

Caribbean Food Truck at Caribana Festive in Toronto

Lakemariam Worku

Toronto Area

- ▶ Greater Toronto Area is the largest metropolitan in Canada
- ▶ Toronto has a history of over 10,000 years starting from native people to present residents
- ▶ Toronto hosts the largest Caribbean carnival called Caribana each year and it generates an estimated half a billion dollar to the city

Business Problem

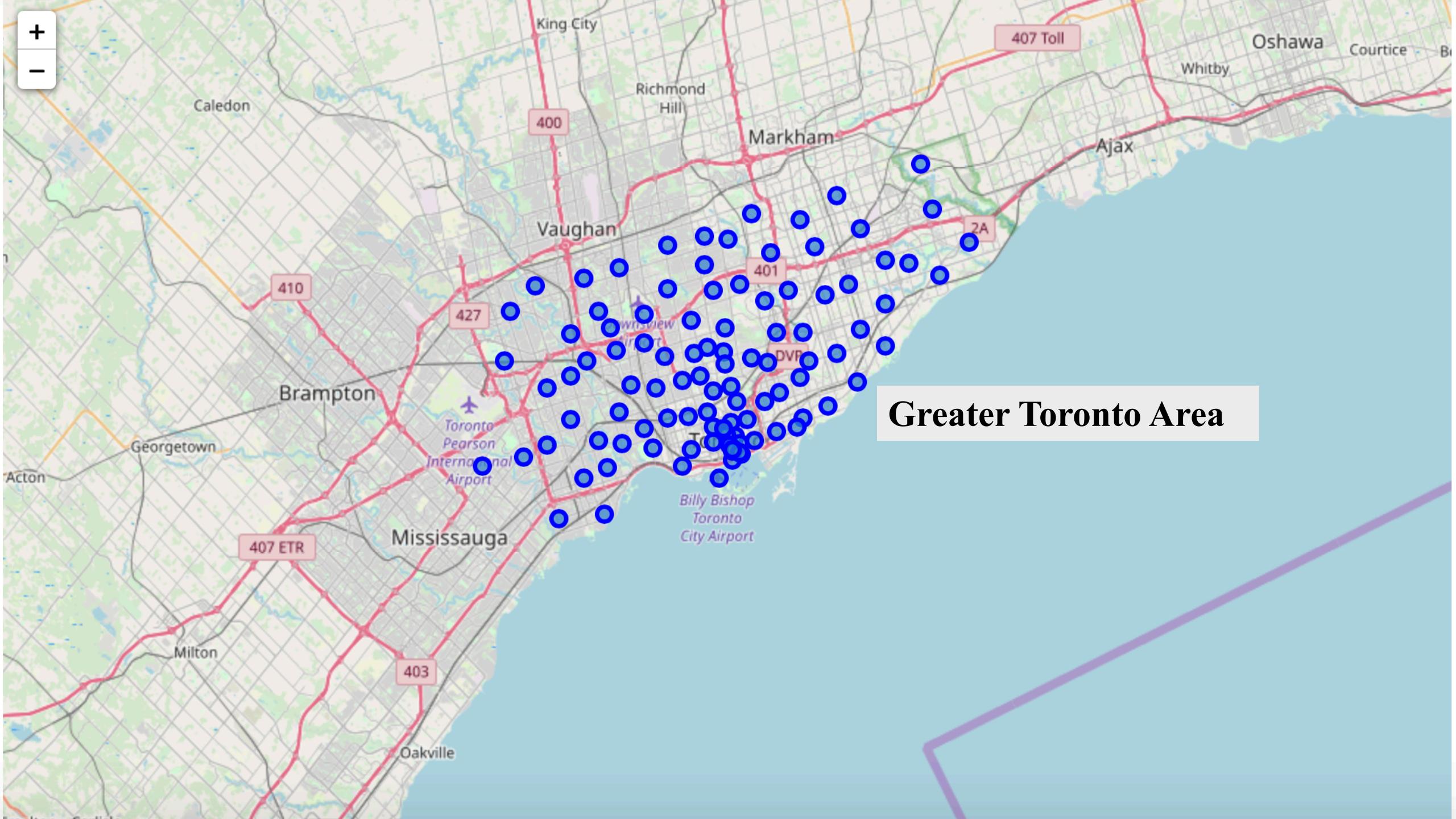
- ▶ Caribana attracts millions of attendees each year
- ▶ Food and drink themed in Caribbean culture is a good business during the festive
- ▶ There are no Caribbean cultural food stores nearby the festive venue

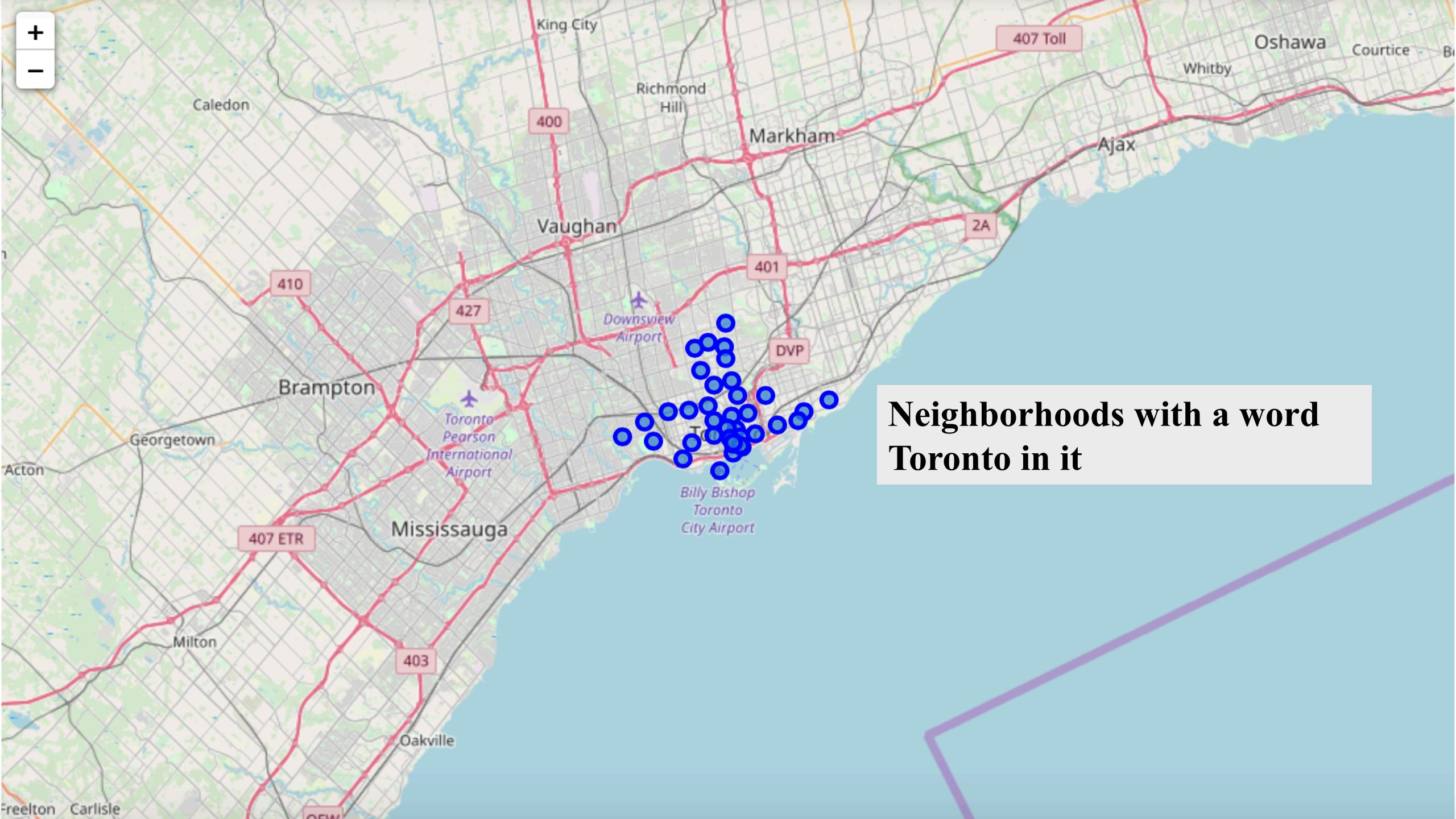
Neighborhood Data

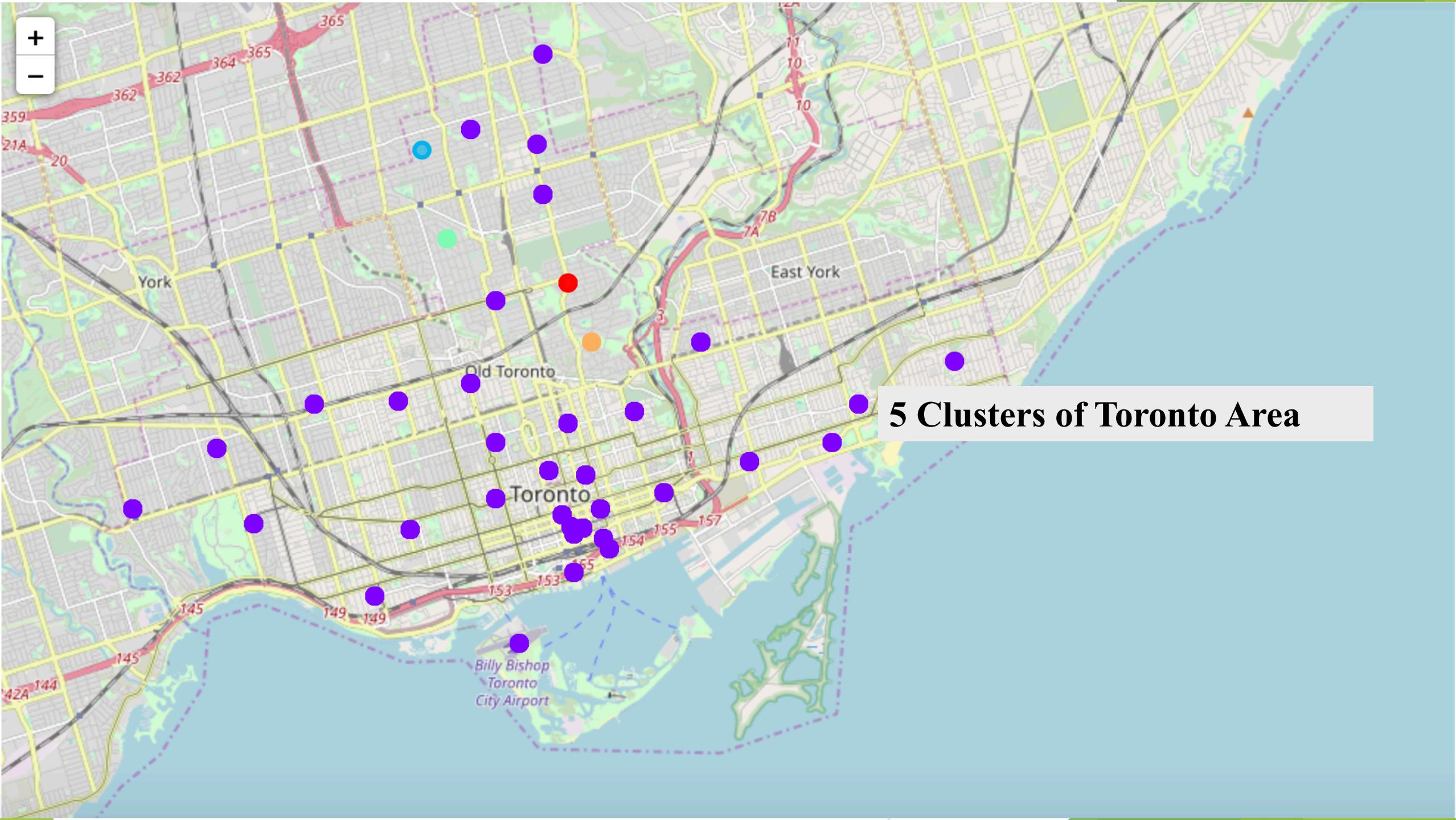
- ▶ Toronto around 33 neighborhoods
- ▶ The neighborhood data were extracted from Canada postcode dataset:
https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M
- ▶ In order to scrap Toronto's neighborhood information Python packages like Pandas, Requests, BeautifulSoup, Numpy, and Geopy were used
- ▶ Initially the data downloaded using WGET and then cleaned

- Detailed steps on scrapping the data and clustering can be found in

https://nbviewer.jupyter.org/github/Lakemariam/Coursera_Capsone/blob/master/The%20Battle%20of%20Neighbourhood%20II.ipynb







```
In [84]: toronto_merged.loc[toronto_merged['Cluster Labels'] == 0, toronto_merged.columns[[1] + list(range(5, toronto_merged.shape[1]))]]
```

Out[84]:

	Neighborhood	Venue	Venue	Cluster	1st Most	2nd	3rd Most	4th Most	5th Most	6th Most	7th Most	8th Most	9th Most	10th
	Latitude	Longitude	Category	Labels	Common Venue	Most Common	Common Venue	Common Venue	Common Venue	Common Venue	Most Common	Common Venue	Common Venue	Most Common
170	43.689574	-79.386841	Trail	0	Playground	Trail	Tennis Court	Wings Joint	Dog Run	Dessert Shop	Dim Sum Restaurant	Diner	Discount Store	Donut Shop
171	43.689574	-79.382900	Tennis Court	0	Playground	Trail	Tennis Court	Wings Joint	Dog Run	Dessert Shop	Dim Sum Restaurant	Diner	Discount Store	Donut Shop
172	43.689574	-79.383465	Playground	0	Playground	Trail	Tennis Court	Wings Joint	Dog Run	Dessert Shop	Dim Sum Restaurant	Diner	Discount Store	Donut Shop

- ▶ This cluster consists mostly sport venues like trail, playground, and tennis courts
- ▶ The cluster is far from the Caribana festive venue

```
In [85]: toronto_merged.loc[toronto_merged['Cluster Labels'] == 1, toronto_merged.columns[[1] + list(range(5, toronto_merged.shape[1]))]]
```

Neighborhood	Latitude	Venue Longitude	Venue Category	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 Venue
0	43.676357	-79.297734	Health Food Store	1	Health Food Store	Pub	Music Venue	Wings Joint	Department Store	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant	Donut Shop
1	43.676357	-79.297215	Pub	1	Health Food Store	Pub	Music Venue	Wings Joint	Department Store	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant	Donut Shop
2	43.676357	-79.288022	Music Venue	1	Health Food Store	Pub	Music Venue	Wings Joint	Department Store	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant	Donut Shop
3	43.676357	-79.292869	Neighborhood	1	Health Food Store	Pub	Music Venue	Wings Joint	Department Store	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant	Donut Shop
4	43.679557	-79.351434	Greek Restaurant	1	Greek Restaurant	Coffee Shop	Ice Cream Shop	Italian Restaurant	Bookstore	Furniture / Home Store	Bubble Tea Shop	Bakery	Sports Bar	Spa

- ▶ This cluster consists mostly food, drink, and other stores unlike the previous
- ▶ One of the cluster includes the Caribana festive venue
- ▶ This is the best cluster for this study

```
In [86]: toronto_merged.loc[toronto_merged['Cluster Labels'] == 2, toronto_merged.columns[[1] + list(range(5, toronto_merged.shape[1]))]
```

Out[86]:

Neighborhood Latitude	Venue Longitude	Venue Category	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 Venue	
114	43.711695	-79.411978	Garden	2	Garden	Wings Joint	Department Store	Event Space	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant	Donut Shop	Doner Restaurant

- ▶ The 1st common venue is garden but it has some other food and drink venues like cluster 1

```
In [87]: toronto_merged.loc[toronto_merged['Cluster Labels'] == 3, toronto_merged.columns[[1] + list(range(5, toronto_merged.shape[1]))]
```

Out[87]:

	Neighborhood Latitude	Venue Longitude	Venue Category	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 Venue
1115	43.696948	-79.410101	Trail	3	Bus Line	Trail	Jewelry Store	Sushi Restaurant	Wings Joint	Event Space	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant
1116	43.696948	-79.410274	Bus Line	3	Bus Line	Trail	Jewelry Store	Sushi Restaurant	Wings Joint	Event Space	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant
1117	43.696948	-79.407957	Sushi Restaurant	3	Bus Line	Trail	Jewelry Store	Sushi Restaurant	Wings Joint	Event Space	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant
1118	43.696948	-79.407644	Jewelry Store	3	Bus Line	Trail	Jewelry Store	Sushi Restaurant	Wings Joint	Event Space	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant

- ▶ This cluster has food and drink venues but they are not top common venues compared to cluster 1

```
In [88]: toronto_merged.loc[toronto_merged['Cluster Labels'] == 4, toronto_merged.columns[[1] + list(range(5, toronto_merged.shape[1]))]]
```

Out[88]:

	Neighborhood	Venue	Venue	Cluster	1st Most	2nd Most	3rd Most	4th Most	5th Most	6th Most	7th Most	8th Most	9th Most	10th
	Latitude	Longitude	Category	Labels	Common Venue	Common Venue	Common Venue	Common Venue	Common Venue	Most Common Venue				
37	43.679563	-79.378934	Playground	4	Park	Playground	Trail	Wings Joint	Department Store	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant	Donut Shop
38	43.679563	-79.373788	Park	4	Park	Playground	Trail	Wings Joint	Department Store	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant	Donut Shop
39	43.679563	-79.382773	Park	4	Park	Playground	Trail	Wings Joint	Department Store	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant	Donut Shop
40	43.679563	-79.373842	Trail	4	Park	Playground	Trail	Wings Joint	Department Store	Ethiopian Restaurant	Electronics Store	Eastern European Restaurant	Dumpling Restaurant	Donut Shop

Thank You!