



Applied Data Science Capstone

Capstone Project - The Battle of Neighborhoods (Week 2)



Introduction: Business Problem

- Clearly define a problem or an idea of your choice, where you would need to leverage the Foursquare location data to solve or execute. Remember that data science problems always target an audience and are meant to help a group of stakeholders solve a problem, so make sure that you explicitly describe your audience and why they would care about your problem.
- The purpose of this project is to help people planning to open a new restaurant in Toronto to choose the right location by providing data about the income and population of each neighborhood as well as the competitors already present on the same regions.
- Lots of people are migrating to various states of Canada and needed lots of research for good opening a Business like a restaurant. This project is for those people who are looking for better neighborhoods. For ease of accessing to a restaurant.
- This project aims to create an analysis of features for people migrating to Scarborough to search the best neighborhood as a comparative analysis between neighborhoods.
- It will help people who have businesses to get awareness of the area and neighborhood before moving to a new city, state, country, or place for their work and business.
- So the Problem Which Tried to Solve:
- The major purpose of this project is to suggest a better neighborhood in a new city for the person who is shifting there to open a new business. Sorted list of restaurants in terms of restaurant prices in an ascending or descending order.

Data

- Data Link: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M
- for population: https://en.wikipedia.org/wiki/Demographics_of_Toronto_neighbourhoods
- Will use Scarborough dataset which we scrapped from wikipedia on Week 3. Dataset consisting of latitude and longitude, zip codes.

The data retrieved from Foursquare contained information of venues within a specified distance of the longitude and latitude of the postcodes. The information obtained per venue as follows:

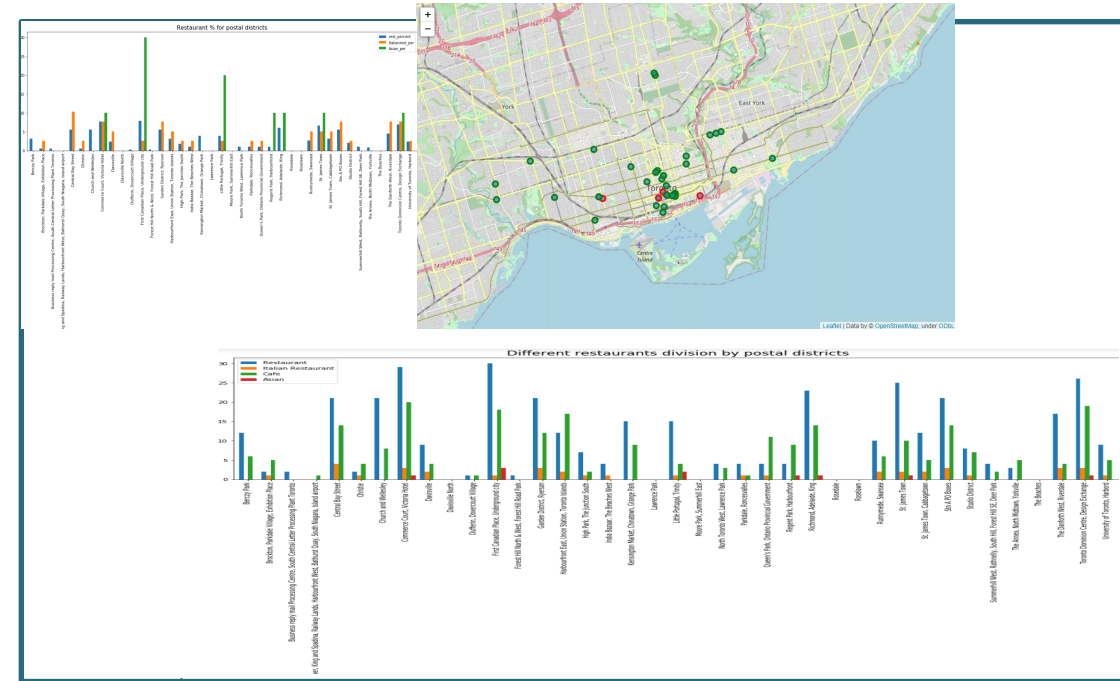
- 1. Neighborhood*
- 2. Neighborhood Latitude*
- 3. Neighborhood Longitude*
- 4. Venue*
- 5. Name of the venue e.g. the name of a restaurant*
- 6. Venue Latitude*
- 7. Venue Longitude*
- 8. Venue Category*

Results & Analysis

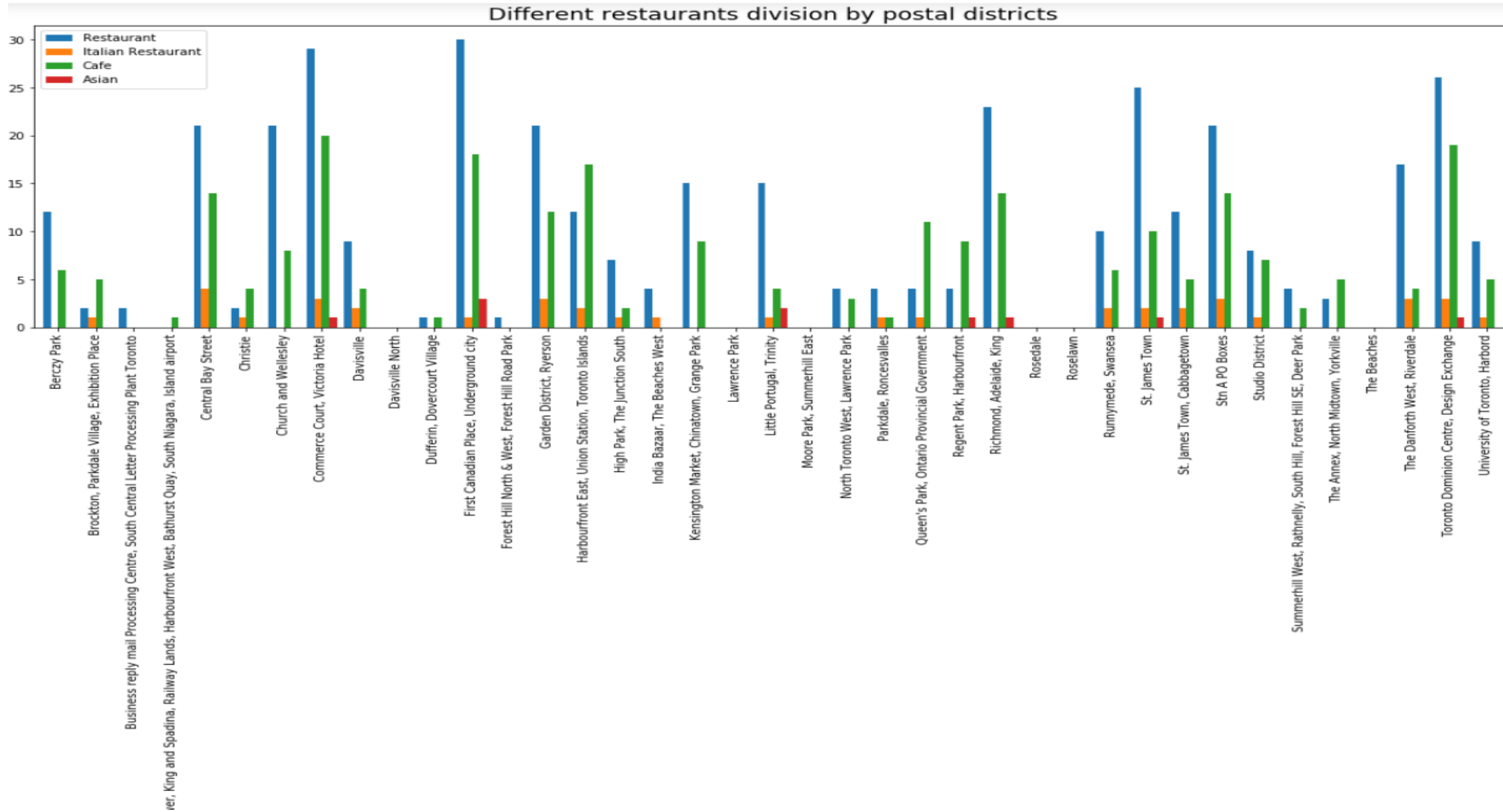
Planning a restaurants business in Toronto?



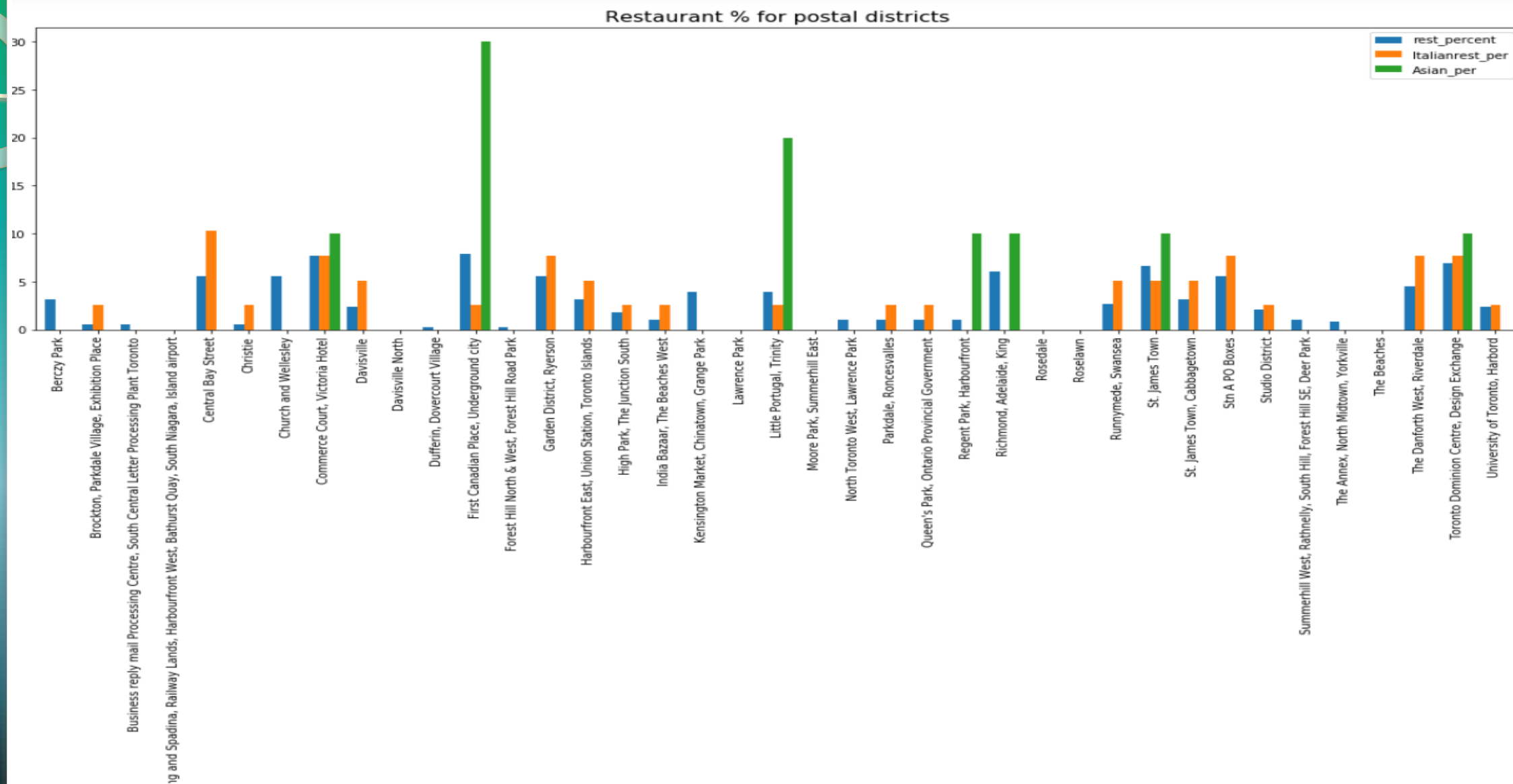
Which area will be less competitive yet have good potential?



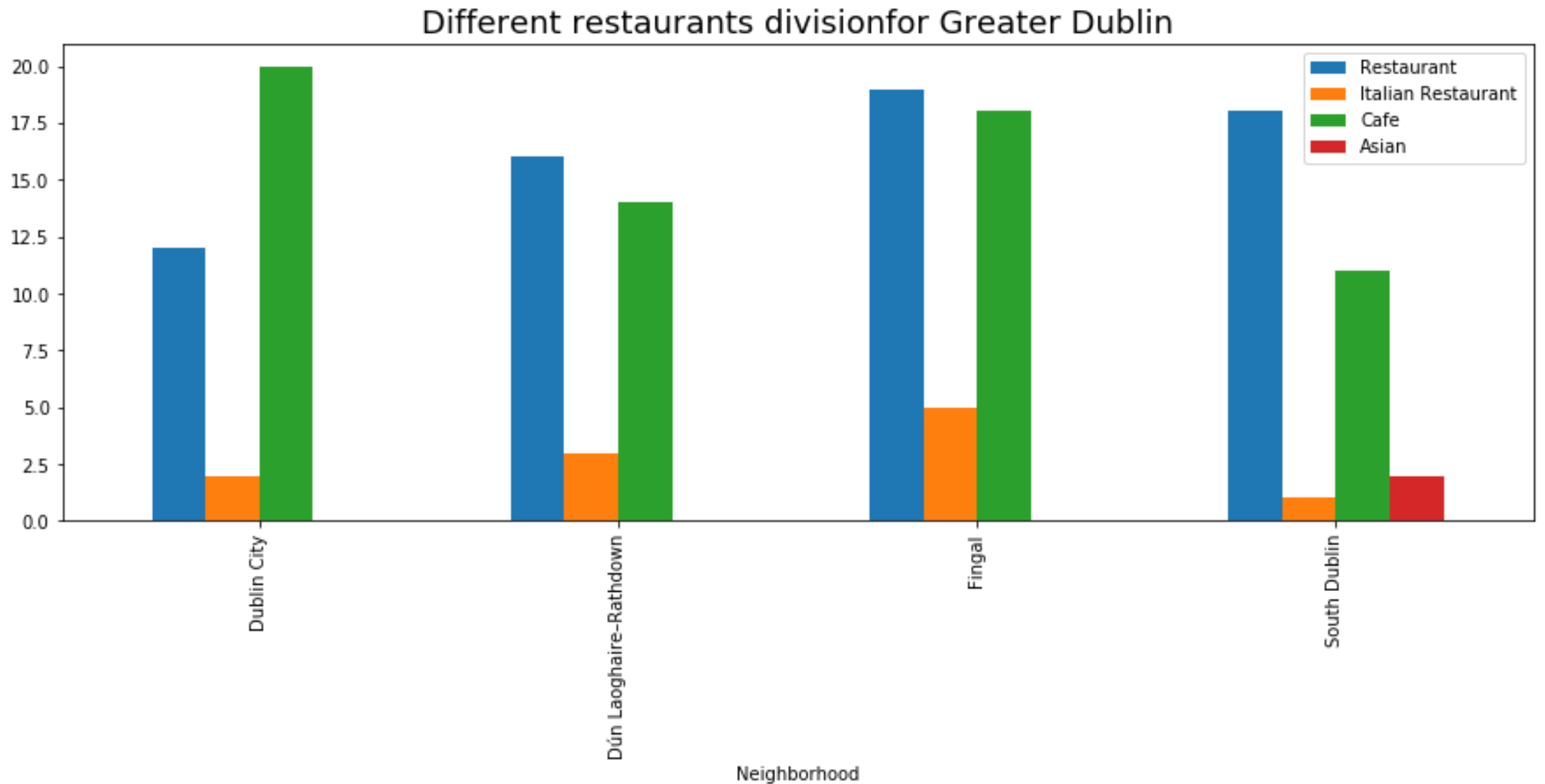
Results & Analysis



Results & Analysis



Results & Analysis



A map of Toronto, Ontario, Canada, showing the city's layout, including major roads, parks, and the waterfront. The map is overlaid with a network of bus routes, represented by red lines with numbers. Several bus stations are marked with green circular icons. The map includes labels for various areas such as York, East York, and Centre Island. A legend in the top left corner indicates that the red lines represent bus routes and the green circles represent bus stations. The map is sourced from OpenStreetMap, as indicated by the text in the bottom right corner.

Results & Analysis

	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	Berczy Park	Coffee Shop	Cocktail Bar	Farmers Market	Café	Cheese Shop	Pharmacy	Bakery	Restaurant	Beer Bar	Seafood Restaurant
1	Brockton, Parkdale Village, Exhibition Place	Café	Yoga Studio	Coffee Shop	Breakfast Spot	Bakery	Convenience Store	Performing Arts Venue	Pet Store	Climbing Gym	Restaurant
2	Business reply mail Processing Centre, South C...	Light Rail Station	Park	Pizza Place	Smoke Shop	Brewery	Spa	Burrito Place	Farmers Market	Fast Food Restaurant	Restaurant
3	CN Tower, King and Spadina, Railway Lands, Har...	Airport Service	Airport Terminal	Airport Lounge	Boat or Ferry	Coffee Shop	Harbor / Marina	Boutique	Sculpture Garden	Airport Gate	Airport Food Court
4	Central Bay Street	Coffee Shop	Sandwich Place	Italian Restaurant	Café	Japanese Restaurant	Salad Place	Bubble Tea Shop	Burger Joint	Department Store	Bar



Analysis

- ✓ Overall Asian Restaurants have less existence in Toronto City. first canadian place, Underground city and Commerce court, Victoial hotel areas, region which has plenty of restaurants and cafe otherwise.
- ✓ Assuming Asian migrated peoples are settling in first canadian place, Underground city and Little portugal, Trinity postal districts majorly, hence Little portugal, Trinity can be a good potential area for Asian restaurant.



Conclusion

- Little portugal, Trinity, Richmond, Adelaide, king and Regent park would be potential regions to open a Asian Restaurant.
- Assuming increasing population in Richmond, Adelaide, king and Regent park region, Asian restaurants would have good potential in these areas of Toronto.