

THE BATTLE OF NEIGHBORHOODS

PROBLEM DESCRIPTION:

Changing house isn't a simple task, and much less move from one city to another, you must be clear criteria when choosing house such as nearby , restaurants, supermarkets, etc.

Andres has a job offer in New York City, he want to accept it but he don't want to change his lifestyle in a significant way. He wants rent in a neighborhood very similar to his neighborhood in Bogota, Colombia.

- GEOGRAPHICAL LOCATION:



NEIGHBORHOOD CLASIFICACION - EL PEDREGAL, BOGOTA - COLOMBIA

- LOCATION DESCRIPTION: There are 73 venues within a radius of 500 meters, and 42 unique categories

	name	categories	lat	lng
0	Good Club de Bienestar	Gym / Fitness Center	4.682004	-74.044794
1	Tierra del Fuego, Choripan Argentino	Argentinian Restaurant	4.682582	-74.044016
2	Arepa Cool	Latin American Restaurant	4.683576	-74.047218
3	Hamburguesas El Corral	Burger Joint	4.681437	-74.044795
4	Café 18	Breakfast Spot	4.680554	-74.046028
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68	Sopitas & Frijolada 98	Soup Place	4.683481	-74.047472
69	Exito Express	Shop & Service	4.681161	-74.041927
70	La Brasa Roja	Fast Food Restaurant	4.680811	-74.041489
71	Victor Cafe	Food Court	4.680951	-74.041419
72	Rock And Sushi	Sushi Restaurant	4.680681	-74.041590

NEIGHBORHOOD CLASIFICACION - EL PEDREGAL, BOGOTA - COLOMBIA

FRECUENCY: In the next table will show the top 20 venues in pedregal

----pedregal----		
	venue	freq
0	Burger Joint	0.11
1	Café	0.08
2	Hotel	0.07
3	Japanese Restaurant	0.04
4	Coffee Shop	0.04
5	Restaurant	0.04
6	Pizza Place	0.04
7	Comfort Food Restaurant	0.03
8	Sushi Restaurant	0.03
9	Breakfast Spot	0.03
10	Juice Bar	0.03
11	Seafood Restaurant	0.03
12	Gym / Fitness Center	0.03
13	Latin American Restaurant	0.03
14	Peruvian Restaurant	0.01
15	Mexican Restaurant	0.01
16	Animal Shelter	0.01
17	Pub	0.01
18	Sandwich Place	0.01
19	Shop & Service	0.01

NEIGHBORHOOD CLASIFICATION —BROOKLYN, NY

NEIGHBORHOODS IN BROOKLYN:

No	Neighborhood
1	Bay Ridge
2	Bensonhurst
3	Sunset Park
4	Greenpoint
5	Gravesend
6	Brighton Beach
7	Sheepshead Bay
8	Manhattan Terrace
9	Flatbush
10	Crown Heights
11	East Flatbush
12	Kensington
13	Windsor Terrace
14	Prospect Heights
15	Brownsville
16	Williamsburg
17	Bushwick
18	Bedford Stuyvesant
19	Brooklyn Heights
20	Cobble Hill
21	Carroll Gardens
22	Red Hook
23	Gowanus
24	Fort Greene
25	Park Slope
26	Cypress Hills
27	East New York
28	Starrett City
29	Canarsie
30	Flatlands
31	Mill Island
32	Manhattan Beach
33	Coney Island
34	Bath Beach
35	Borough Park

No	Neighborhood
36	Dyker Heights
37	Gerritsen Beach
38	Marine Park
39	Clinton Hill
40	Sea Gate
41	Downtown
42	Boerum Hill
43	Prospect Lefferts Gardens
44	Ocean Hill
45	City Line
46	Bergen Beach
47	Midwood
48	Prospect Park South
49	Georgetown
50	East Williamsburg
51	North Side
52	South Side
53	Ocean Parkway
54	Fort Hamilton
55	Ditmas Park
56	Wingate
57	Rugby
58	Remsen Village
59	New Lots
60	Paerdegat Basin
61	Mill Basin
62	Fulton Ferry
63	Vinegar Hill
64	Weeksville
65	Broadway Junction
66	Dumbo
67	Homecrest
68	Highland Park
69	Madison
70	Erasmus

NEIGHBORHOOD CLASIFICATION —BROOKLYN, NY

FREQUENCY: Lets look some neighborhoods with the top 5 frequency venues

----Bath Beach----

	venue	freq
0	Pizza Place	0.06
1	Chinese Restaurant	0.06
2	Gas Station	0.04
3	Dessert Shop	0.04
4	Fast Food Restaurant	0.04

----Bedford Stuyvesant----

	venue	freq
0	Coffee Shop	0.11
1	Pizza Place	0.07
2	Café	0.07
3	Deli / Bodega	0.07
4	Bar	0.07

----Bergen Beach----

	venue	freq
0	Harbor / Marina	0.4
1	Athletics & Sports	0.2
2	Baseball Field	0.2
3	Playground	0.2
4	Pakistani Restaurant	0.0

----Bay Ridge----

	venue	freq
0	Italian Restaurant	0.06
1	Spa	0.05
2	Greek Restaurant	0.05
3	Pizza Place	0.05
4	American Restaurant	0.04

----Bensonhurst----

	venue	freq
0	Chinese Restaurant	0.10
1	Donut Shop	0.06
2	Grocery Store	0.06
3	Italian Restaurant	0.06
4	Sushi Restaurant	0.06

----Boerum Hill----

	venue	freq
0	Dance Studio	0.06
1	Bar	0.05
2	Coffee Shop	0.05
3	Furniture / Home Store	0.03
4	French Restaurant	0.03

NEIGHBORHOOD CLASIFICATION —BROOKLYN, NY

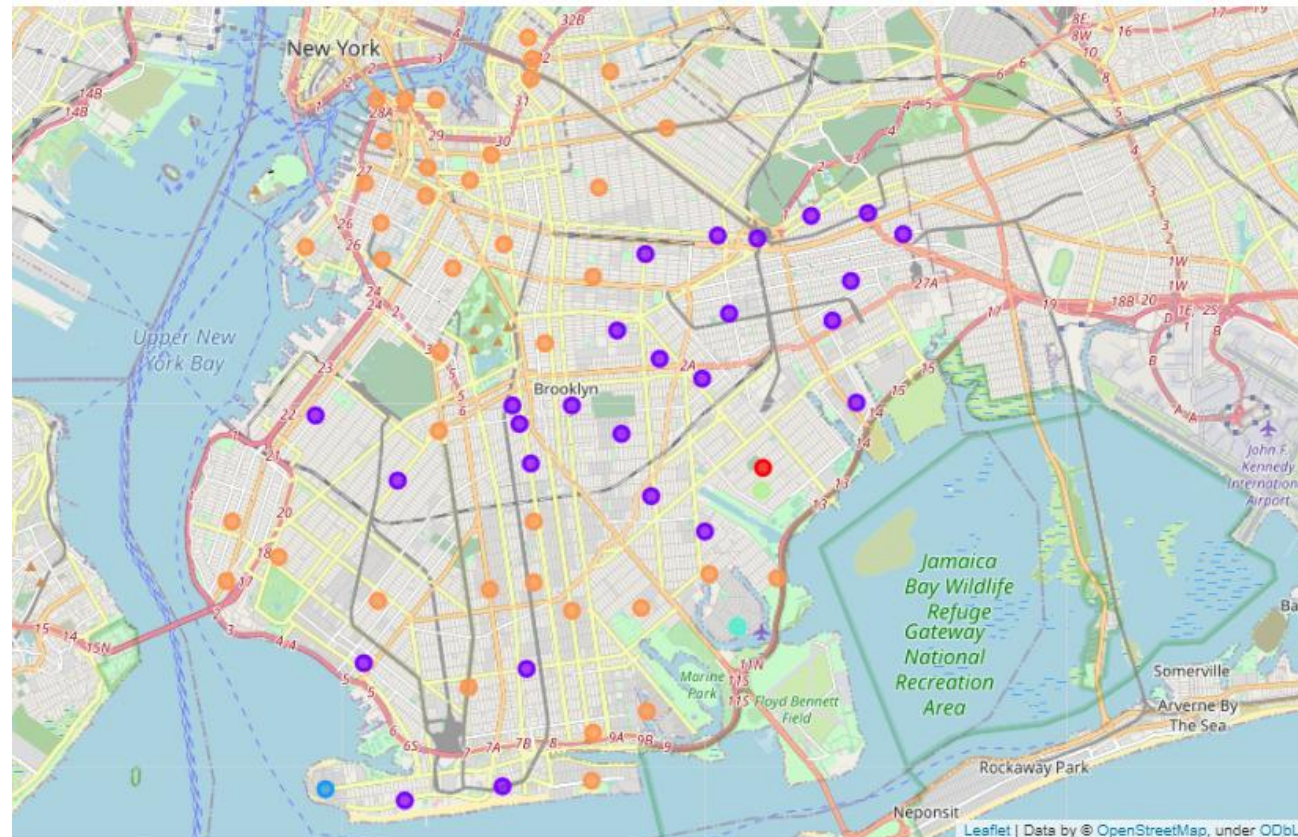
CLUSTERING: we use $K = 6$

	Borough	Neighborhood	Latitude	Longitude	Cluster Labels
0	Brooklyn	Bay Ridge	40.625801	-74.030621	5
1	Brooklyn	Bensonhurst	40.611009	-73.995180	5
2	Brooklyn	Sunset Park	40.645103	-74.010316	1
3	Brooklyn	Greenpoint	40.730201	-73.954241	5
4	Brooklyn	Gravesend	40.595260	-73.973471	5

NEIGHBORHOOD CLASIFICATION —BROOKLYN, NY

MAP OF CLUSTERS:

- CLUTER 0
- CLUTER 1
- CLUTER 2
- CLUTER 3
- CLUTER 5



NEIGHBORHOOD SELECTION.

After use the trained model we can suggest to Andres a list of neighbourhoods that are similar to El Pedregal in Bogota city.

No	Neighborhood
1	Bay Ridge
2	Bensonhurst
3	Greenpoint
4	Gravesend
5	Sheepshead Bay
6	Manhattan Terrace
7	Crown Heights
8	Kensington
9	Windsor Terrace
10	Prospect Heights
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