The Battle of Neighborhood

Introduction

- This project is to take a glimpse at different neighborhoods of Providence, RI and Hartford, CT. Both cities are capital cities of their states and are major cities between New York City and Boston in East Coast.

- Travelers from inside and outside of New England area who want to decide where to visit and business owners may be interested in the project.

Data

- I organized two data sets of zipcode and neighborhoods with latitude and longitude for each city from multiple online sources
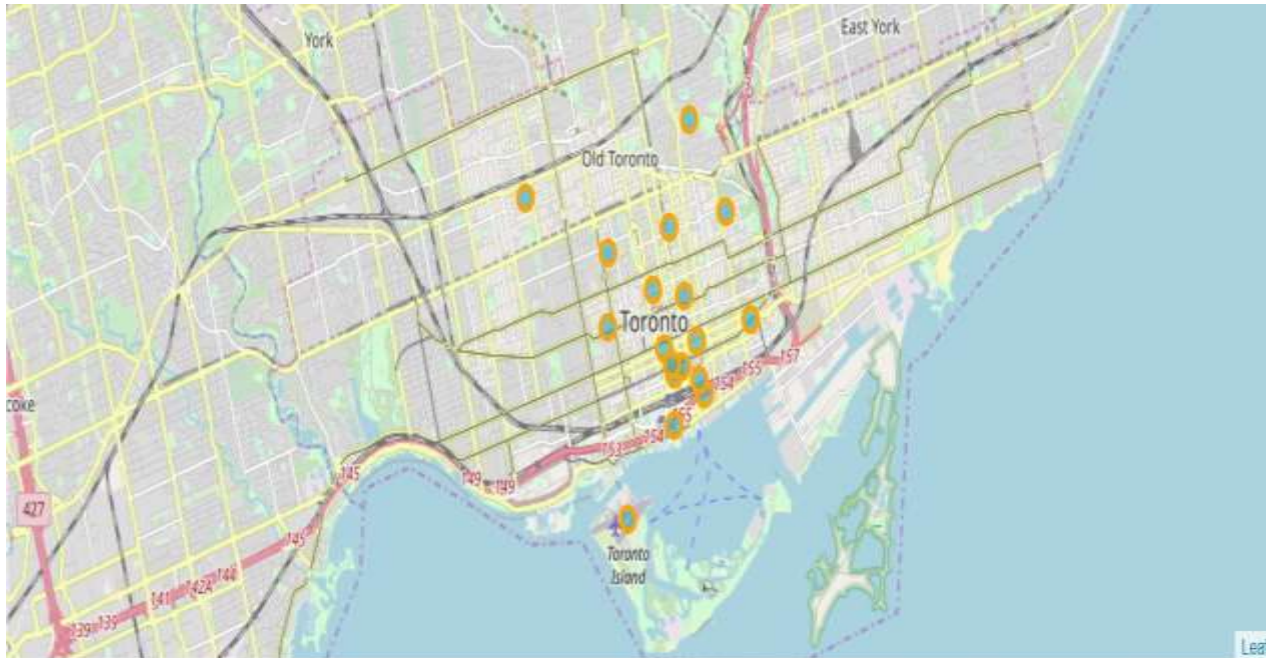
- **Data Description:**

   The information we want to focus on are restaurants, coffee shops and entertainment venues. We will choose one neighborhood from each city: Manhattan for New York and Downtown for Toronto. We need to apply Neighborhood Segmentation and Clustering to analyzing the neighborhood data and prioritize the best restaurant location in both cities based on foot traffic and type of restaurants.

Methodology

- Basic skills from week 3 lab
- Majorly relied on Foursquare API to retrieve all venues of each neighborhoods, then group by each neighborhoods and to count how many venues before filter top 10 most common venue types of each neighborhoods
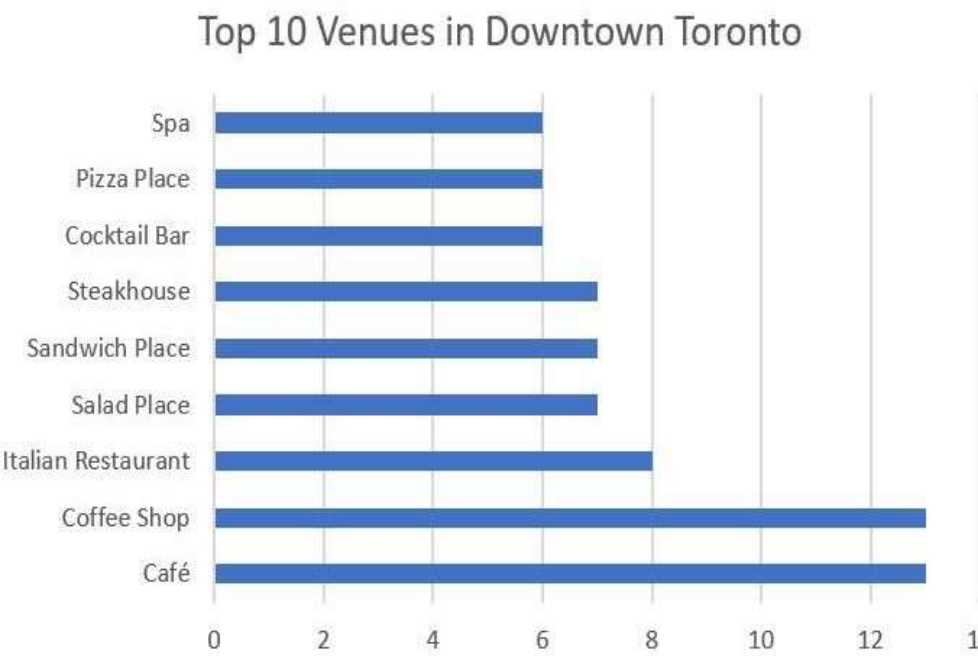
Map visualize

- I used folium library to visualize geographic overview for both of the cities. The key is using proper latitude and longitude values based on neighborhoods.

- Downtown Toronto neighborhoods overview

• These are the top 10 venues in toranto

Borough	Neighborhood	Latitude	Longitude	Cluster Labels	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 Ven
Downtown Toronto	Rosedale	43.679563	-79.377529	1	Park	Trail	Playground	Comic Shop	Candy Store	Caribbean Restaurant	Cheese Shop	Chinese Restaurant	Chocolate Shop	Chur
Downtown Toronto	Cabbagetown, St. James Town	43.667967	-79.367675	0	Café	Gift Shop	Restaurant	Diner	Gastropub	General Entertainment	Deli / Bodega	Indian Restaurant	Italian Restaurant	Japane Restaura
Downtown Toronto	Church and Wellesley	43.665860	-79.383160	4	Breakfast Spot	Salon / Barbershop	Mexican Restaurant	Burger Joint	Bubble Tea Shop	Park	Bookstore	Pizza Place	Pub	Ram Restaura
Downtown Toronto	Harbourfront, Regent Park	43.654260	-79.360636	1	Coffee Shop	Bakery	Breakfast Spot	Gym / Fitness Center	Restaurant	Spa	Pub	Mexican Restaurant	Historic Site	Performi Arts Ven
Downtown Toronto	Ryerson, Garden District	43.657162	-79.378937	3	Café	Sandwich Place	Comic Shop	Movie Theater	Burger Joint	Music Venue	Pizza Place	Clothing Store	Plaza	Ram Restaura

Top 10 Venues in Downtown Toronto

Results

- Providence has more venues than Hartford (512 vs 460)
- Federal Hill has the most venues in Providence
- Downtown has the most venues in Hartford
- Most of venues in Federal Hill are restaurants, bars
- Venues in Downtown Hartford are more diverse includes: banks, concert hall, gyms…
- Bars, Restaurants, Bakeries, and Diners are very common in Providence
- Hartford is more about commercial

Conclusion

- For travelers:
- Providence may more suitable to spend a good amount time of enjoy the local food
- Hartford has less food but more commercial

- For business owners:
- Providence is good place to open small business related to food and travel industry
- Hartford is better place to involve in insurance industry