IBM Course 9 Capstone Project:

NEW BUSINESS LOCATION RECOMMENDATION SYSTEM

THE LOCATION USED FOR THIS PROJECT IS TORONTO CITY, AND THE BUSINESS IS A FAST FOOD CHAIN

- The location used for this project is Toronto city
- The business is a fast food chain
- Find the neighbourhoods with the highest number of fast food chains



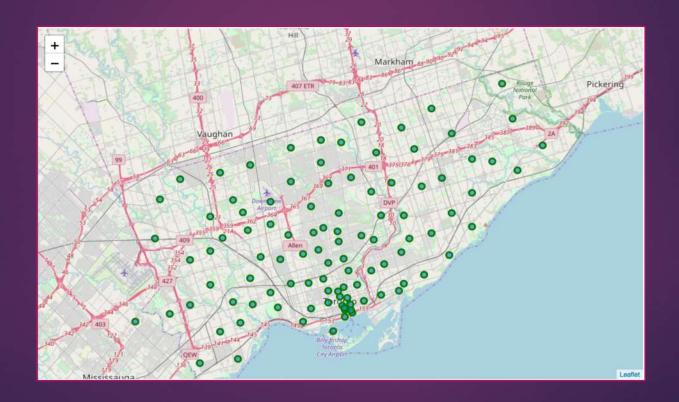
Data used

- Foursquare API: venues
- https://en.wikipedia.org/wiki/List_of_postal_cod
 - es_of_Canada:_M: Toronto's neighbourhoods

Methodology

- Extract the dataset from Wikipedia page
- Group neighbourhoods with the same postal code
- Fill empty neighbourhoods with the corresponding Borough
- Add latitude and longitude for each postal code

Methodology



Result

Extracting venues with 'Fast Food Restaurant' as category

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
1	Parkwoods	43.753259	-79.329656	KFC	43.754387	-79.333021	Fast Food Restaurant
102	Queen's Park	43.662301	-79.389494	Wendy's	43.662820	-79.383379	Fast Food Restaurant
116	Rouge, Malvern	43.806686	-79.194353	Wendy's	43.807448	-79.199056	Fast Food Restaurant
130	Woodbine Gardens, Parkview Hill	43.706397	-79.309937	Harvey's	43.710730	-79.308838	Fast Food Restaurant
133	Woodbine Gardens, Parkview Hill	43.706397	-79.309937	Harvey's	43.708136	-79.314105	Fast Food Restaurant
191	Ryerson, Garden District	43.657162	-79.378937	Bourbon St. Grill	43.655135	-79.380823	Fast Food Restaurant
258	Flemingdon Park, Don Mills South	43.725900	-79.340923	Harvey's	43.726618	-79.340997	Fast Food Restaurant
446	Caledonia-Fairbanks	43.689026	-79.453512	KFC	43.690647	-79.456326	Fast Food Restaurant
601	Bathurst Manor, Downsview North, Wilson Heights	43.754328	-79.442259	Dairy Queen	43.755680	-79.440166	Fast Food Restaurant
747	Dovercourt Village, Dufferin	43.669005	-79.442259	McDonald's	43.667942	-79.439046	Fast Food Restaurant



<u>Result</u>

Neighborhoods with highest presence of fast food chains

```
Neighborhood
Fairview, Henry Farm, Oriole
L'Amoreaux West, Steeles West
3
Woodbine Gardens, Parkview Hill
2
Bedford Park, Lawrence Manor East
2
Church and Wellesley
2
Stn A PO Boxes 25 The Esplanade
Humber Bay Shores, Mimico South, New Toronto
Willowdale South
The Beaches West, India Bazaar
Ryerson, Garden District
Name: Venue, dtype: int64
```

Result

Avoid these neighborhoods!

- Fairview
- Henry Farm
- Oriole
- L'Amoreaux West
- Steeles West