

A nighttime photograph of a city skyline, likely Toronto, with numerous skyscrapers illuminated by various lights. The lights are reflected in the calm water in the foreground. The sky is a deep blue, and the overall scene is vibrant and urban.

# **Capstone Project**

## **The Battle of Neighborhoods**

### **Toronto Franchise Expansion**

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# 1. Introduction

## 1.1 Background

Toronto is the financial capital and one of the most famous cities in Canada. Hence, it attracts and hosts a variety of different businesses, store chains and franchises. Some of them they have plans for a further international expansion in other key cities around the world with top priority being New York in the USA. The owners and stakeholders of these businesses want to minimize the risk of their investments and maximize their potential returns. For this reason, it would be of a great interest to them to be able to identify whether the two cities are similar and if yes, which specific areas of the cities should prioritize for their selection.

The objective of this analysis is twofold. First, we aim to answer the question of whether Toronto and New York have similar neighborhoods with the same characteristics. Secondly, to develop a consulting tool able to propose the most promising areas in New York for a particular type of business that is performing well in Toronto.

## 1.2 Audience

The audience of this analysis is chain store and franchise owners in Toronto, who are willing to expand their businesses in New York. This tool aims to work best for businesses with physical presence (brick & mortar stores) and not online services or stores. However, there is no limitation on the type of business the tool can support.

# 2. Data

In this analysis we use the following data types:

- Population and Age Distribution of the two cities [1] [2]
- The geographical coordinates of New York neighborhoods [3]
- The geographical coordinates of Toronto neighborhoods [4]
- Foursquare API to retrieve the available venues for each neighborhood

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The demographic information will help us to establish a good understanding of the population size of the two cities, but also the distribution of the various age groups. This will serve us as the first insight to how similar or not the two cities are. The geographical coordinates of the cities' neighborhoods normally can be retrieved from the goopy package. However, since this package is unreliable most of the time, we will procure this information from existing files. Finally, based on the geographical coordinates collected on the previous step, we will use the API provided by Foursquare to retrieve the venues for each city's neighborhoods. Regarding the venues, we will be able to identify how many venues each neighborhood has, what type of venues, the exact location of each venue, ratings from customers and even comments. After targeting the most promising areas for expansion of a business, this data can also be used to identify and monitor the competitive landscape. Namely, how many businesses of the same type exist and how well they perform.

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# Bibliography

1. [https://en.wikipedia.org/wiki/Demographics\\_of\\_New\\_York\\_City](https://en.wikipedia.org/wiki/Demographics_of_New_York_City)
2. [https://en.wikipedia.org/wiki/Demographics\\_of\\_Toronto](https://en.wikipedia.org/wiki/Demographics_of_Toronto)
3. Coursera Lab Server: "newyork\_data.json"
4. [https://cocl.us/Geospatial\\_data](https://cocl.us/Geospatial_data)