

Capstone Project

- The Battle of Neighborhoods:

Comparison of New York Manhattan neighborhoods for the coffee shop Biz investors

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S.B. Park

PROBLEM STATEMENT :



[Objective]

: To provide analysis data to our customer who want to open Korean style coffee shop brand in big cities in North America (such as NY, Toronto), the best quality areas for the determine of the coffee shop business.

[Problem statement]

: Our customer wish to start a new coffee shop franchise business in New York city. Because there are already many coffee shops and cafés in this big city, in order to catch new market opportunities, our customers want to open coffee shop brand with differentiated characteristics. The customer is preparing a Korean style coffee shop brand considering the popularity of the K-pop music culture which has many fans in this area recently.

The customer wants to determine which of the area(s) in New York city are better suited to open coffee shop businesses.

DATA DESCRIPTION :



Following data are used for this Capstone project.

[FourSquare API]

Query to get such categories information.

- . Number of coffee shop & café categories.
- . Number of (Korean) restaurant category.

[Neighborhood data]

- Geospatial postal data for NY, USA
http://cocl.us/Geospatial_data

Manhattan
New York County

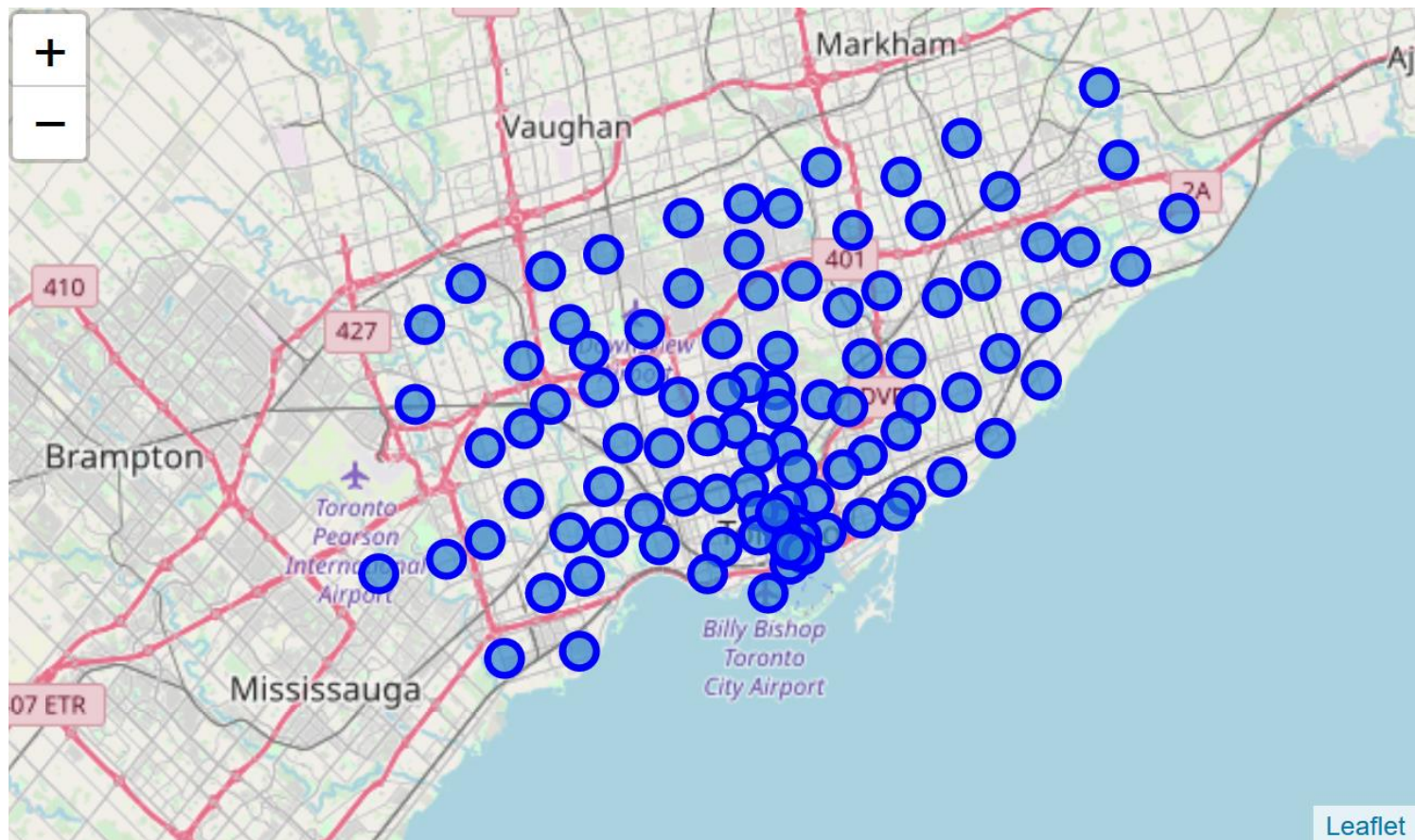
Borough of New York City
County of New York State



DATA ANALYSIS :



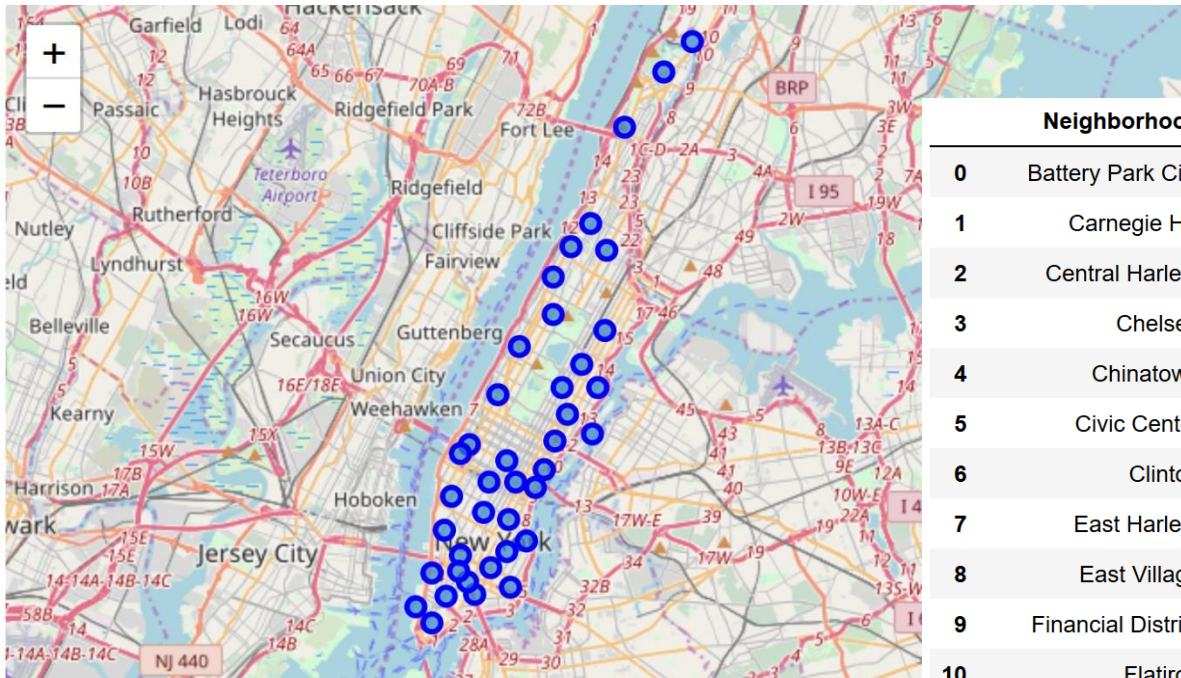
Identifying neighborhoods in Manhattan, New York.



DATA ANALYSIS :



Explore and cleansing venues data of 'Manhattan' which retrieved using Foursquare API

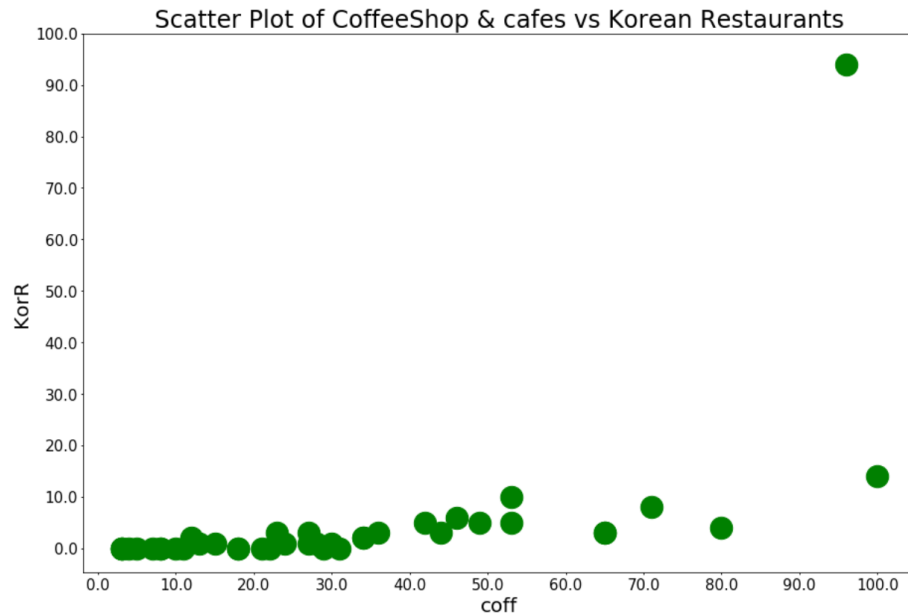


	Neighborhood	CoffeeShop & Cafe	Korean Restaurant
0	Battery Park City	31.0	0.0
1	Carnegie Hill	30.0	1.0
2	Central Harlem	3.0	0.0
3	Chelsea	44.0	3.0
4	Chinatown	46.0	6.0
5	Civic Center	36.0	3.0
6	Clinton	34.0	2.0
7	East Harlem	5.0	0.0
8	East Village	42.0	5.0
9	Financial District	65.0	3.0
10	Flatiron	53.0	10.0
11	Gramercy	23.0	3.0
12	Greenwich Village	65.0	3.0
13	Hamilton Heights	10.0	0.0
14	Hudson Yards	22.0	0.0
15	Inwood	8.0	0.0

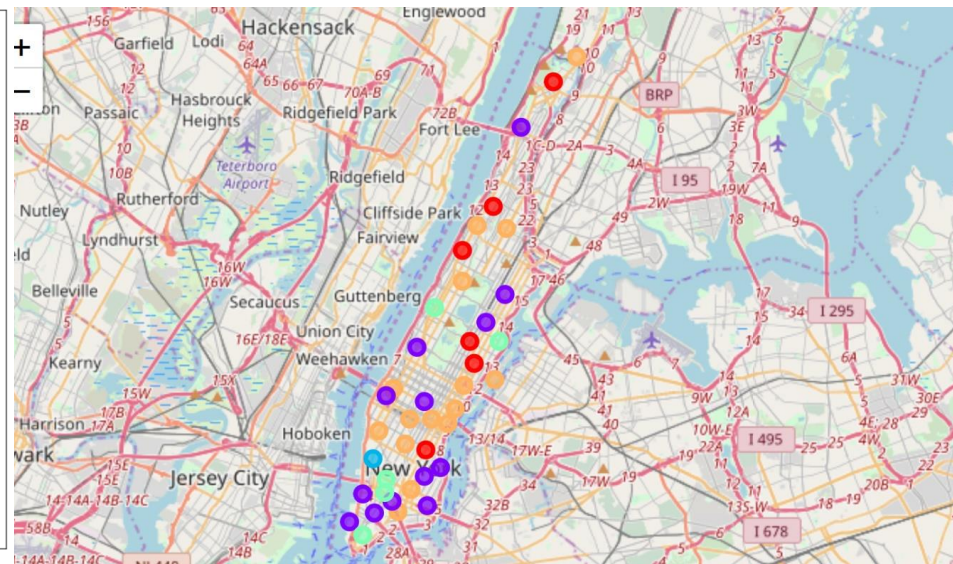
ML ANALYSIS :



It's been analyzed using two machine learning algorithms.



[k-means plot-data]



[k-means clustering]

RECOMMEND :



Conclusion

- Best recommending neighbor is : Midtown South
- Second recommending neighbor is : Flatiron
- Third recommending neighbor is : Chinatown

	Neighborhood	CoffeeShop & Cafe	Korean Restaurant
0	Marble Hill	3.0	0.0
1	Chinatown	46.0	6.0
5	Manhattanville	7.0	0.0
6	Central Harlem	3.0	0.0
11	Roosevelt Island	3.0	0.0
14	Clinton	34.0	2.0
16	Murray Hill	49.0	5.0
17	Chelsea	44.0	3.0
25	Manhattan Valley	12.0	2.0
31	Noho	53.0	5.0
33	Midtown South	96.0	94.0
34	Sutton Place	24.0	1.0
35	Turtle Bay	27.0	1.0
36	Tudor City	21.0	0.0
38	Flatiron	53.0	10.0