**Capstone Project - The Battle of the Neighborhoods (Week 1)**

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**Introduction: Business Problem**

As an immigrant to Canada and I did not visit it before so I have no realistic knowledge about the country that it will be my home country, I want to choose the city that I will live in and the location of my home in that city .

Each of city and location have their considerations.

**City** must have minimum rate of crime especially hate crime.

**Location** has to have the necessary venues close to where I live because I am new comer and have no means of transport under my hand around the clock.

**Data****and data sources.**

1. **Canada main and largest cities** .

We can get it from Wikipedia.

**Source** :URL[: https://en.wikipedia.org/wiki/List\_of\_the\_100\_largest\_population\_centres\_in\_Canada'](https://d.docs.live.net/95618f9dd1e9fc4f/Documents/:%20https:/en.wikipedia.org/wiki/List_of_the_100_largest_population_centres_in_Canada')

1. **Crime rate** ,we can get it from Canada government web site under the name of ‘Police-reported Crime Severity Index and crime rate, by census metropolitan area, 2019’

**Source** :URL:’ [Police-reported Crime Severity Index and crime rate, by census metropolitan area, 2019 (statcan.gc.ca)](https://www150.statcan.gc.ca/n1/daily-quotidien/201029/t003a-eng.htm)’

1. **Hate Crime rate** ,we can get it from Canada government web site under the name of ‘Police-reported hate crime, number of incidents and rate per 100,000 population, Census Metropolitan Areas’

**Source** : URL:’<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3510019101>’

1. **Canada cities** and their geographical **coordinates**, Population and density we can download the csv file from simplemaps.com website.

**Source** URL:’<https://simplemaps.com/data/canada-cities>’

1. Venues in neighbourhood We can use **four square** API.

**Methodology** to extract and prepare data :

* Pandas with read\_html to read and convert included table to dataframe
* Beautiful soup to for web scraping.
* Pandas for cleaning and filling nulls.

**Stakeholders: People are willing to come to Canada for immigration.**