

Introduction: Business Problem

In this project, we are going to look for an optimal location to open a new Italian restaurant. Pizza and Pasta are one of the most bought dishes in Toronto originating from Italy. Toronto is the fourth largest home to Italians with a population of over 500k, there are numerous opportunities to open a new Italian restaurant. This report can provide a reference for stakeholders who are interested in opening a new restaurant in Toronto, Canada.

Target Audience

Business owners who want to open a new Restaurant or grow their current business.

Data overview

There are 3 data sources for this project:

- ❖ The list of neighbourhoods in Toronto (via Wikipedia),
- ❖ The Geographical location of the neighbourhoods (via Geocoder package)
- ❖ The Venue data pertaining to Italian restaurants (via Foursquare).

Toronto Neighbourhoods via Wikipedia

https://en.wikipedia.org/w/index.php?title=List_of_postal_codes_of_Canada:_M&oldid=1011037969

This Wikipedia site provide all the necessary information about the neighbourhoods. It includes the postal code; the borough; the name of the neighbourhoods in Toronto. Since the data is not in a format that is suitable for analysis, scraping of the data must be performed.

	Postal Code	Borough	Neighborhood
0	M3A	North York	Parkwoods
1	M4A	North York	Victoria Village
2	M5A	Downtown Toronto	Regent Park, Harbourfront
3	M6A	North York	Lawrence Manor, Lawrence Heights
4	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government

Picture 1: The scraped data from the Wikipedia site

Geographical Location data

The second source of data provide us with the Geographical coordinates of the neighbourhoods with the respective Postal Codes of city Toronto. The Geographical coordinates (latitude and longitude) were added to the neighbourhood data frame.

	Postal Code	Borough	Neighbourhood	Latitude	Longitude
0	M3A	North York	Parkwoods	43.7545	-79.3300
1	M4A	North York	Victoria Village	43.7276	-79.3148
2	M5A	Downtown Toronto	Regent Park, Harbourfront	43.6555	-79.3626
3	M6A	North York	Lawrence Manor, Lawrence Heights	43.7223	-79.4504
4	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.6641	-79.3889

Picture 2: The geographical data for neighbourhood

Venue data

The Foursquare API helps us to retrieve information about the Venue, Venue category with their longitudes and latitudes. The call returns a JSON file and we need to turn that into a data-frame.

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Regent Park, Harbourfront	43.6555	-79.3626	Tandem Coffee	43.653559	-79.361809	Coffee Shop
1	Regent Park, Harbourfront	43.6555	-79.3626	Roselle Desserts	43.653447	-79.362017	Bakery
2	Regent Park, Harbourfront	43.6555	-79.3626	Figs Breakfast & Lunch	43.655675	-79.364503	Breakfast Spot
3	Regent Park, Harbourfront	43.6555	-79.3626	The Yoga Lounge	43.655515	-79.364955	Yoga Studio
4	Regent Park, Harbourfront	43.6555	-79.3626	Body Blitz Spa East	43.654735	-79.359874	Spa

Picture 3: The Venue data from Foursquare