PREDICTING OPTIMAL LOCATION FOR SYRIAN STYLE RESTAURANT INTORONTO

The problem

Higher the number of Syrian and Arabic style food and restaurant in the market and share the food culture in Toronto .

The main goal of this project is to find the best location to open the restaurant in Toronto so it is in a place that attracts a lot of people.

DATA ACQUISITION

The main goal :

we can see that the numbers of the Syrian refugees are increasing especially in Canada in Toronto.

the problem that I will be looking to solve is that there is not a lot of Syrian style restaurants in Toronto i will talk in the report about the best location that I can open the restaurant so I will be able to higher the Syrian food in the market .

for the business to be successful we will choose a location that will be away from the other restaurants and most important that the location is very close to downtown because as we know it's a very tourist popularity..

The data source :

- Toronto postal code data scraped from Wikipedia page

- Number of restaurants and their type and location in every neighborhood will be obtained using Foursquare API

- Coordinates of downtown Toronto will be obtained using Google latitude and longitude of the CN tower

The process of the data preparation and the cleaning

as we can see the data source has been refined to be developed the panda's data frame which will include the borough, neighborhood, postal code and finally the longitude .
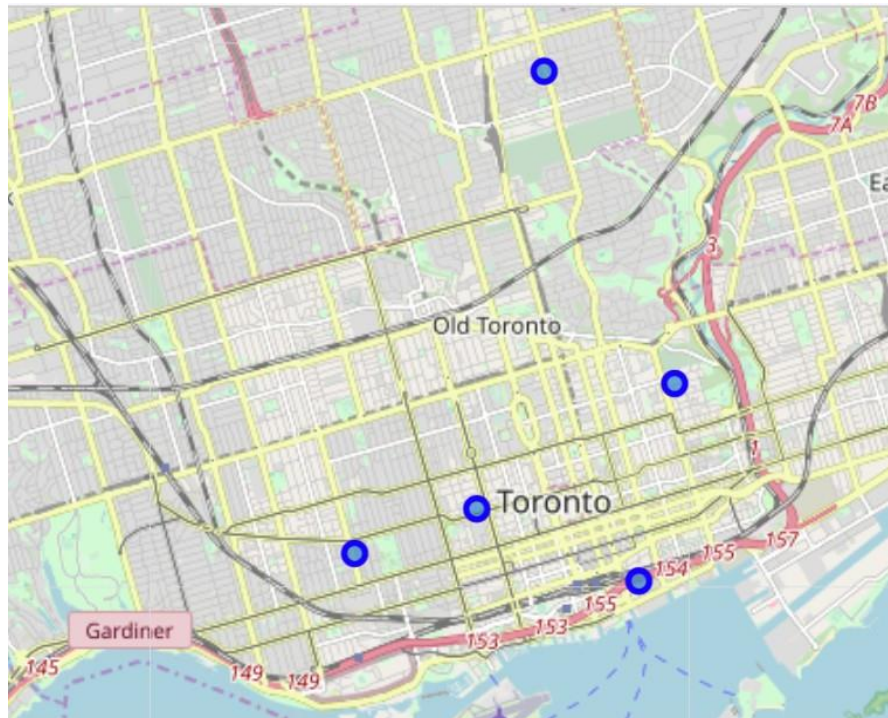
	Postcode	Borough	Neighbourhood	Latitude	Longitude
0	M1B	Scarborough	Rouge, Malvern	43.806686	-79.194353
1	M1C	Scarborough	Highland Creek, Rouge Hill, Port Union	43.784535	-79.160497
2	M1E	Scarborough	Guildwood, Morningside, West Hill	43.763573	-79.188711
3	M1G	Scarborough	Woburn	43.770992	-79.216917
4	M1H	Scarborough	Cedarbrae	43.773136	-79.239476

as you can see we found 10 best places of the neighborhood we found it by using the data of the Foursquare API location and after that, we refined so it will have only the neighborhoods that have a food category the best 10 one

	Postcode	Borough	Neighbourhood	Latitude	Longitude	Cluster Labels	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
7	M4S	Central Toronto	Davisville	43.704324	-79.388790	0	Pizza Place	Sandwich Place	Dessert Shop	Café	Italian Restaurant	Coffee Shop	Sushi Restaurant	Gourmet Shop	Deli / Bodega	Seafood Restaurant
11	M4X	Downtown Toronto	Cabbagetown, St. James Town	43.667967	-79.367675	0	Coffee Shop	Restaurant	Café	Flower Shop	Italian Restaurant	Bakery	Pub	Pizza Place	Pet Store	Breakfast Spot
16	M5E	Downtown Toronto	Berczy Park	43.644771	-79.373306	0	Coffee Shop	Cocktail Bar	Cheese Shop	Farmers Market	Bakery	Café	Beer Bar	Seafood Restaurant	Steakhouse	Irish Pub
26	M5T	Downtown Toronto	Chinatown, Grange Park, Kensington Market	43.653206	-79.400049	0	Café	Vegetarian / Vegan Restaurant	Chinese Restaurant	Bar	Mexican Restaurant	Coffee Shop	Dumpling Restaurant	Bakery	Vietnamese Restaurant	Dessert Shop
32	M6J	West Toronto	Little Portugal, Trinity	43.647927	-79.419750	0	Bar	Coffee Shop	Asian Restaurant	Vietnamese Restaurant	Café	Restaurant	French Restaurant	Cocktail Bar	Bakery	New American Restaurant
36	M6S	West Toronto	Runnymede, Swansea	43.651571	-79.484450	0	Coffee Shop	Pizza Place	Café	Sushi Restaurant	Italian Restaurant	Burrito Place	Food	Fish Market	Fish & Chips Shop	Smoothie Shop

exploratory analysis

as we said that we used the Folium maps so we can find the hotspots that will be perfect for the restaurant visualize the locations

HOTSPOT AREAS

as we can see that when we applied the explore URL with the Arabic Syrian style restaurant place category ID to every hotspot of the restaurant we can see that the result is that there isn't a lot of results close to the hotspots

we can see that the parameters that were in the URL that is limit the results to be 500m radius and allow for 100 results

we can see from the result that there are not many results near me and told me to try something more general, reset your filters, or expand the search area.

finally, we can see that from the result we have that all the six restaurant hotspots don't have an Arabic Syrian style restaurant in the 500m radius, and all of them can be the perfect hotspots for us

RESULTS AND DISCUSSION

after a lot of research, we found the CN tower, or Canadian National Tower that has been built by a railway company of the same name is the main tourist attraction of Downtown Toronto so the Berczy Park is the perfect place to open the restaurant but we have our own rules the restaurant hotspot location should be 10 or more food category places provided by Foursquare API It does not have many Syrian style restaurants in a 500m radius is the closest to our chosen tourist attraction, the CN Tower.

Conclusion

as we know how much the Arabic Syrian restaurants are not very common in Toronto like the other city's

so after all the work we think that the Berczy Park is the perfect place for the restaurants it's a great spot and it will help us a lot to make the type of food higher in the market and the place don't have a lot of same style of the restaurant so it's perfect and it will attract a lot of people