**Capstone Project – Clustering the Neighborhoods of Downtown Toronto**

**The Battle of Neighborhoods (Week 1)**

**Description of the problem and a discussion of the background**

Toronto is the capital city of the [Canadian province](https://en.wikipedia.org/wiki/Provinces_and_territories_of_Canada) of [Ontario](https://en.wikipedia.org/wiki/Ontario). With a recorded population of 2,731,571 in 2016, it is the [most populous city in Canada](https://en.wikipedia.org/wiki/List_of_the_100_largest_municipalities_in_Canada_by_population) and the [fourth most populous city in North America](https://en.wikipedia.org/wiki/List_of_North_American_cities_by_population). The city is the anchor of the [Golden Horseshoe](https://en.wikipedia.org/wiki/Golden_Horseshoe), an urban agglomeration of 9,245,438 people (as of 2016) surrounding the western end of [Lake Ontario](https://en.wikipedia.org/wiki/Lake_Ontario), while the [Greater Toronto Area](https://en.wikipedia.org/wiki/Greater_Toronto_Area) (GTA) proper had a 2016 population of 6,417,516. Toronto is an international center of business, finance, arts, and culture, and is recognized as one of the most [multicultural](https://en.wikipedia.org/wiki/Multicultural) and [cosmopolitan](https://en.wikipedia.org/wiki/Cosmopolitanism) cities in the world.

Downtown Toronto is the main [central business district](https://en.wikipedia.org/wiki/Central_business_district) of [Toronto](https://en.wikipedia.org/wiki/Toronto), [Ontario](https://en.wikipedia.org/wiki/Ontario), Canada. Located entirely within the district of [Old Toronto](https://en.wikipedia.org/wiki/Old_Toronto), it is approximately 17 square kilometers in area, bounded by [Bloor Street](https://en.wikipedia.org/wiki/Bloor_Street) to the northeast and Dupont Street to the northwest, [Lake Ontario](https://en.wikipedia.org/wiki/Lake_Ontario) to the south, the [Don Valley](https://en.wikipedia.org/wiki/Don_Valley_River) to the east, and [Bathurst Street](https://en.wikipedia.org/wiki/Bathurst_Street,_Toronto) to the west. It is also the location of the [municipal government of Toronto](https://en.wikipedia.org/wiki/Municipal_government_of_Toronto) and the [Government of Ontario](https://en.wikipedia.org/wiki/Government_of_Ontario).

The area is made up of Canada's largest concentration of skyscrapers and businesses that form Toronto's skyline. Downtown Toronto has the third most skyscrapers in North America exceeding 200 meters (656 ft) in height, behind [New York City](https://en.wikipedia.org/wiki/New_York_City) and [Chicago](https://en.wikipedia.org/wiki/Chicago).

Having that said, opening businesses in big cities is of course a good investment but it would be a bit risky to go directly and open any kind of business without some analysis to take the right decision and to choose the right place and the right kind of business where I will focus on opening a restaurant business in Toronto

I chose Downtown Toronto Borough within Toronto to explore its neighborhoods where I’m going in this project to provide some insight for those who are interested in opening a restaurant business in Downtown Toronto by choosing the best neighborhood(s) and best type of restaurants, in order to increase the probability that the business will succeed

**Data Description**

For the purpose of this project I used the below data sources:

* Information about Toronto from <https://en.wikipedia.org/wiki/Toronto>
* Information about Downtown Toronto from <https://en.wikipedia.org/wiki/Downtown_Toronto>
* List of Borough and Neighborhoods by postal code from <https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M>
* geographical coordinates of each postal code from [http://cocl.us/Geospatial\_data](https://cocl.us/Geospatial_data)
* **Foursquare API** to get the most common venues for the neighborhoods in Downtown Toronto