Choosing the leading place to open up a Mexican Restaurant within the Toronto Area

Problem to solve

Toronto's competitive gastronomy scene is an amazing one as it is a clash of different chefs and restaurateurs who always bring individuals brand-new places and cuisines to try. But, where is the leading place to open up a Mexican restaurant within the noteworthy Toronto Area?

Background

Since Downtown Toronto is exceptionally ambitious in terms of the restaurant domain, my client needs an understanding of the market in order to choose in which neighborhood to set up this trustworthy Mexican diner.

Data to analyze

The project will utilize freely accessible information from Wikipedia and Foursquare API

The center of this venture will be the Downtown Toronto neighborhoods that will be analyzed accordingly.

The Foursquare API will be used to get the geological area information for Downtown Toronto, and data will be utilized to investigate the eatery within the neighborhoods.
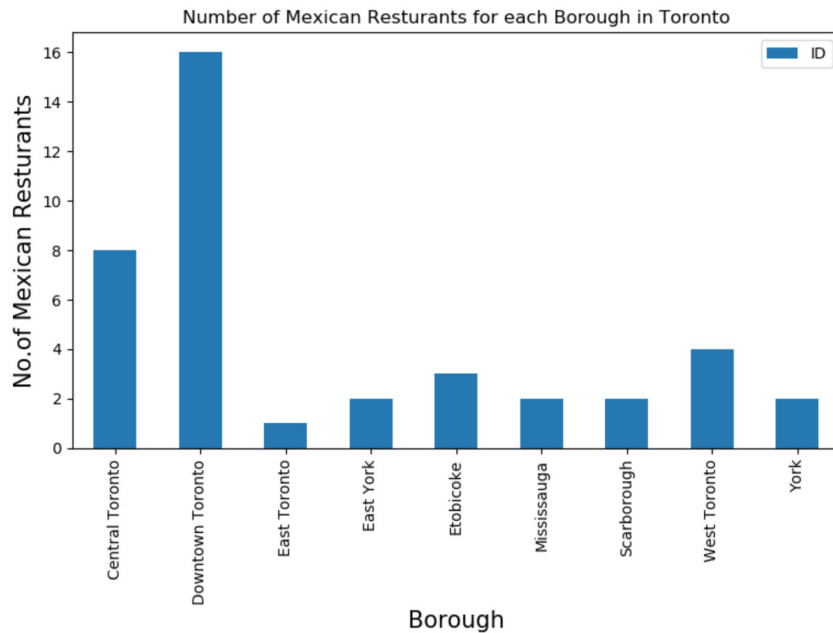
The restaurants will give the categories required for the investigation and these will be utilized to decide the reasonability of the chosen areas for the Mexican food establishment.

Methodology

1. Scraping data from wikipedia
2. Getting the coordinates of the target place.
3. Getting the list of neighborhoods and their coordinates.
4. Eliminating some of the boroughs.
5. Exploring the most visited venues in the target localities.
6. Clustering the localities with k-mean algorithm.
7. Analyzing the clusters formed.

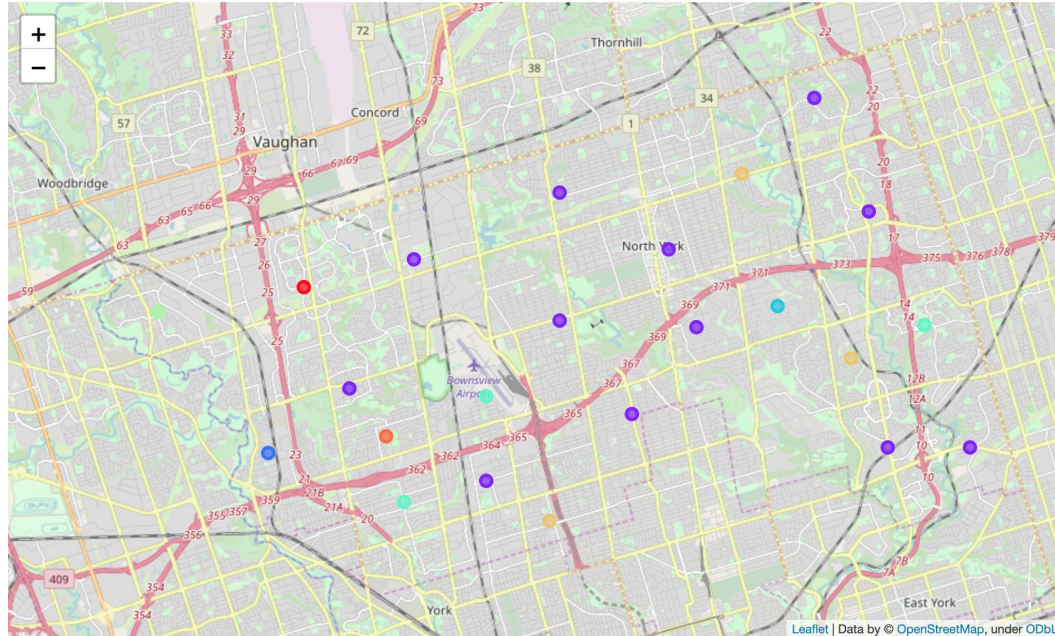# Eliminating Boroughs with open Mexican Restaurants

Number of Mexican Resturants for each Borough in Toronto

Wikipedia to choose the RIGHT Borough - North York

Ethnic groups in North York (2016) Source: 2016 Canadian Census[10]		Population	%
Ethnic origins	European	349,150	40.6%
	East Asian	123,280	14.3%
	Southeast Asian	85,115	9.9%
	Black	84,415	9.8%
	South Asian	75,995	8.8%
	Middle Eastern	49,060	5.7%
	Latin American	35,840	4.2%
	Aboriginal	7,035	0.8%
	Other	4,165	0.5%
Total population		869,401	100%

Visible minority and Aboriginal population[30][31][32]		Population (2016)	% of total population (2016)	Population (2011)	% of total population (2011)	Population (2006)	% of total population (2006)
European (White)		1,282,750	47.7%	1,292,365	50.2%	1,300,330	52.5%
Visible minority group	South Asian	338,965	12.6%	317,100	12.3%	298,370	12%
	Chinese	299,460	11.1%	278,390	10.8%	283,075	11.4%
	Black	239,850	8.9%	218,160	8.5%	208,555	8.4%
	Filipino	152,715	5.7%	132,445	5.1%	102,555	4.1%
	Latin American	77,160	2.9%	71,205	2.8%	64,855	2.6%
	Arab	36,030	1.3%	28,920	1.1%	22,485	0.9%
	Southeast Asian	41,645	1.5%	46,825	1.8%	37,495	1.5%
	West Asian	60,325	2.2%	50,235	2%	42,755	1.7%
	Korean	41,640	1.5%	37,225	1.4%	34,220	1.4%
	Japanese	13,410	0.5%	12,315	0.5%	11,965	0.5%
	Visible minority, n.i.e.	36,975	1.4%	33,670	1.3%	25,195	1%
	Multiple visible minorities	47,675	1.8%	37,920	1.5%	31,100	1.3%
Total visible minority population		1,385,850	51.5%	1,264,395	49.1%	1,162,630	46.9%
Aboriginal group	First Nations	14,380	0.5%	12,990	0.5%	9,130	0.4%
	Métis	7,270	0.3%	4,875	0.2%	3,650	0.1%
	Inuit	275	0%	305	0%	195	0%
	Aboriginal, n.i.e.	645	0%	920	0%	485	0%
	Multiple Aboriginal identities	500	0%	180	0%	145	0%
Total Aboriginal population		23,065	0.9%	19,265	0.7%	13,605	0.5%
Total population		2,691,665	100%	2,576,025	100%	2,476,565	100%

Clustering of North York with k-means algorithm

Second cluster is most interesting

```
#2nd Cluster
north_york_2.loc[north_york_2['Cluster Labels'] == 1, north_york_2.columns[[2] + list(range(6, north_york_2.shape[1]))]]
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	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue	11th Most Common Venue
0	Hillcrest Village	Golf Course	Athletics & Sports	Pool	Mediterranean Restaurant	Dog Run	Food Truck	Fried Chicken Joint	Comfort Food Restaurant	Concert Hall	Construction & Landscaping	Furnitur Home Sto
1	Henry Farm,Oriole,Fairview	Clothing Store	Coffee Shop	Fast Food Restaurant	Women's Store	Juice Bar	Toy / Game Store	Bakery	Japanese Restaurant	Food Court	Convenience Store	Liqu Sto
4	Willowdale South	Ramen Restaurant	Pizza Place	Sandwich Place	Shopping Mall	Restaurant	Coffee Shop	Café	Sushi Restaurant	Middle Eastern Restaurant	Indonesian Restaurant	Mo Thea
5	York Mills West	Park	Convenience Store	Bank	Women's Store	Discount Store	Comfort Food Restaurant	Concert Hall	Construction & Landscaping	Cosmetics Shop	Deli / Bodega	Departme Sto
6	Willowdale West	Pharmacy	Bank	Pizza Place	Butcher	Discount Store	Coffee Shop	Grocery Store	Food Court	Department Store	Frozen Yogurt Shop	Comf Fo Restaura
9	Flemingdon Park,Don Mills South	Coffee Shop	Beer Store	Asian Restaurant	Gym	Restaurant	Clothing Store	Concert Hall	Chinese Restaurant	Japanese Restaurant	Italian Restaurant	Dim Su Restaura
10	Wilson Heights,Downsview North,Bathurst Manor	Coffee Shop	Diner	Deli / Bodega	Ice Cream Shop	Bridal Shop	Pizza Place	Restaurant	Pharmacy	Sandwich Place	Convenience Store	Shoppi M
11	York University,Northwood Park	Furniture / Home Store	Caribbean Restaurant	Miscellaneous Shop	Massage Studio	Bar	Coffee Shop	Diner	Concert Hall	Construction & Landscaping	Convenience Store	Cosmet Sh
13	Downsview West	Grocery Store	Park	Hotel	Bank	Discount Store	Comfort Food Restaurant	Concert Hall	Construction & Landscaping	Convenience Store	Cosmetics Shop	De Bode
16	Victoria Village	Coffee Shop	Portuguese Restaurant	Hockey Arena	Intersection	Discount Store	Comfort Food Restaurant	Concert Hall	Construction & Landscaping	Convenience Store	Cosmetics Shop	De Bode
17	Lawrence Manor East,Bedford Park	Sandwich Place	Italian Restaurant	Coffee Shop	Restaurant	Greek Restaurant	Comfort Food Restaurant	Pizza Place	Pharmacy	Butcher	Café	Liqu Sto
18	Lawrence Manor,Lawrence Heights	Clothing Store	Furniture / Home Store	Boutique	Vietnamese Restaurant	Event Space	Miscellaneous Shop	Coffee Shop	Shoe Store	Accessories Store	Bar	Electron Sto

Humberlea and Emery Neighborhoods as recommendation

Have many restaurants so this is the area where people are heading to eat.

Have no Mexican Restaurant open.

North York is a Borough of the Toronto Area where half of the population of Latin America minorities is living, which is a strong argument to set up Mexican Restaurant there.

Thank you and feel free to ask questions