

## Introduction –

Recently there is a huge growth in food business and a lot of people are putting their money in opening restaurants. But one of the most crucial factors for any business to run is Location as well. Where the restaurant is located and is that place is famous for food. There are many such apprehensions.

To determining the most suitable location for the restaurant, I will segment the neighbourhoods and tell in which neighbourhood the greatest number of restaurants are there.

## Data –

We will find the best neighbourhood to open a new restaurant in Toronto.

1. Toronto Borough data set: I will be fetching this data from a Wikipedia page, which include the Postal Code, Borough & Neighbourhood data.
2. Geospatial Coordinate: This data includes the Latitude and Longitude for each postal code. These Longitude and Longitude will be used to map the placed on the MAP chart to see the segments.
3. Foursquare API data: We will find out the Category of places nearby each neighbourhood and predict which neighbourhood is best for opening a new restaurant.

## Methodology –

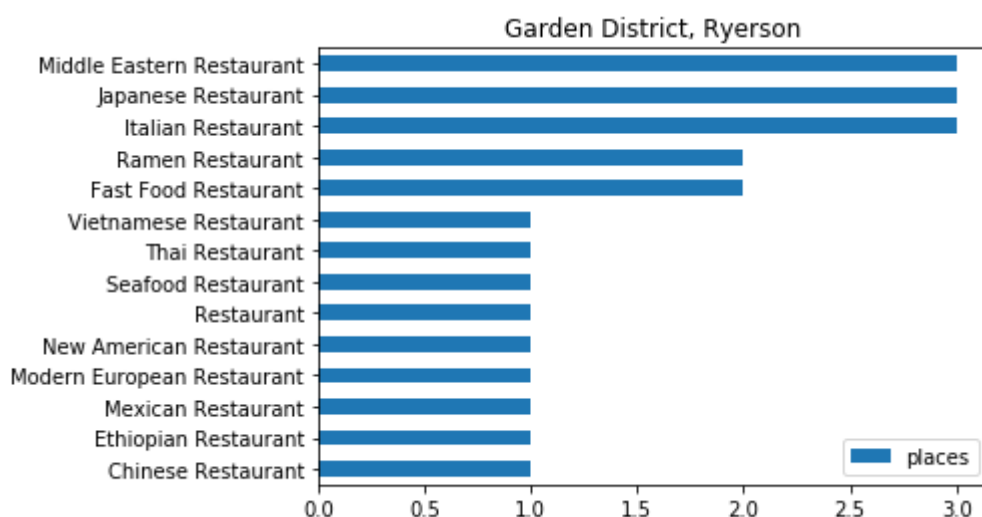
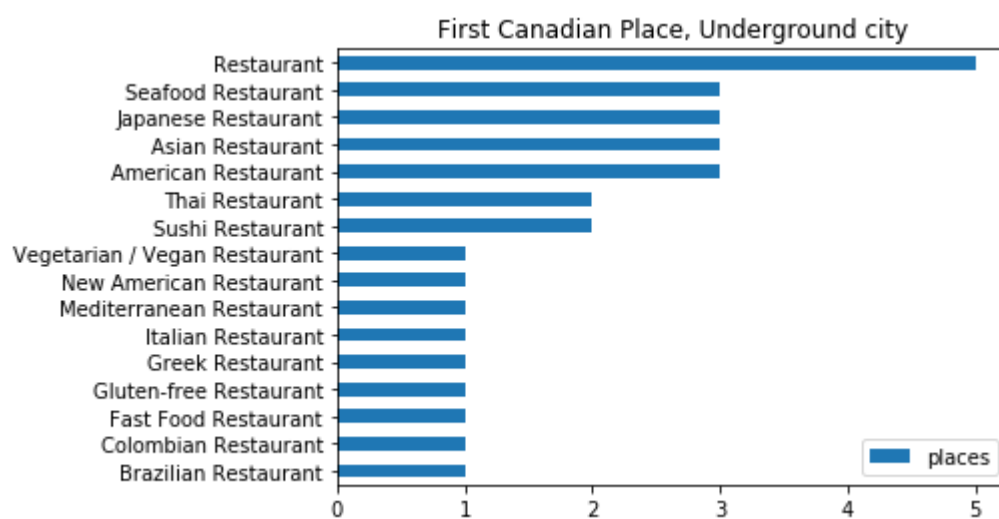
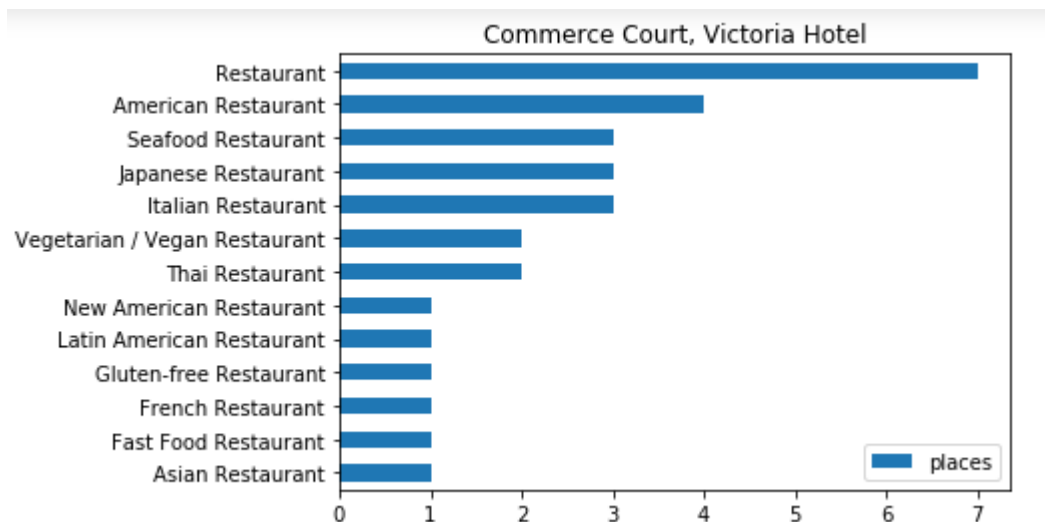
First, I gathered all the data required, then combine the data based upon the postal code. Using Google API and foursquare API I fetched the geometric coordinates and then nearby places with their categories.

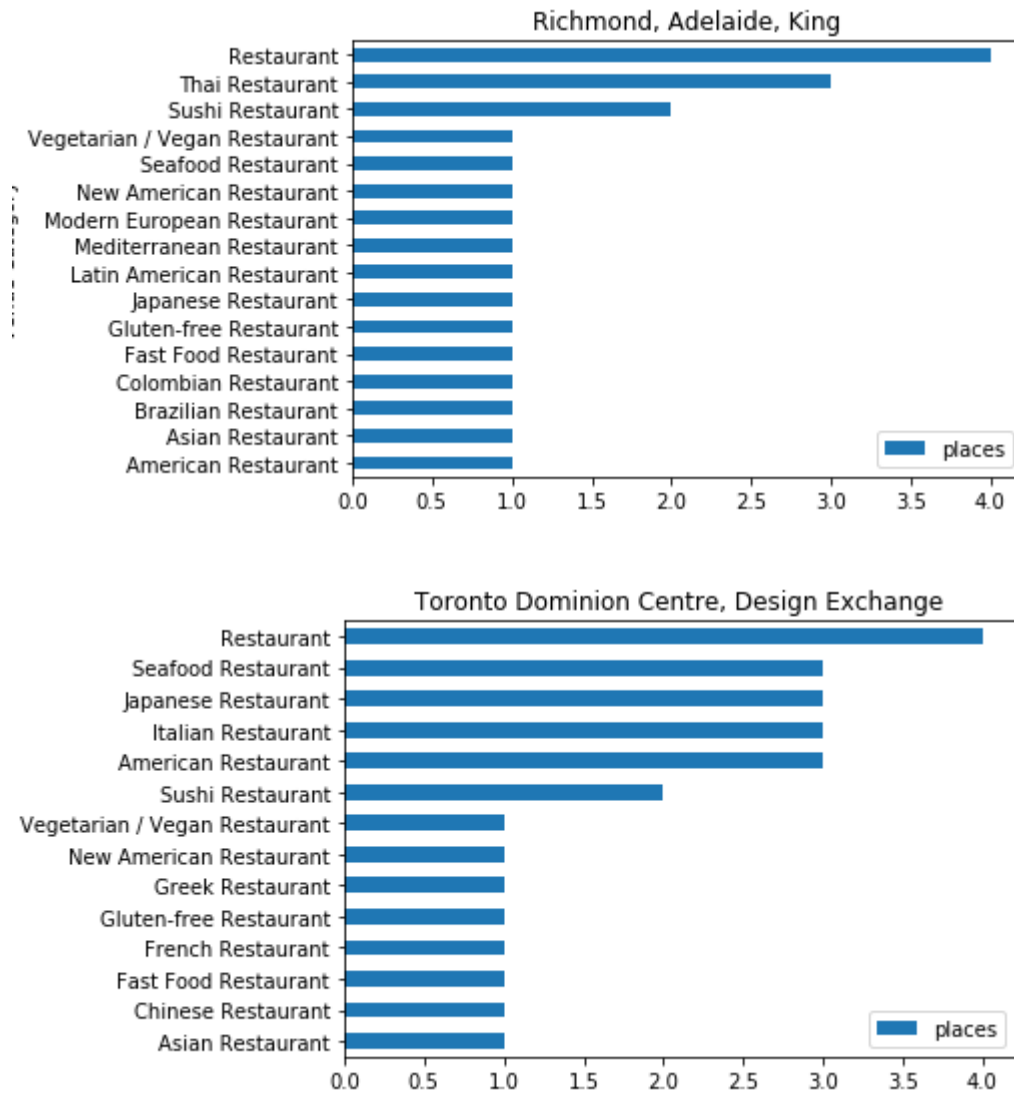
Then I filter out the top 5 places, where the greatest number of the restaurants are located. Then I did EDA on that data and show in graph that what different type of restaurants are present there in that neighbourhood.

```
In [71]: pd.DataFrame(toronto_venues_restaurant_top_5.groupby(['neighbourhood', 'venue_category']).count().reset_index())
```

Out[71]:

Venue Category	
Neighborhood	
Commerce Court, Victoria Hotel	30
First Canadian Place, Underground city	30
Garden District, Ryerson	22
Richmond, Adelaide, King	22
Toronto Dominion Centre, Design Exchange	26





Then I checked which are top common places near the Neighbours

Out[235]:	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
	0 Commerce Court, Victoria Hotel	Restaurant	American Restaurant	Seafood Restaurant	Italian Restaurant	Japanese Restaurant	Vegetarian / Vegan Restaurant	Thai Restaurant	Asian Restaurant	Fast Food Restaurant	French Restaurant
	1 First Canadian Place, Underground city	Restaurant	American Restaurant	Seafood Restaurant	Asian Restaurant	Japanese Restaurant	Thai Restaurant	Sushi Restaurant	Gluten-free Restaurant	New American Restaurant	Brazilian Restaurant
	2 Garden District, Ryerson	Italian Restaurant	Japanese Restaurant	Middle Eastern Restaurant	Fast Food Restaurant	Ramen Restaurant	Vietnamese Restaurant	Chinese Restaurant	Mexican Restaurant	Modern European Restaurant	New American Restaurant
	3 Richmond, Adelaide, King	Restaurant	Thai Restaurant	Sushi Restaurant	Latin American Restaurant	Vegetarian / Vegan Restaurant	Asian Restaurant	Brazilian Restaurant	Colombian Restaurant	Fast Food Restaurant	Gluten-free Restaurant
	4 Toronto Dominion Centre, Design Exchange	Restaurant	American Restaurant	Seafood Restaurant	Italian Restaurant	Japanese Restaurant	Sushi Restaurant	Fast Food Restaurant	Greek Restaurant	Vegetarian / Vegan Restaurant	Chinese Restaurant

Then I mapped the Neighbourhoods on the Map to easily identity the top 5 places where one can open a new restaurant

