

# Capstone Project- Little India in Toronto

## Opening an Indian Restaurant in Toronto

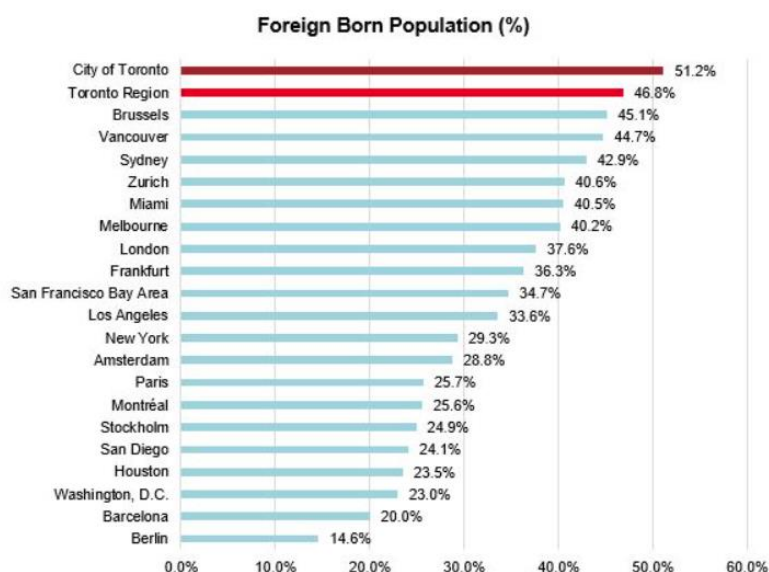
### 1) Business Problem:

The purpose of this project is to help investors establish which neighbourhood in Toronto would be the best to open an Indian restaurant.

The aim will be to explore various neighbourhoods and demographics of those neighbourhoods in order to arrive at an answer to the question “which place/s would be the most ideal to open an **Indian restaurant?**”

Toronto ranks as the 3rd most diverse city in the world, with over half its residents born abroad.

For one thing, the proportion of our population that's foreign born remains higher than just about any major city in the world. In the City of Toronto, 51% of residents were not born in Canada and for the Toronto Region as a whole, that figure is 47%. This is higher than any other metro region in North America, and higher than Greater London, Sydney, Melbourne, Paris, and Amsterdam (see figure below). The only North American cities with higher foreign born rates than Toronto are the Cities of Miami and Miami Beach. Yet unlike the Toronto Region, where just about every corner of the world is represented, more than three quarters of immigrants in Miami hail from Latin America.



Over 250 ethnicities and 170 languages are represented in the Toronto Region, and roughly half the population identifies as a visible minority (defined as either Asian, Black, Latin American, or Arab). There are 16 countries that have over 50,000 people represented in the Toronto Region, including 337,000 from India, 300,000 from China, and 200,000 from the Philippines. To put this in perspective, there are more people in the Toronto Region that were born in Asia than there are living in the Cities of San Francisco or Dallas. There are nearly twice as many people living in the Toronto Region that were born in Greece than there are living in Santorini.

Country of Birth	Number of People in the Toronto Region
India	336,835
China	303,900
Philippines	205,365
Pakistan	125,685
United Kingdom	124,615
Italy	107,575
Jamaica	107,280
Sri Lanka	105,015
Hong Kong	103,220
Iran	76,860
Portugal	73,430
Guyana	72,305
United States	66,250
Poland	62,005
Vietnam	61,435
South Korea	53,230

It is often touted as the most multicultural city on the globe. This means generally the population would be open to diverse food offerings.

## **2)Data Set:**

Our data will originate from three main sources, namely:

- **Open-source dataset of Toronto**

The dataset will be downloaded from

[https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_of\\_Canada:\\_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M)

From this dataset, we would get information of the locations in Toronto relating to:

- Postal code
- Borough
- Neighbourhood

- **Geocoder package**

This will be used to source geographical coordinates of locations i.e., latitude and longitude.

- **Foursquare API**

For sourcing information related to the venues such as:

- Name of the venue
- Latitude of the venue
- Longitude of the venue
- Most rated venues
- Most popular venues
- Most popular venues per cluster grouping

The data would be visualized and presented to the user, in this case, the investor looking to open the restaurant in Toronto. Based on the findings, we would then recommend the best location(s) to open the restaurant.

### **3)Approach/Methodology:**

We will explore the neighbourhoods in Toronto, find out which venues are most popular and which restaurants in particular are most popular. We will segment and group the neighbourhoods to explore the venues further. To do this, we will use **K-Means clustering**.

The aim of this is to find out how popular Indian Restaurants are, if at all, and what the trend is of restaurants that are more popular with the general population