

The Battle of Neighborhoods

Part 1 : Introduction and Data Sections

Introduction

The point of this venture is to assist stakeholders, who are curious about opening a Mexican Restaurant in Toronto, Canada, to discover the ideal area to set up the Restaurant. There are a few components to be considered to open a eatery such as: Customers, Staffing, Competition, Menu etc. One of the foremost imperative components is finding the most excellent Area to open a Mexican Eatery. We ought to consider places aren't swarmed with eateries.

Uncommonly we are searching for a put with no Mexican Eateries in vicinity. So we gonna utilize information science to examination the Information of Toronto City. Too, we are going utilize the Foursquare API to investigate the neighborhoods. Preferences of each range will at that point be clearly communicated so that best conceivable last area can be chosen by partners.

Data

In this extend we'll get our information from Wikipedia website. Here is the connect "https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M". We are going discover in this connect a table comprising of three columns (Postal Codes, Boroughs, Neighborhoods), this table is our information that we gonna utilize to analyze Toronto City. But what almost Foursquare API?. How we gonna investigate the neighborhoods without Geological arranges for each neighborhood?. Here is the connect to download the scope and longitude for each postal code https://cocl.us/Geospatial_data After getting the information we require, these information require planning (Information Wrangling) to urge freed of any unuseful data. Since after scratching the information from the site and changing over it into pandas DataFrame, we'll discover a part of lost information (Not Relegated) for certain neighborhoods, due to need of record keeping.

OUR GOAL IS TO FIND THE OPTIMAL LOCATION TOESTABLISH 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

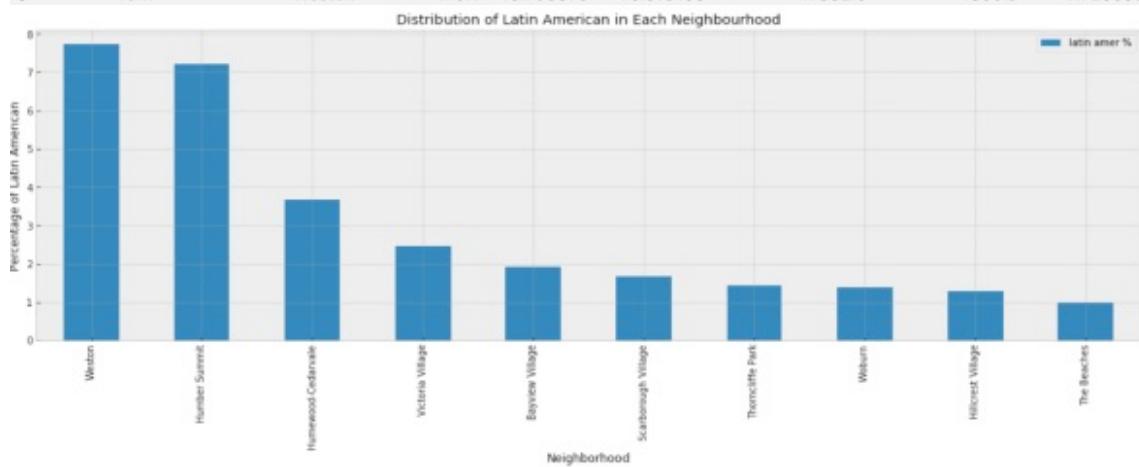
- ▶ • We will get data about the neighborhoods in Toronto City from Wikipedia website, here.
- ▶ • Geographical coordinates for each neighborhood to explore the City using Foursquare API,
- ▶ here.
- ▶ • The population information in the city to calculate the percentage of Latin American people
- ▶ in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

MERGING ALL THE INFORMATION IN ONE DATAFRAME

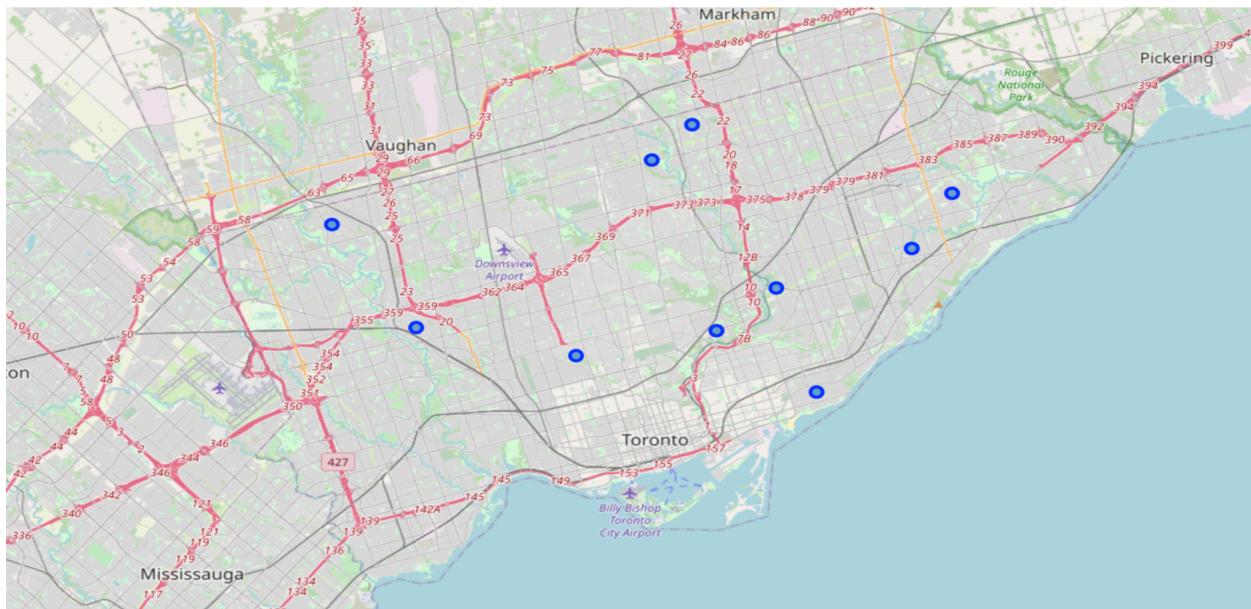
	Borough	Neighborhood	Postal Code	Latitude	Longitude	Total Population	Latin American
0	North York	Victoria Village	M4A	43.725882	-79.315572	17510.0	430.0
1	York	Humewood-Cedarvale	M6C	43.693781	-79.428191	14365.0	530.0
2	East Toronto	The Beaches	M4E	43.676357	-79.293031	21567.0	215.0
3	Scarborough	Woburn	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



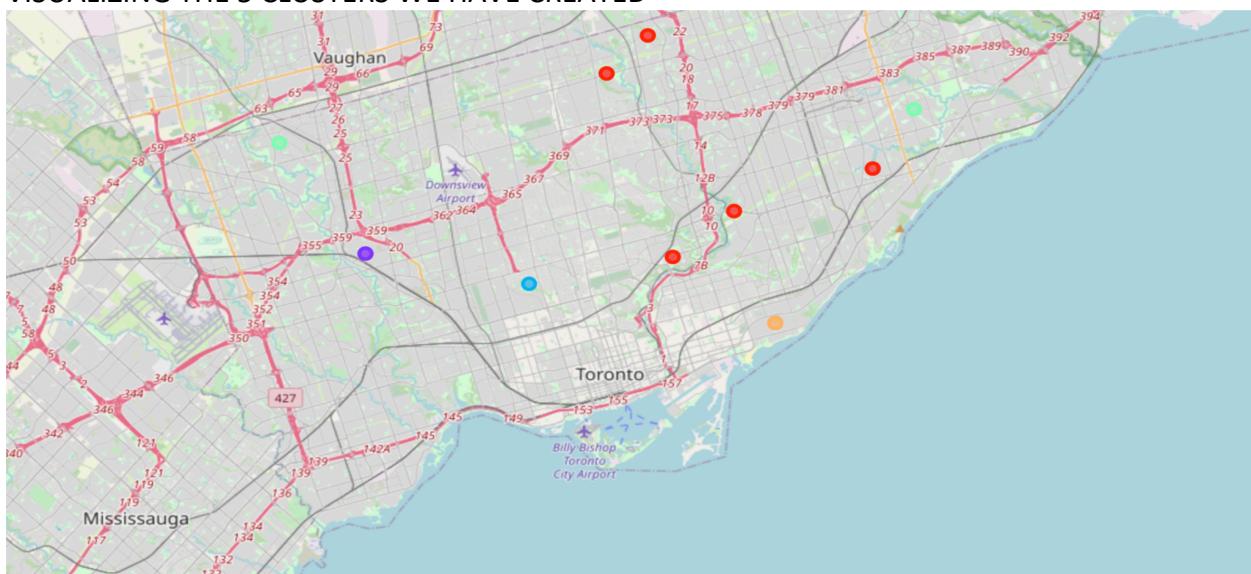
VISUALIZING THE 10'S NEIGHBORHOOD WHERE LATINAMERICAN PEOPLE LIVE IN



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



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.