



# FINDING THE OPTIMAL LOCATION FOR ESTABLISHING A RESTAURANT IN TORONTO, CA

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# OUR GOAL IS TO FIND THE OPTIMAL LOCATION TO ESTABLISH A MEXICAN RESTAURANT IN TORONTO

- Location is one of the most important factors when stakeholders are interested in establishing a new restaurant in a certain city.
- So We need to consider places **aren't** crowded with restaurants. Specially we are looking for a place with **no** Mexican Restaurants in vicinity.

# DATA ACQUISITION AND CLEANING

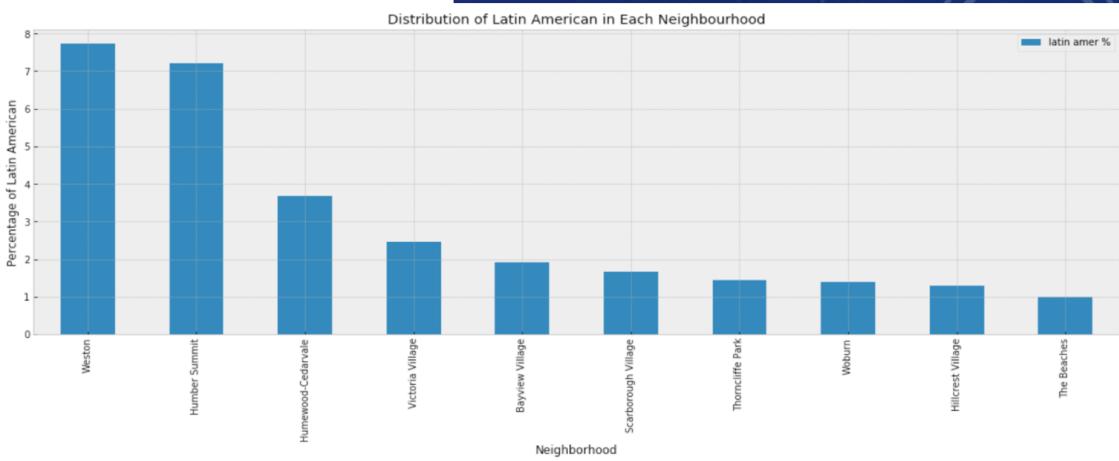
- We will get data about the neighborhoods in Toronto City from Wikipedia website, [here](#).
- Geographical coordinates for each neighborhood to explore the City using Foursquare API, [here](#).
- The population information in the city to calculate the percentage of Latin American people in each neighborhoods ,[here](#).

# MERGING ALL THE INFORMATION IN ONE DATAFRAME

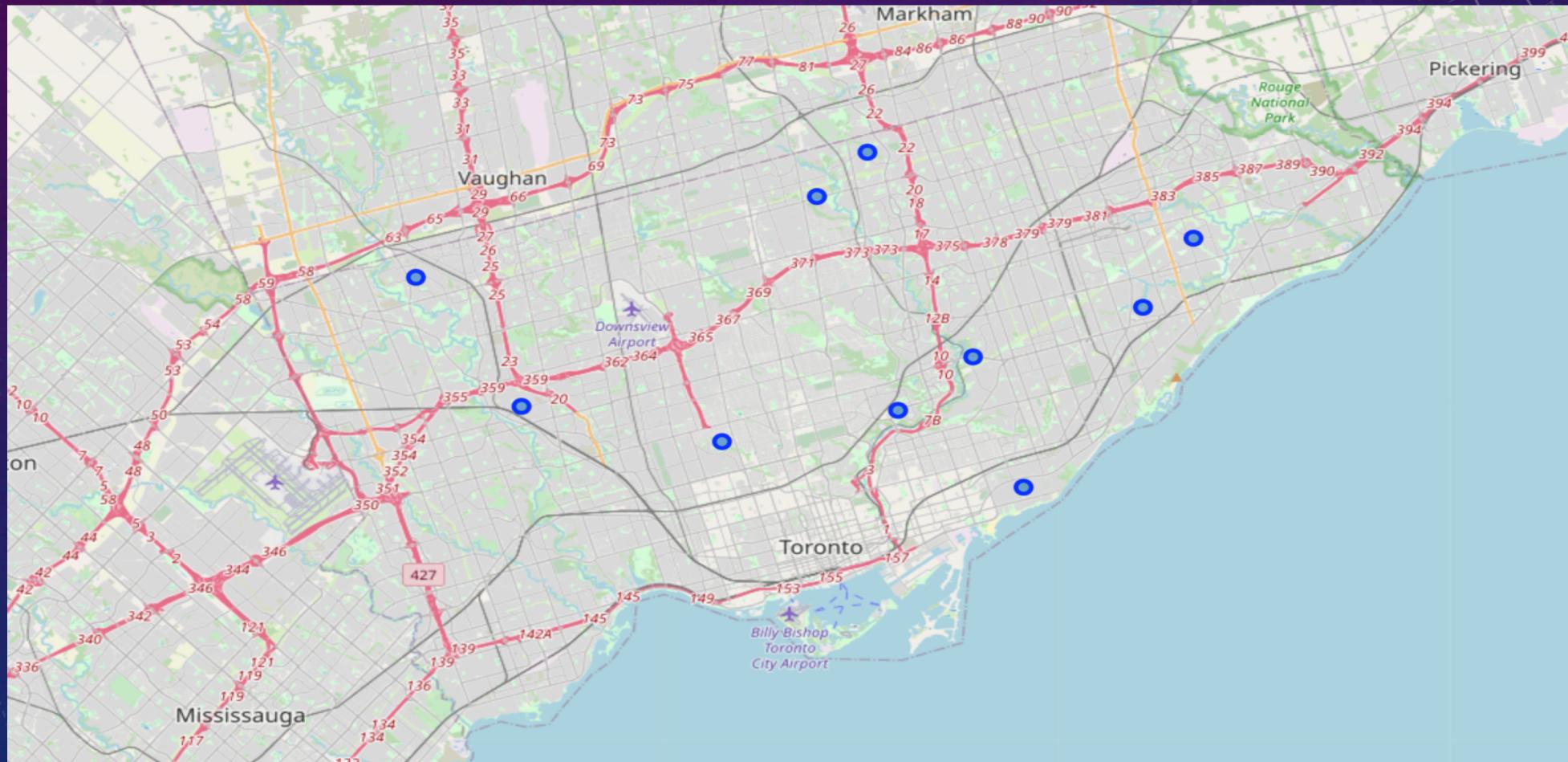
	Borough	Neighborhood	Postal Code	Latitude	Longitude	Total Population	Latin American
0	North York	Victoria Village	M4A	43.725882	-79.315572	17510.0	430.0
1	York	Humewood-Cedarvale	M6C	43.693781	-79.428191	14365.0	530.0
2	East Toronto	The Beaches	M4E	43.676357	-79.293031	21567.0	215.0
3	Scarborough	Woburn	M1G	43.770992	-79.216917	53485.0	745.0
4	North York	Hillcrest Village	M2H	43.803762	-79.363452	16934.0	220.0
5	East York	Thorncliffe Park	M4H	43.705369	-79.349372	21108.0	305.0
6	Scarborough	Scarborough Village	M1J	43.744734	-79.239476	16724.0	280.0
7	North York	Bayview Village	M2K	43.786947	-79.385975	21396.0	410.0
8	North York	Humber Summit	M9L	43.756303	-79.565963	12416.0	895.0
9	York	Weston	M9N	43.706876	-79.518188	17992.0	1390.0

# CALCULATING THE PERCENTAGE OF LATIN AMERICAN PEOPLE IN EACH NEIGHBORHOOD

	Borough	Neighborhood	Postal Code	Latitude	Longitude	Total Population	Latin American	latin amer %
0	North York	Victoria Village	M4A	43.725882	-79.315572	17510.0	430.0	2.455740
1	York	Humewood-Cedarvale	M6C	43.693781	-79.428191	14365.0	530.0	3.689523
2	East Toronto	The Beaches	M4E	43.676357	-79.293031	21567.0	215.0	0.996893
3	Scarborough	Woburn	M1G	43.770992	-79.216917	53485.0	745.0	1.392914
4	North York	Hillcrest Village	M2H	43.803762	-79.363452	16934.0	220.0	1.299161
5	East York	Thorncliffe Park	M4H	43.705369	-79.349372	21108.0	305.0	1.444950
6	Scarborough	Scarborough Village	M1J	43.744734	-79.239476	16724.0	280.0	1.674241
7	North York	Bayview Village	M2K	43.786947	-79.385975	21396.0	410.0	1.916246
8	North York	Humber Summit	M9L	43.756303	-79.565963	12416.0	895.0	7.208441
9	York	Weston	M9N	43.706876	-79.518188	17992.0	1390.0	7.725656



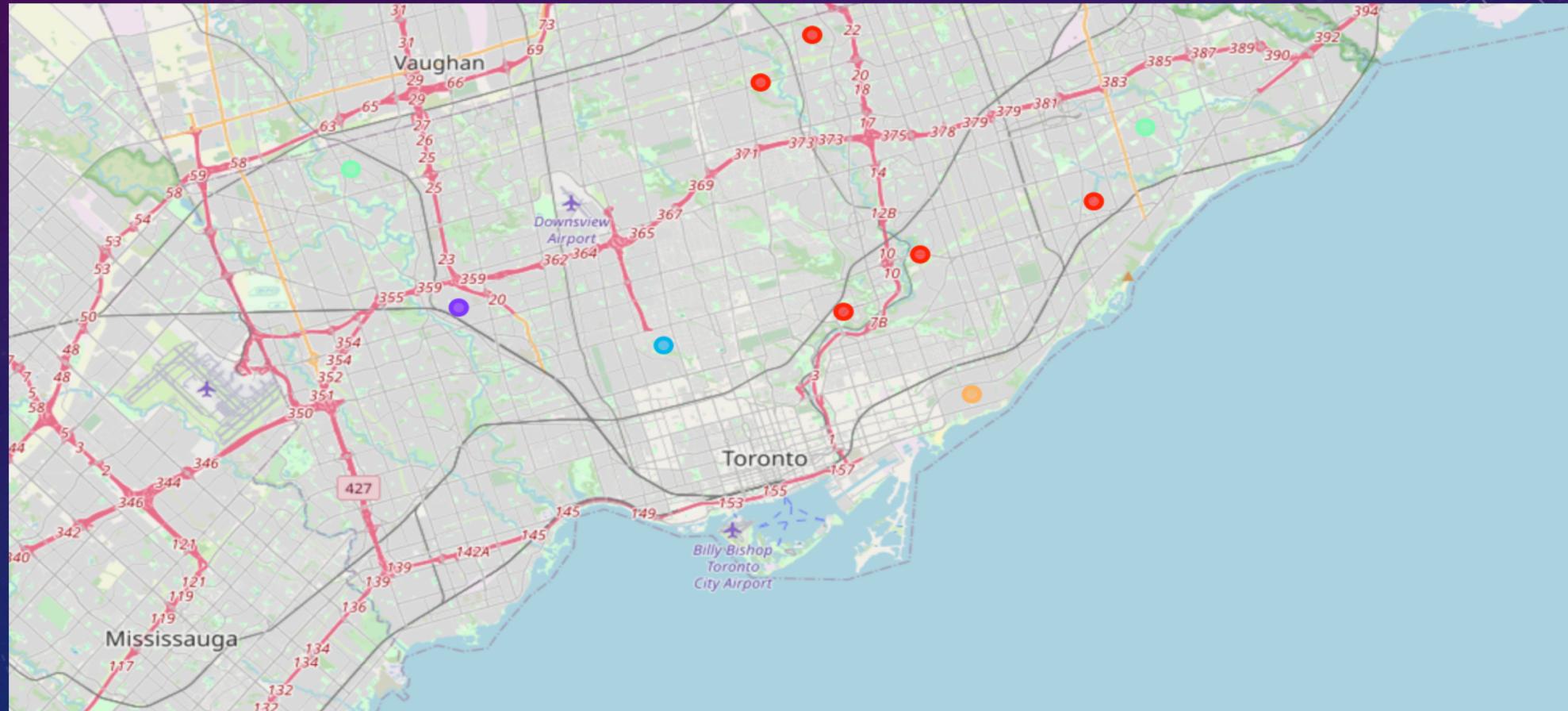
# VISUALIZING THE 10'S NEIGHBORHOOD WHERE LATIN AMERICAN PEOPLE LIVE IN



# HERE IS THE DATA WITH THE CLUSTER LABEL

	Cluster Label	Borough	Neighborhood	Postal Code	Latitude	Longitude	Total Population	Latin American	latin amer %	% Mexican Restaurants
0	0	North York	Victoria Village	M4A	43.725882	-79.315572	17510.0	430.0	2.455740	-0.444042
1	2	York	Humewood-Cedarvale	M6C	43.693781	-79.428191	14365.0	530.0	3.689523	2.804045
2	4	East Toronto	The Beaches	M4E	43.676357	-79.293031	21567.0	215.0	0.996893	0.748294
3	3	Scarborough	Woburn	M1G	43.770992	-79.216917	53485.0	745.0	1.392914	-0.444042
4	0	North York	Hillcrest Village	M2H	43.803762	-79.363452	16934.0	220.0	1.299161	-0.444042
5	0	East York	Thorncliffe Park	M4H	43.705369	-79.349372	21108.0	305.0	1.444950	-0.444042
6	0	Scarborough	Scarborough Village	M1J	43.744734	-79.239476	16724.0	280.0	1.674241	-0.444042
7	0	North York	Bayview Village	M2K	43.786947	-79.385975	21396.0	410.0	1.916246	-0.444042
8	3	North York	Humber Summit	M9L	43.756303	-79.565963	12416.0	895.0	7.208441	-0.444042
9	1	York	Weston	M9N	43.706876	-79.518188	17992.0	1390.0	7.725656	-0.444042

# VISUALIZING THE 5 CLUSTERS WE HAVE CREATED



## CLUSTER 0

- MID PERCENTAGE OF LATIN AMERICAN
- LOW PERCENTAGE OF MEXICAN RESTAURANTS

Cluster Label	Borough	Neighborhood	Postal Code	Latitude	Longitude	Total Population	Latin American	latin amer %	% Mexican Restaurants	
0	0	North York	Victoria Village	M4A	43.725882	-79.315572	17510.0	430.0	2.455740	-0.444042
4	0	North York	Hillcrest Village	M2H	43.803762	-79.363452	16934.0	220.0	1.299161	-0.444042
5	0	East York	Thorncliffe Park	M4H	43.705369	-79.349372	21108.0	305.0	1.444950	-0.444042
6	0	Scarborough	Scarborough Village	M1J	43.744734	-79.239476	16724.0	280.0	1.674241	-0.444042
7	0	North York	Bayview Village	M2K	43.786947	-79.385975	21396.0	410.0	1.916246	-0.444042

## CLUSTER 1

- HIGH PERCENTAGE OF LATIN AMERICAN
- LOW PERCENTAGE OF MEXICAN RESTAURANTS

Cluster Label	Borough	Neighborhood	Postal Code	Latitude	Longitude	Total Population	Latin American	latin amer %	% Mexican Restaurants	
9	1	York	Weston	M9N	43.706876	-79.518188	17992.0	1390.0	7.725656	-0.444042

In this Cluster, the percentage of Latin American people is high and the percentage of number of Mexican restaurants in these neighborhoods is very low, choosing this cluster would be one of the best options.

## CLUSTER 2

- MID PERCENTAGE OF LATIN AMERICAN
- HIGH PERCENTAGE OF MEXICAN RESTAURANTS

Cluster Label	Borough	Neighborhood	Postal Code	Latitude	Longitude	Total Population	Latin American	latin amer %	% Mexican Restaurants	
1	2	York	Humewood-Cedarvale	M6C	43.693781	-79.428191	14365.0	530.0	3.689523	2.804045

In this Cluster, the percentage of Latin American people is middle and the percentage of number of Mexican restaurants in these neighborhoods is high, choosing this cluster wouldn't be a right decision, because of the number of Mexican restaurants as competitors in these areas may lead to failure.

## CLUSTER 3

- HIGH PERCENTAGE OF LATIN AMERICAN
- LOW PERCENTAGE OF MEXICAN RESTAURANTS

Cluster Label	Borough	Neighborhood	Postal Code	Latitude	Longitude	Total Population	Latin American	latin amer %	% Mexican Restaurants	
3	3	Scarborough	Woburn	M1G	43.770992	-79.216917	53485.0	745.0	1.392914	-0.444042
8	3	North York	Humber Summit	M9L	43.756303	-79.565963	12416.0	895.0	7.208441	-0.444042

In this Cluster, the percentage of Latin American people is high and the percentage of number of Mexican restaurants in these neighborhoods is very low, choosing this cluster would be one of the best options in case of "Humber Summit" neighborhood.

## CLUSTER 4

- LOW PERCENTAGE OF LATIN AMERICAN
- LOW PERCENTAGE OF MEXICAN RESTAURANTS

Cluster Label	Borough	Neighborhood	Postal Code	Latitude	Longitude	Total Population	Latin American	latin amer %	% Mexican Restaurants	
2	4	East Toronto	The Beaches	M4E	43.676357	-79.293031	21567.0	215.0	0.996893	0.748294

## Conclusion

After all of the analysis above, we will come up with “Cluster Label” 1 is the best option we have. The high population of Latin American people who most probably prefer to enjoy their cuisines such as Mexican food, and the very low number of Mexican restaurants in this neighborhood, will satisfy our goal from this project and the possibility of achieving the expected profits is very high.

So, I would suggest to our clients to consider “Weston” neighborhood as the optimal location to establish a new Mexican restaurants, but if our clients are seeking to expand a franchised restaurants, I would recommend “Cluster Label 3” cause it has two neighborhoods with a good percentage of Latin American like “Humber Summit” and “Woburn” neighborhoods.