

# **CAPSTONE PROJECT - THE BATTLE OF NEIGHBORHOODS**

**BY DHIWA KOSITTIRACHART**

# INTRODUCTION

Thai immigrants to Canada are primarily well-educated professionals working as bankers, dentists, doctors, nurses, computer technicians and engineers. Many of them closed businesses such as Thai restaurants or Muay Thai gyms, which has become popular in Canada.

Thai cooking places emphasis on lightly prepared dishes with strong aromatic components and a spicy edge. Thai chef McDang characterises Thai food as demonstrating "intricacy; attention to detail; texture; color; taste; and the use of ingredients with medicinal benefits, as well as good flavor", as well as care being given to the food's appearance, smell and context.

So as part of this project, we will list and visualize all major parts of Toronto that has popular Thai restaurants.

# DATA

- For this project we need the following data :
- Toronto,CA data that contains list Boroughs, Neighborhoods along with their latitude and longitude.
  - Data source : [https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_of\\_Canada:\\_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M) and get latitude,longitude from [https://cocl.us/Geospatial\\_data](https://cocl.us/Geospatial_data)
  - Description : This data set contains the required information. And we will use this data set to explore various neighborhoods of new york city.
- Thai resturants in each neighborhood of Toronto city.
  - Data source : Fousquare API
  - Description : By using this api we will get all the venues in each neighborhood. We can filter these venues to get only indian resturants.
- GeoSpace data
  - Data source : [https://github.com/jasonicarter/toronto-geojson/blob/master/toronto\\_topo.json](https://github.com/jasonicarter/toronto-geojson/blob/master/toronto_topo.json)
  - Description : By using this geo space data we will get the Toronto Borough boundaries that will help us visualize choropleth map.

# APPROACH

- Collect the postal code, borough, neighborhood of Toronto city data from wikipedia
- Collect latitude, longitude data from [https://cocl.us/Geospatial\\_data](https://cocl.us/Geospatial_data)
- Using FourSquare API we will find all venues for each neighborhood.
- Filter out all venues that are Thai Restaurants.
- Find rating, tips and like count for each Thai Restaurants using FourSquare API.
- Using rating for each restaurant, we will sort that data.
- Visualize the Ranking of neighborhoods using folium library(python)

## **Defined the problems**

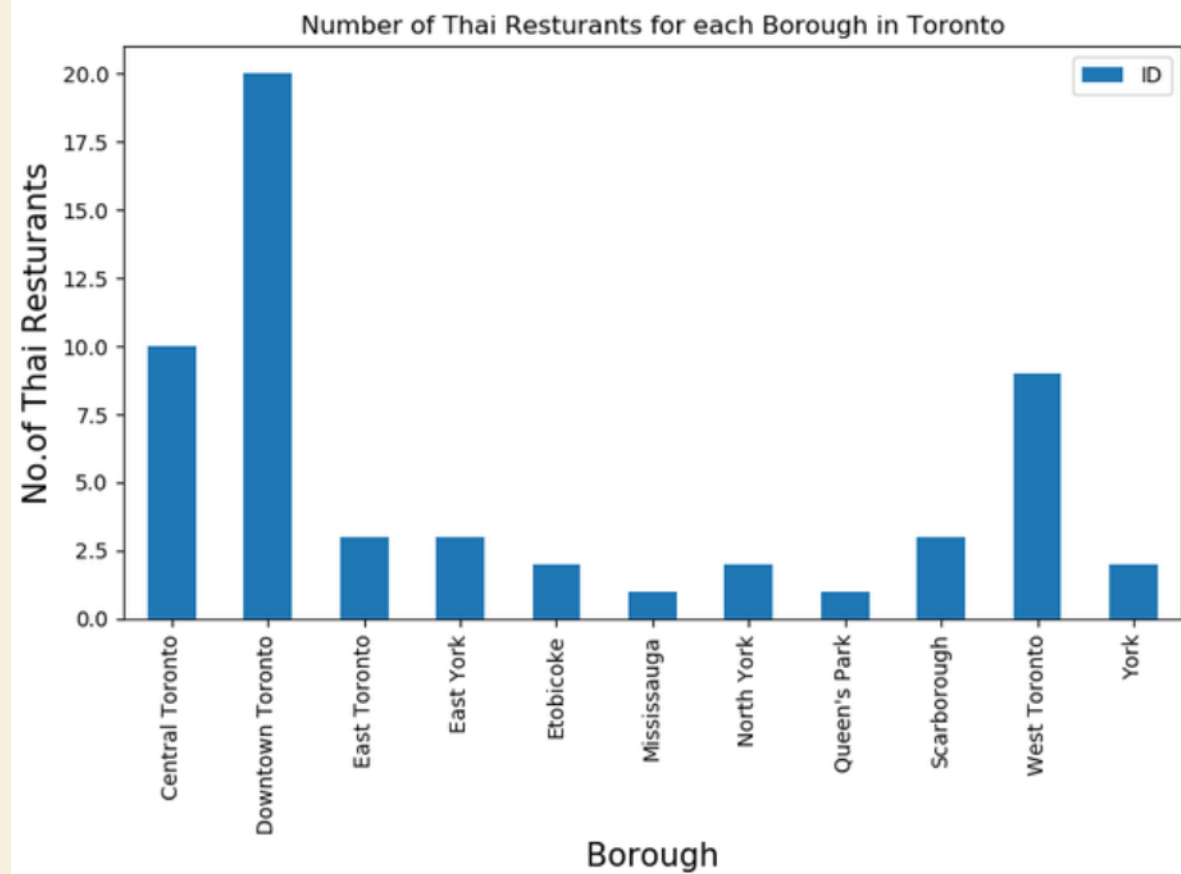
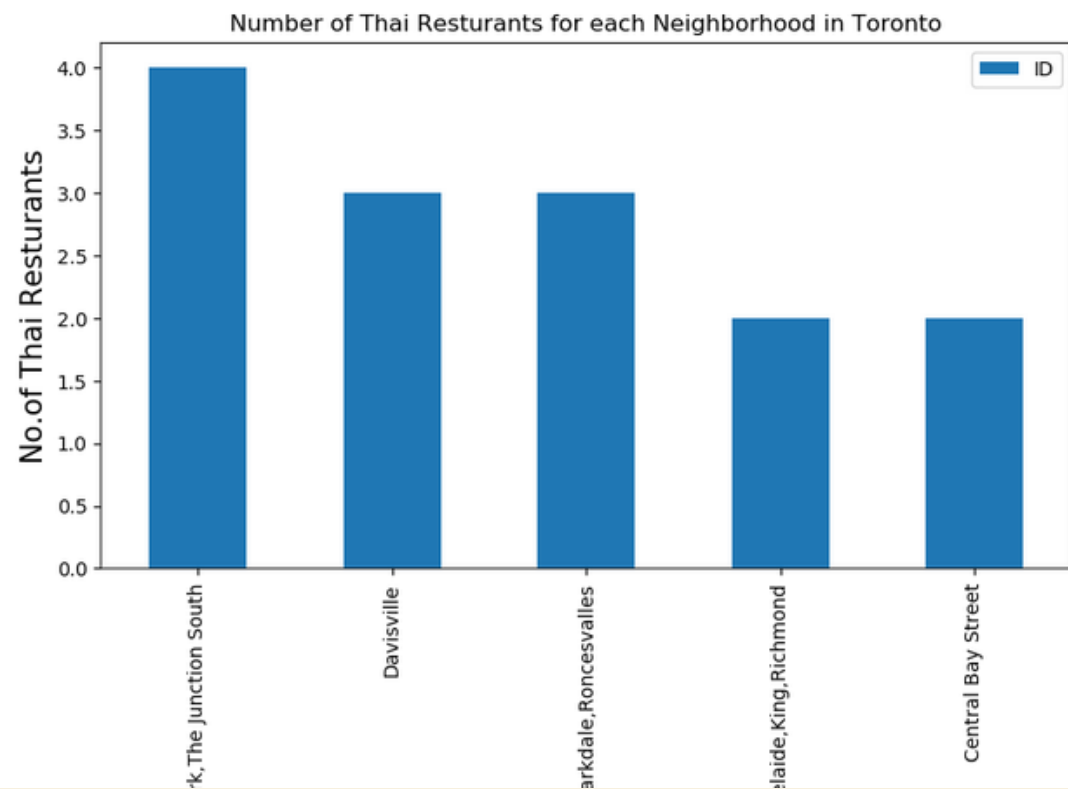
- As a Thai food business, seeing the picture in business for Thai restaurants, so we would like to find out about the business
  - Best Places in Toronto city for Thai cuisine
  - which areas have the potential to market for Thai Restaurant
  - which is the best place to stay if I like Thai food

## **Stackholde**

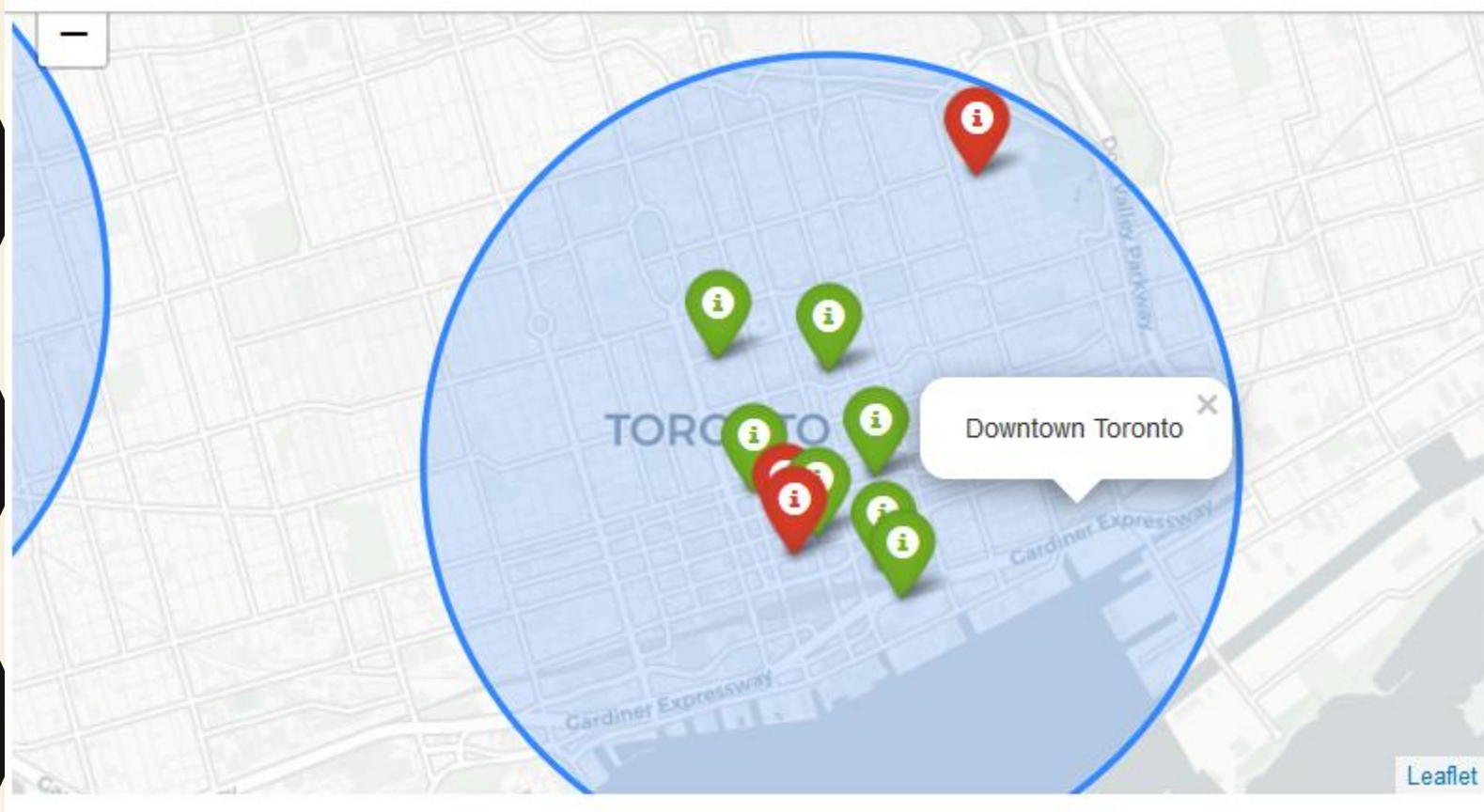
- Owner Thai Cuisine.
- Some one who want to eat Thai Food.

# ANALYSIS

- We will import the required libraries for python.
- pandas and numpy for handling data.
- request module for using FourSquare API.
- folium to visualize the results on a map



## Visualize the Data



Now that we have visualized the Neighborhoods. In green maker show the Restaurants is rating between 8-9 point in Red maker show the Restaurants is Rating Between 0-7 Point



## **Conclusion**

- The best place to run the Thai food business is located in the Down Town area in Toronto, as it is considered rating, which means a lot of people who have been eating Thai food, heading Down to Down Town, to go to those Thai cuisine.

## **Limitations**

- The ranking is purely on basis of rating of restaurants
- The accuracy of data depends purely depends on the data provided by FourSquare