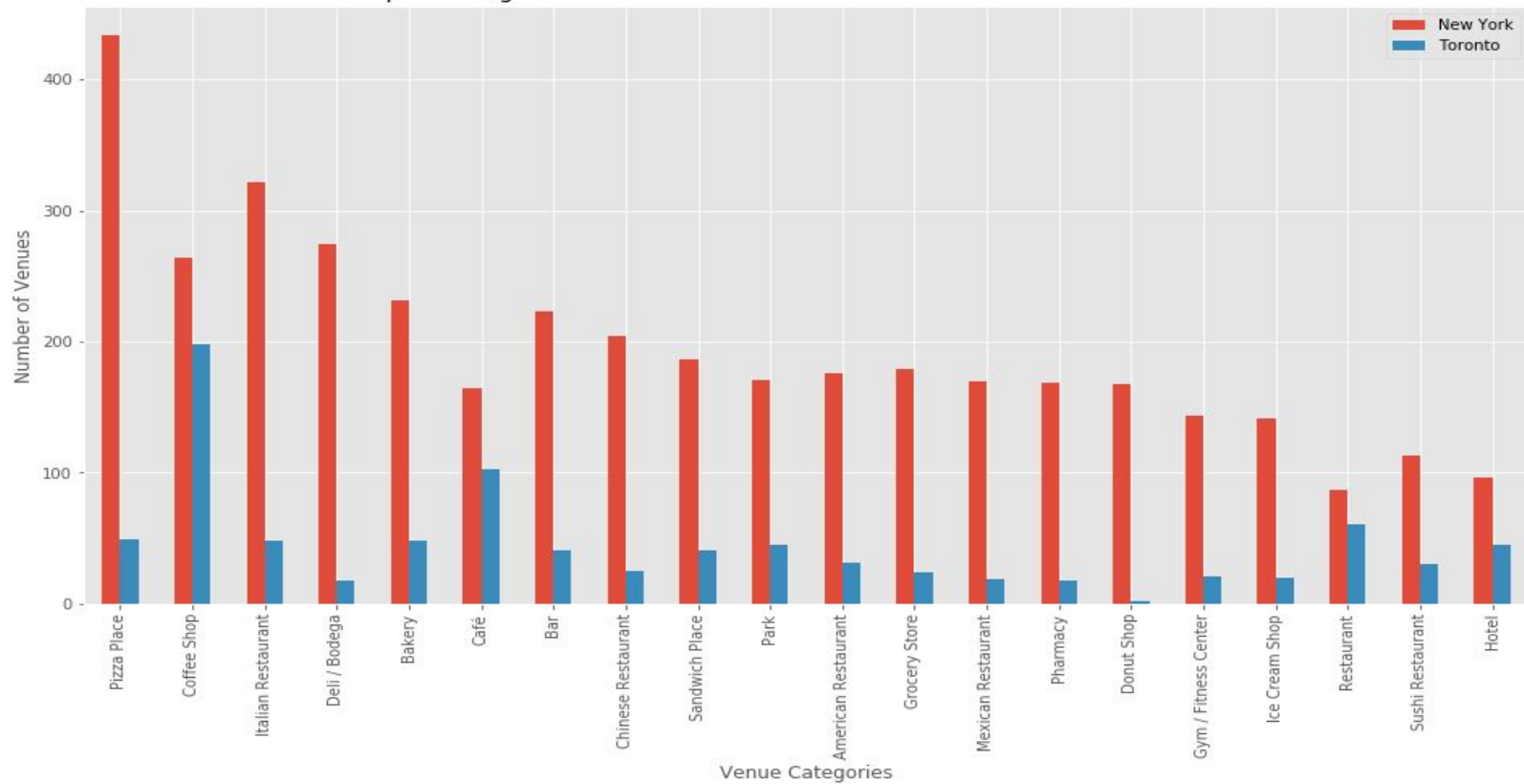
2. Statistic & Reports

- Top 20 recommended venues by category
- Top 10 venues have the most likes by category
- Top 5 venues have the highest rating by cities, neighborhoods

Top **20 categories**
has the most venues in
New York (state), Toronto
(City)

	New York	Toronto	Total
Pizza Place	434.0	49.0	483.0
Coffee Shop	264.0	198.0	462.0
Italian Restaurant	322.0	48.0	370.0
Deli / Bodega	274.0	18.0	292.0
Bakery	231.0	48.0	279.0
Café	164.0	103.0	267.0
Bar	223.0	41.0	264.0
Chinese Restaurant	204.0	25.0	229.0
Sandwich Place	186.0	41.0	227.0
Park	171.0	45.0	216.0
American Restaurant	176.0	31.0	207.0
Grocery Store	179.0	24.0	203.0
Mexican Restaurant	170.0	19.0	189.0
Pharmacy	169.0	18.0	187.0
Donut Shop	168.0	2.0	170.0
Gym / Fitness Center	144.0	21.0	165.0
Ice Cream Shop	141.0	20.0	161.0
Restaurant	87.0	61.0	148.0
Sushi Restaurant	113.0	30.0	143.0
Hotel	96.0	45.0	141.0

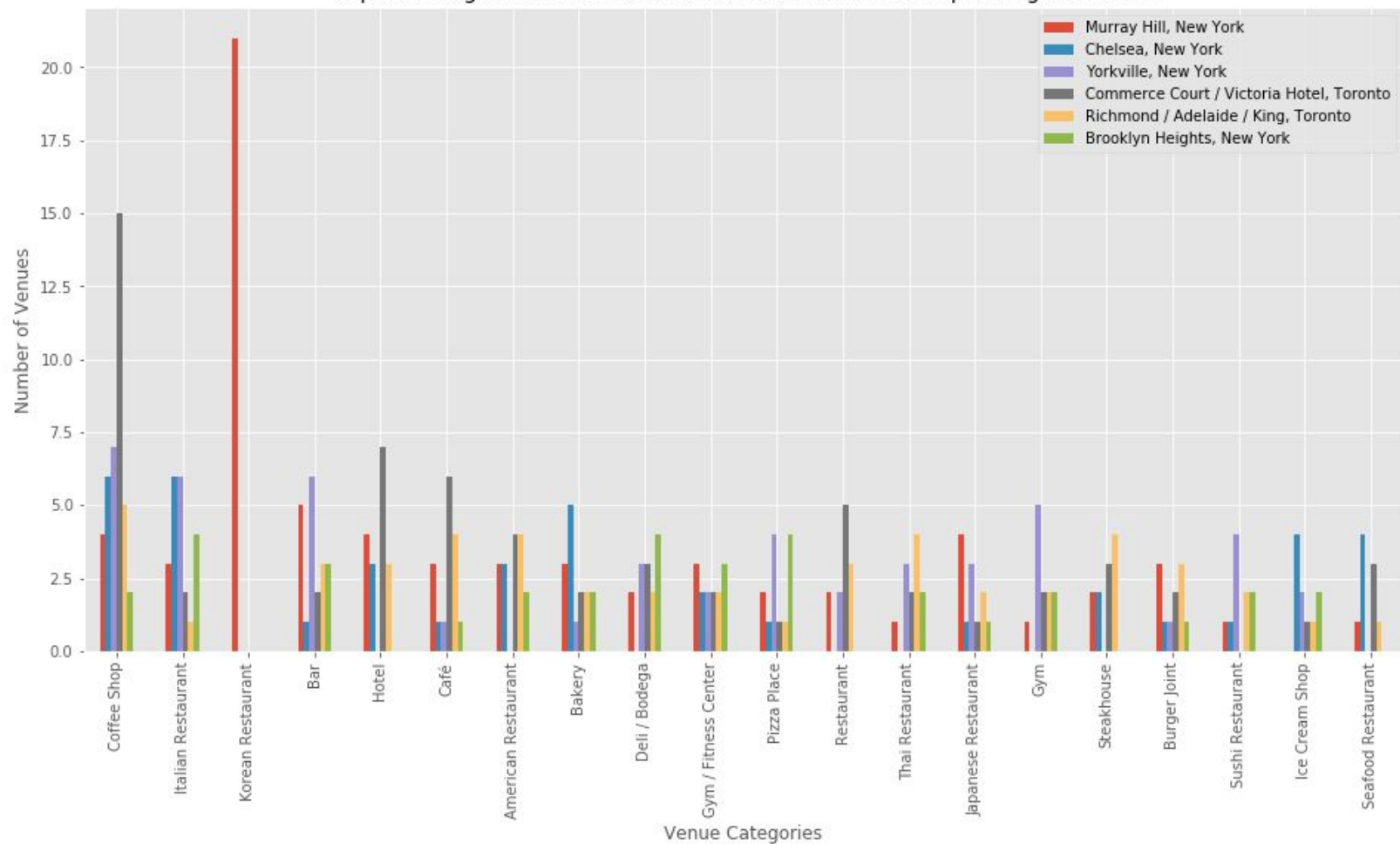
Top 20 Categories Has Most Recommended Venues in New York and Toronto



Top **20 categories**
has the most venues Top
6 neighborhoods

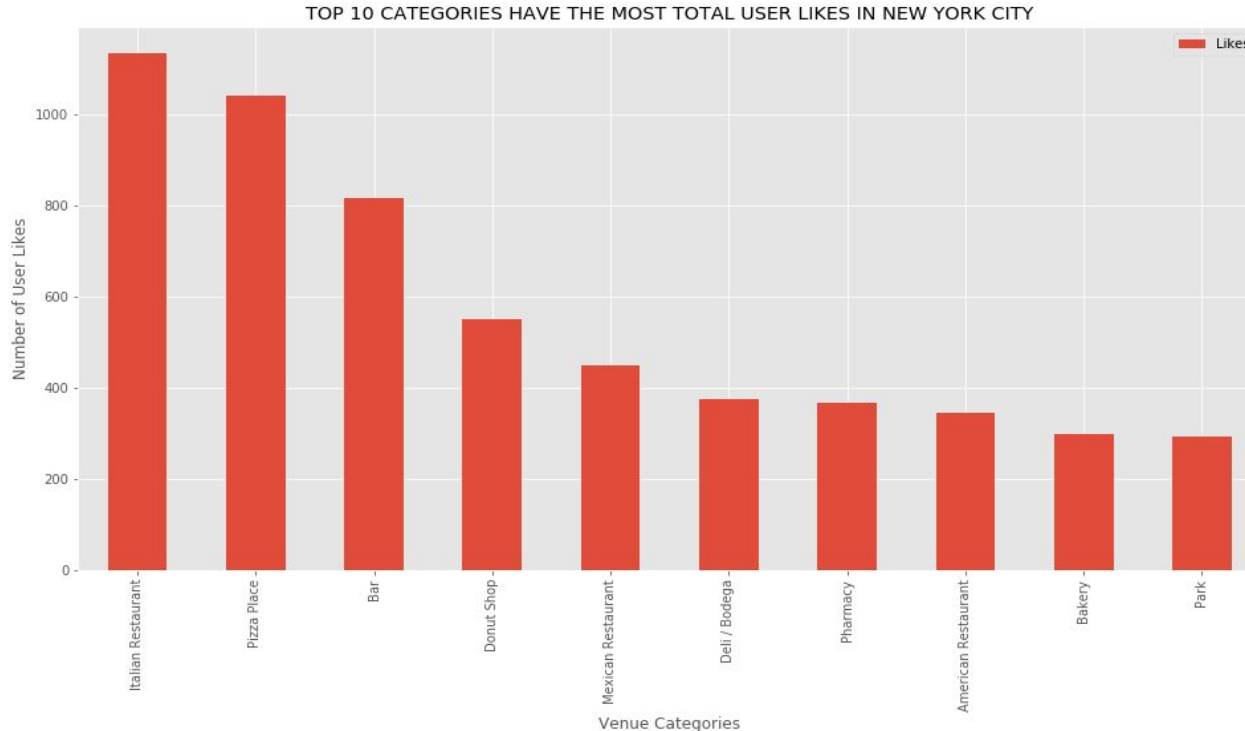
	Murray Hill, New York	Chelsea, New York	Yorkville, New York	Commerce Court / Victoria Hotel, Toronto	Richmond / Adelaide / King, Toronto	Brooklyn Heights, New York	Total
Coffee Shop	4	6	7	15	5	2	39
Italian Restaurant	3	6	6	2	1	4	22
Korean Restaurant	21	0	0	0	0	0	21
Bar	5	1	6	2	3	3	20
Hotel	4	3	0	7	3	0	17
Café	3	1	1	6	4	1	16
American Restaurant	3	3	0	4	4	2	16
Bakery	3	5	1	2	2	2	15
Deli / Bodega	2	0	3	3	2	4	14
Gym / Fitness Center	3	2	2	2	2	3	14
Pizza Place	2	1	4	1	1	4	13
Restaurant	2	0	2	5	3	0	12
Thai Restaurant	1	0	3	2	4	2	12
Japanese Restaurant	4	1	3	1	2	1	12
Gym	1	0	5	2	2	2	12
Steakhouse	2	2	0	3	4	0	11
Burger Joint	3	1	1	2	3	1	11
Sushi Restaurant	1	1	4	0	2	2	10
Ice Cream Shop	0	4	2	1	1	2	10
Seafood Restaurant	1	4	0	3	1	0	9

Top 20 Categories Has Most Recommended Venues Of Top 6 Neighborhoods



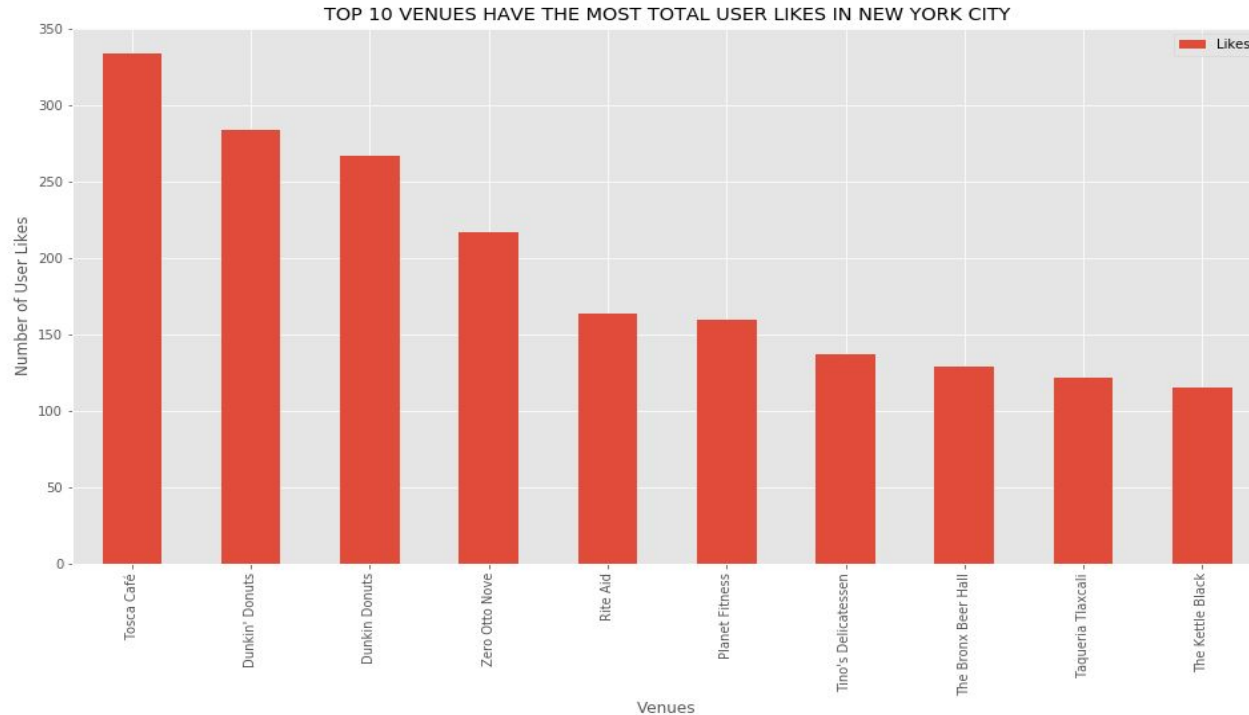
Top 10 categories

has the most user likes in
New York



	Category Name	Likes
0	Italian Restaurant	1134
1	Pizza Place	1040
2	Bar	816
3	Donut Shop	551
4	Mexican Restaurant	449
5	Deli / Bodega	376
6	Pharmacy	368
7	American Restaurant	346
8	Bakery	297
9	Park	293

Top **10 venues** has the most user likes in New York



	Venue Name	Likes
0	Tosca Café	334
1	Dunkin' Donuts	284
2	Dunkin Donuts	267
3	Zero Otto Nove	217
4	Rite Aid	164
5	Planet Fitness	160
6	Tino's Delicatessen	137
7	The Bronx Beer Hall	129
8	Taqueria Tlaxcali	122
9	The Kettle Black	115

Top 5 venues

has the highest rating by cities, neighborhoods

		Venue ID	Venue Latitude	Venue Longitude	Rating
City	Venue Name				
Bronx	Zero Otto Nove	4aabd3e6f964a5204a5a20e3	40.854714	-73.888388	9.4
	Tino's Delicatessen	4acf80aef964a52025d420e3	40.855882	-73.887166	9.4
	Taqueria Tlaxcali	4b4929d2f964a520656826e3	40.836098	-73.854948	9.3
	The Bronx Beer Hall	50e600a4526287052c53bb99	40.854198	-73.888233	8.6
	Tosca Café	4b4b9f1df964a5201fa226e3	40.819204	-73.817467	8.4
	Planet Fitness	4f5ce789e4b0a4baa3d5dbb6	40.863298	-73.835568	8.0
	Dunkin' Donuts	4b5357adf964a520319827e3	40.876993	-73.906507	7.5
	Dunkin' Donuts	4ba92d21f964a5209e113ae3	40.852560	-73.827359	7.5
	Rite Aid	4bafb541f964a520a4193ce3	40.829232	-73.825341	7.4
	Dunkin Donuts	4bfb0096bbb7c9284e8f0743	40.845346	-73.865942	7.3
	Planet Fitness	462d15a3f964a520e7451fe3	40.848290	-73.830875	7.3
	Dunkin Donuts	4e38a2cfbd415d9f63d71183	40.879146	-73.905260	7.3
	Dunkin' Donuts	4b3a2cecf964a520e56125e3	40.906489	-73.904592	7.1
	Dunkin Donuts	4ba3782cf964a520b43f38e3	40.885481	-73.828015	7.0
	Dunkin Donuts	4c0bc649bbc676b096fb4bd5	40.834105	-73.851683	6.9
Brooklyn	Dunkin' Donuts	4b647ca3f964a52030b72ae3	40.841109	-73.839253	6.6
	Rite Aid	4b82201df964a52022cb30e3	40.885481	-73.900814	6.4
	Planet Fitness	4b9c08adf964a5201c4336e3	40.862619	-73.894390	6.3
	The Kettle Black	4a9880f5f964a520692c20e3	40.622839	-74.031411	8.1
	Dunkin' Donuts	4b991f43f964a520d06235e3	40.621868	-74.028789	7.4

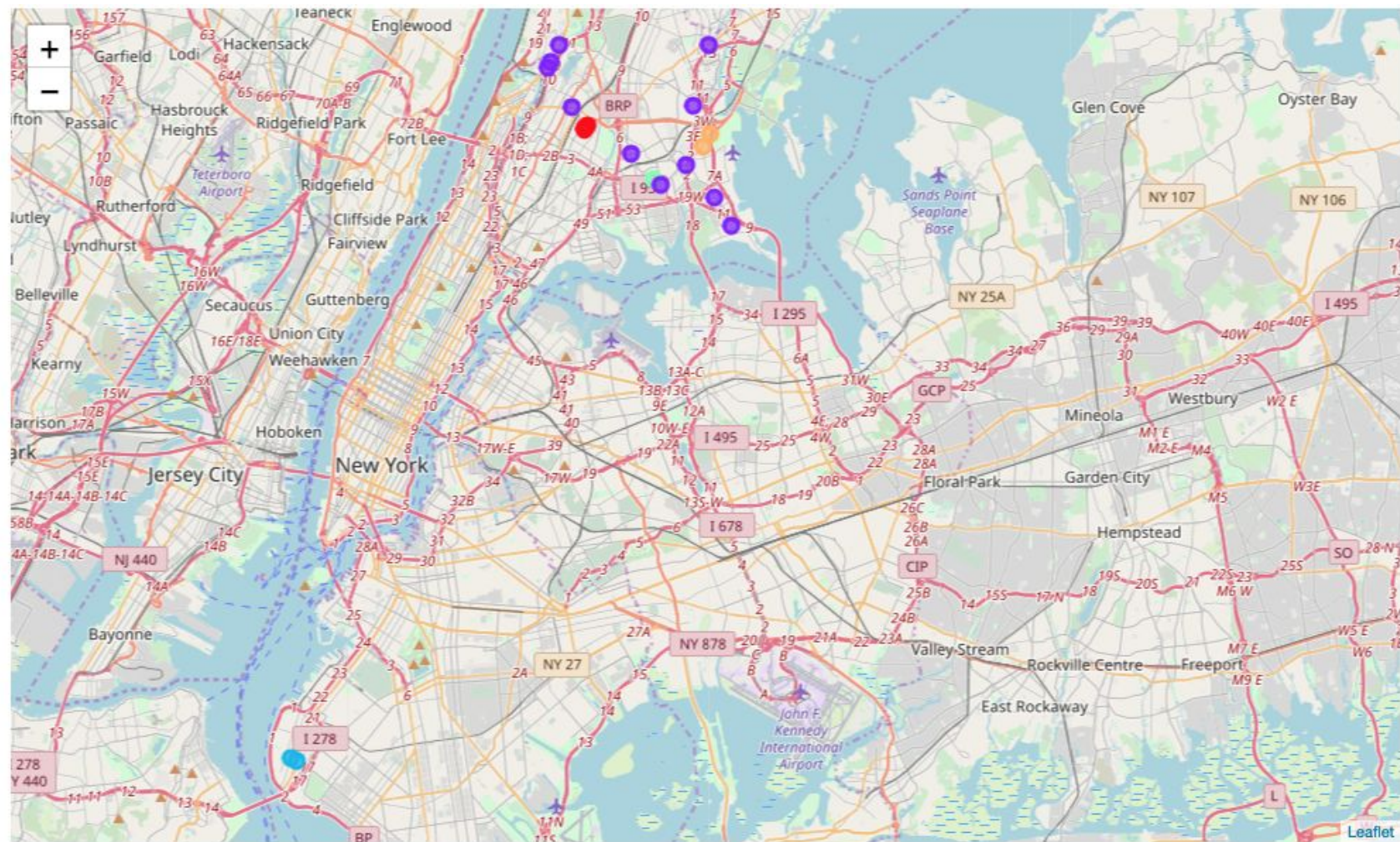
		Venue ID	Venue Latitude	Venue Longitude	Rating
Neighborhood	Venue Name				
Bay Ridge - Brooklyn	The Kettle Black	4a9880f5f964a520692c20e3	40.622839	-74.031411	8.1
	Dunkin' Donuts	4b991f43f964a520d06235e3	40.621868	-74.028789	7.4
Baychester - Bronx	Planet Fitness	4f5ce789e4b0a4baa3d5dbb6	40.863298	-73.835568	8.0
Belmont - Bronx	Zero Otto Nove	4aabd3e6f964a5204a5a20e3	40.854714	-73.888388	9.4
	Tino's Delicatessen	4acf80aef964a52025d420e3	40.855882	-73.887166	9.4
	The Bronx Beer Hall	50e600a4526287052c53bb99	40.854198	-73.888233	8.6
Eastchester - Bronx	Dunkin Donuts	4ba3782cf964a520b43f38e3	40.885481	-73.828015	7.0
Fordham - Bronx	Planet Fitness	4b9c08adf964a5201c4336e3	40.862619	-73.894390	6.3
Kingsbridge - Bronx	Dunkin Donuts	4e38a2cfbd415d9f63d71183	40.879146	-73.905260	7.3
	Rite Aid	4b82201df964a52022cb30e3	40.885481	-73.900814	6.4
Marble Hill - Bronx	Dunkin' Donuts	4b5357adf964a520319827e3	40.876993	-73.906507	7.5
North Riverdale - Bronx	Dunkin' Donuts	4b3a2cecf964a520e56125e3	40.906489	-73.904592	7.1
Parkchester - Bronx	Taqueria Tlaxcali	4b4929d2f964a520656826e3	40.836098	-73.854948	9.3
	Dunkin' Donuts	4ba92d21f964a5209e113ae3	40.852560	-73.827359	7.5
Pelham Bay - Bronx	Planet Fitness	462d15a3f964a520e7451fe3	40.848290	-73.830875	7.3
	Rite Aid	4bafb541f964a520a4193ce3	40.829232	-73.825341	7.4
Schuylerville - Bronx	Tosca Café	4b4b9f1df964a5201fa226e3	40.819204	-73.817467	8.4
Throgs Neck - Bronx	Dunkin Donuts	4c0bc649bbc676b096fb4bd5	40.834105	-73.851683	6.9
Unionport - Bronx	Dunkin Donuts	4bfb0096bbb7c9284e8f0743	40.845346	-73.865942	7.3
Van Nest - Bronx	Dunkin' Donuts	4b647ca3f964a52030b72ae3	40.841109	-73.839253	6.6
Westchester Square - Bronx	Dunkin' Donuts	4b647ca3f964a52030b72ae3	40.841109	-73.839253	6.6



3. Clusters

We have 5 neighborhood clusters from 20 venues in Bronx & Brooklyn city:

- **Belmont (Red circle)**
- **Bay Ridge (Blue circle)**
- **Pelham (Orange circle)**
- **Separate neighborhoods in Bronx (Purple circle)**
- **Separate neighborhoods in Brooklyn (Blue green circle)**



4. Challenges

The quota of Foursquare APIs to get detail venues such as user likes, rating, checkins, visits, ... is limit

The size of data set is big:

Total venues in Toronto: 2206

Total venues in New York: 10168

Researching was not focus on specific business

5. Conclusion

At the beginning, I'm going to perform market researching by gathering data, analyzing data, statistic, clustering, and visualizing data so that I can make decision to choose the specific business what I'm interested in.

However, because Foursquare regular account has limit while there is no any clear, specified business, the information that I got is not enough to have the good detail picture about the market. I only know that both New York and Toronto users like restaurant, coffee shop.

Thus, I need to find out and focus on a specific business that I'm really love such as organic cafe bean imported from ASEAN, ASEAN restaurant. Then, I'll perform researching again using this methodology.

Base on the information that I have from researching, I will produce the strategies to develop New York market.