

A decorative network diagram in the top-left corner of the slide. It features a complex web of interconnected nodes and lines. The nodes are represented by small circles, some of which are solid blue, some are solid grey, and some are hollow with a blue outline. The lines connecting them are thin and grey, creating a mesh-like structure.

# Analysis of Building Indian Restaurant in Toronto

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A decorative network diagram in the top-left corner of the slide. It consists of a complex web of interconnected nodes and lines. The nodes are represented by circles of varying sizes, some with solid centers and others with dashed outlines. The lines connecting them are thin and grey, creating a dense, organic structure that resembles a molecular or biological network.

1.

## **Background of the Project under discussion**

# Project Background

We will endeavor to find the best location for a restaurant in this project. A lot of firms overlook the most important aspects of a successful business location. A good location can help a company's long-term performance greatly. It can cost millions of dollars in lost personnel, productivity, and capital if you choose the wrong one. As a result, if the company can identify an ideal site for a startup, it will be extremely valuable (specifically a restaurant in our case). This study will concentrate on starting an Indian restaurant in Toronto, Canada.

## Key Questions:

1. What qualities do you look for in a suitable business location for an Indian restaurant?
2. Is there any available space or land on which we can launch the restaurant business?

A decorative network diagram in the top-left corner of the slide. It features a complex web of interconnected nodes and edges. The nodes are represented by circles of varying sizes, some with solid dark gray centers and others with hollow white centers. The edges are thin gray lines connecting these nodes. The overall structure is dense and organic, resembling a molecular or biological network.

2.

## Data Available and Assumptions

# Data Available and Assumptions

We'll focus on places where there aren't any Indian restaurants yet. Naturally, company executives would want to know which areas would be ideal. The government, for census purposes, or the council, for tax purposes, might be interested.

The Postal Code of Toronto Ontario - Canada website (<https://www.zipcodesonline.com/2020/06/postal-code-of-toronto-in-2020.html>) has information about the postal code, borough, and neighborhood. It's the second table, and we'll scrape it with the help of the bs4 packages.



3.

## Analysis through “FourSquare API”

# Data Cleaning

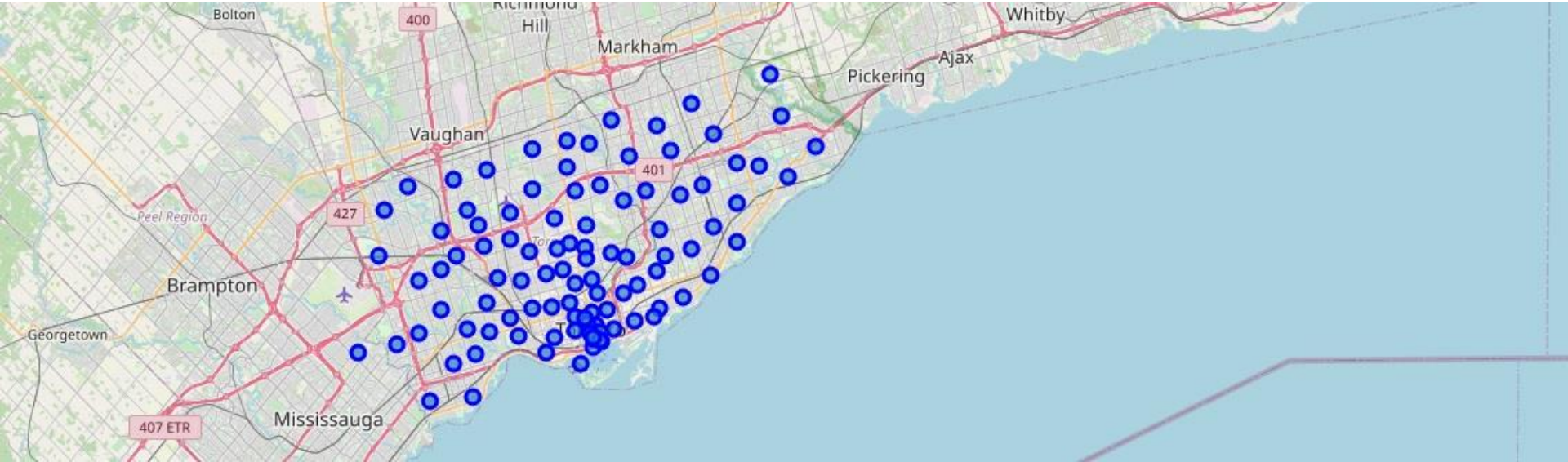
To begin with, the data contains blank rows. Second, because every string contains “\n” and blank value “ ”, we must eliminate these data. Finally, we discovered that some of the data contained the unicode ‘xa0,’ which we had to eliminate as well.

Following that, we had to join neighborhoods with the same postal code because the dataframe that contains latitude and longitude requires it. However, before we do so, consider Willowdale (M2M, M2N, M2R), Downsview (M3M, M3L, M3N), and Islington Avenue (M9A, M9B), which all have different postal codes in the same row. As a result, we correct this by adding rows based on the number of numerous postal codes.

Then we made the postal codes (every row) that contained all of the neighborhoods that belonged to that postal code and named it ‘gu’. Following that, we merged the two dataframes: one from the website (gu) and another from the Coursera dataframe (hi).

# Exploratory Data Analysis

For this section, we use the Foursquare API to find nearby venues. We are interested in the venue category, particularly Indian restaurants. Before we do that, it's a good idea to plot the 102 postal codes on a map using folium.





# Exploratory Data Analysis

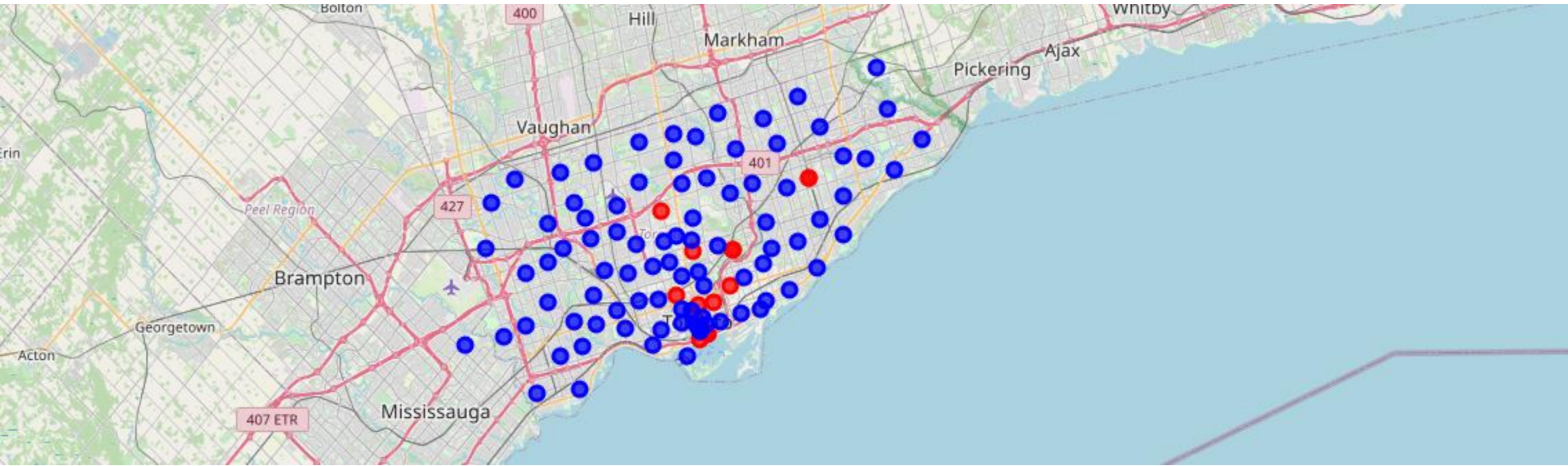
We can plot the neighborhoods that still lack Indian restaurants after retrieving the data via the Foursquare API. This is the area with Indian restaurants.



Leaflet

# Exploratory Data Analysis

Here are the red dots (which represent the Indian restaurants) and the blue dots (without the Indian restaurants).



# Result Analysis

As we observe, Toronto, Ontario, CN has only 14 Indian restaurants.

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
44	ScarboroughTownCentre, DorsetPark, WexfordHeights	43.757410	-79.273304	Kairali	43.754915	-79.276945	Indian Restaurant
46	ScarboroughTownCentre, DorsetPark, WexfordHeights	43.757410	-79.273304	Karaikudi Chettinad South Indian Restaurant	43.756042	-79.276276	Indian Restaurant
322	ThornccliffePark	43.705369	-79.349372	Iqbal Kebab & Sweet Centre	43.705923	-79.351521	Indian Restaurant
330	ThornccliffePark	43.705369	-79.349372	Hakka Garden	43.704578	-79.349770	Indian Restaurant
373	Riverdale, TheDanforthWest	43.679557	-79.352188	Sher-E-Punjab	43.677308	-79.353066	Indian Restaurant
475	Davisville	43.704324	-79.388790	Marigold Indian Bistro	43.702881	-79.388008	Indian Restaurant
537	Cabbagetown, St.JamesTown	43.667967	-79.367675	Butter Chicken Factory	43.667072	-79.369184	Indian Restaurant
606	ChurchandWellesley	43.665860	-79.383160	Kothur Indian Cuisine	43.667872	-79.385659	Indian Restaurant
941	BerczyPark	43.644771	-79.373306	Bindia Indian Bistro	43.648559	-79.371816	Indian Restaurant
986	CentralBayStreet	43.657952	-79.387383	Colaba Junction	43.660940	-79.385635	Indian Restaurant
1179	UnionStation, Torontolslands, HarbourfrontEast	43.640816	-79.381752	Indian Roti House	43.639060	-79.385422	Indian Restaurant
1420	LawrenceManorEast, BedfordPark,,	43.733283	-79.419750	The Copper Chimney	43.736195	-79.420271	Indian Restaurant
1445	TheAnnex, Yorkville, NorthMidtown	43.672710	-79.405678	Roti Cuisine of India	43.674618	-79.408249	Indian Restaurant
1649	StnAPOBoxes	43.646435	-79.374846	Bindia Indian Bistro	43.648559	-79.371816	Indian Restaurant

# Conclusion

In this project, I have analyzed the neighborhoods in Toronto, Canada those don't have Indian neighborhood using Foursquare API. We noticed that there are 190 neighborhood or 91 boroughs that are possible to open an Indian restaurants but only 14 of those already have Indian restaurants.

Thanks !!!