

IBM Applied Data
Science Capstone Report

EVALUATING LOCATIONS FOR A NEW
ELEGANT MODERN CHIC RESTAURANT IN
TORONTO POPULAR NEIGHBOURHOODS
BASED ON DEMOGRAPHICS, AND
LOCATIONS

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Introduction

The goal of the project is to find a suitable location for new elegant modern chic restaurant & bar within the popular neighborhoods in Toronto.

Business Problem

There is a demand for a new elegant modern chic restaurant that will serve delicious mouth-watering meals in a city of Toronto, Canada. Investors/Restaurateurs are interested in a location with high foot and car traffic and low competition that will help to maximize the profit on investment. The plan is to have a restaurant that will provide excellent customer service and serve international-inspired cuisine lunch and supper meals.

Targeted customers: middle and upper class

Audience & Stakeholders: restaurateurs/investors

Data

This project will extract insight from data to shortlist the best locations to open a new elegant modern chic restaurant with a bar in Toronto. The high foot and car traffic, accessibility, competition from similar kind of restaurant as well as the average income are used as criteria to find a suitable location. Thus, the project will utilize data for a list of neighborhood in the city of Toronto and demographic data.

1. The demographic data from Toronto neighbourhood profiles csv files for 2016 census: https://ckan0.cf.opendata.inter.prod-toronto.ca/download_resource/ef0239b1-832b-4d0b-a1f3-4153e53b189e?format=csv. The data will be cleaned and transformed when necessary before they are combined with other data to find a suitable location for a new restaurant. In this case, we are interested in demographics data for Toronto neighborhoods specifically population, average income, and density.
2. The list of postal code, neighbourhood and borough will be scrapped from Wikipedia page: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M using beautiful –soup. The list was created more than 10 years ago and it is using combination of official and unofficial neighbourhood name, as well as miss neighbourhood. This list will be cleaned before it is used. The list is also missing neighbourhoods which are listed on official list of neighbourhoods from Toronto neighbourhood profiles file. The missing neighbourhoods along with their postal code and borough will also be appended to this list.
3. The list of geographical coordinates (longitude and latitude) of each postal code: http://cocl.us/Geospatial_data for the neighborhoods in Toronto. The location latitude and longitude will be used in foursquare to find more information.
4. The Foursquare API will be used to retrieve the list of most popular top 50 venues for each of the selected popular neighborhoods location in Toronto within a radius of 1.5 km.