Identifying Popular Venue Types
& Underserviced Geographic Regions in Toronto
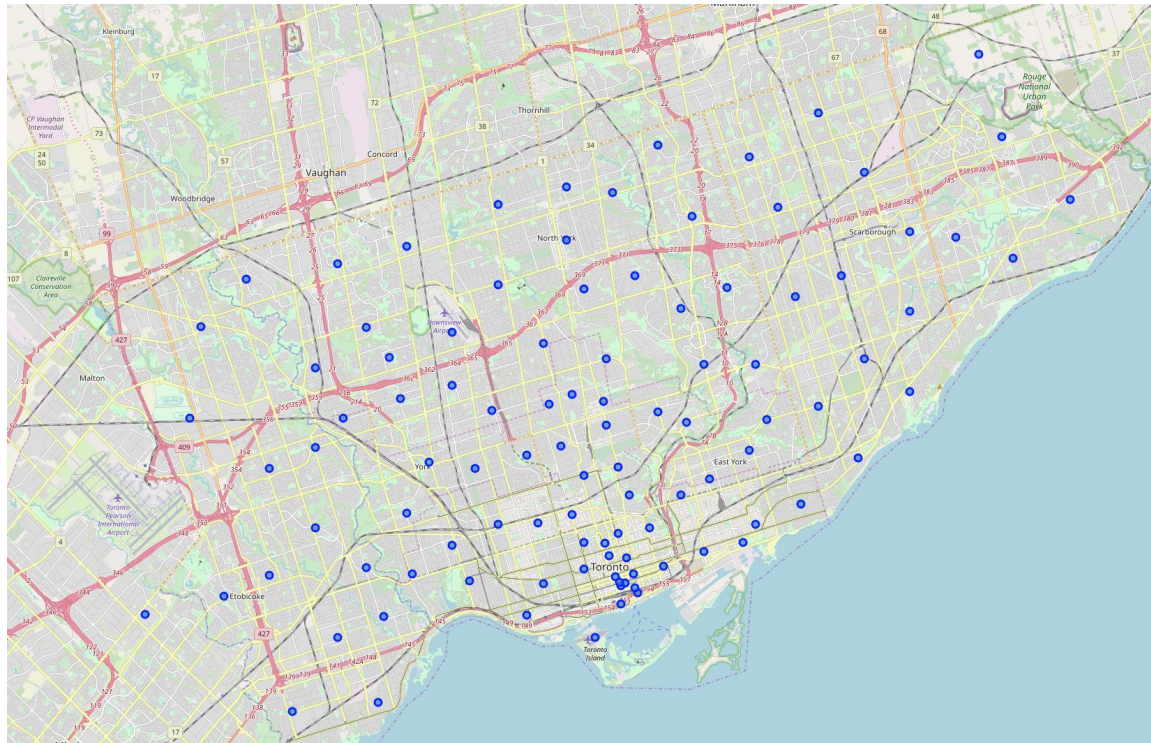
3rd of January, 2020

Introduction & Objective

1. Identify popular venue types
2. Determine if any popular venue types have a low venue count within the region
3. Identify potentially unserviced geographic regions of popular low venue count venue types

Data Source

1. Toronto List of Suburbs: Scrapped from Wikipedia
2. Geospatial Data: Sourced from Coursea
3. Foursquare Data: Attained through API

Toronto Neighbourhoods

Sample Dataframe.head() with Foursquare data

	Postcode	Postcode Latitude	Postcode Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	M1B	43.806686	-79.194353	Wendy's	43.807448	-79.199056	Fast Food Restaurant
1	M1C	43.784535	-79.160497	Royal Canadian Legion	43.782533	-79.163085	Bar
2	M1E	43.763573	-79.188711	Swiss Chalet Rotisserie & Grill	43.767697	-79.189914	Pizza Place
3	M1E	43.763573	-79.188711	G & G Electronics	43.765309	-79.191537	Electronics Store
4	M1E	43.763573	-79.188711	Big Bite Burrito	43.766299	-79.190720	Mexican Restaurant

Sample of Most Common Venue Types Per Postcode

	Postcode	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
0	M1B	Fast Food Restaurant	Yoga Studio	Eastern European Restaurant	Discount Store	Dog Run
1	M1C	Bar	Yoga Studio	Eastern European Restaurant	Dog Run	Doner Restaurant
2	M1E	Medical Center	Pizza Place	Breakfast Spot	Mexican Restaurant	Electronics Store
3	M1G	Coffee Shop	Korean Restaurant	Yoga Studio	Electronics Store	Dog Run
4	M1H	Caribbean Restaurant	Bank	Hakka Restaurant	Fried Chicken Joint	Thai Restaurant

Descriptive Statistics

	Postcode	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
count	100	100	100	100	100	100
unique	100	43	51	50	63	53
top	M9N	Coffee Shop	Coffee Shop	Coffee Shop	Yoga Studio	Dog Run
freq	1	17	8	10	10	11

Counts of Popular Venue Types

```
Coffee Shop          194
Café                  99
Restaurant            62
Park                  53
Pizza Place           50
Italian Restaurant    49
Bakery                49
Bar                   42
Sandwich Place        41
Hotel                 41
```

```
Coffee Shop               17
Café                       8
Park                       8
Fast Food Restaurant       5
Pizza Place                4
Name: 1st Most Common Venue, dtype: int64
```

```
Coffee Shop    8
Park           8
Yoga Studio    7
Café           6
Bakery         3
Name: 2nd Most Common Venue, dtype: int64
```

```
Coffee Shop                   10
Eastern European Restaurant    8
Yoga Studio                    7
Café                           5
Bakery                         4
Name: 3rd Most Common Venue, dtype: int64
```

```
Yoga Studio        10
Discount Store      6
Dog Run             5
Electronics Store   3
Bar                 3
Name: 4th Most Common Venue, dtype: int64
```

List of Yoga Studio Locations

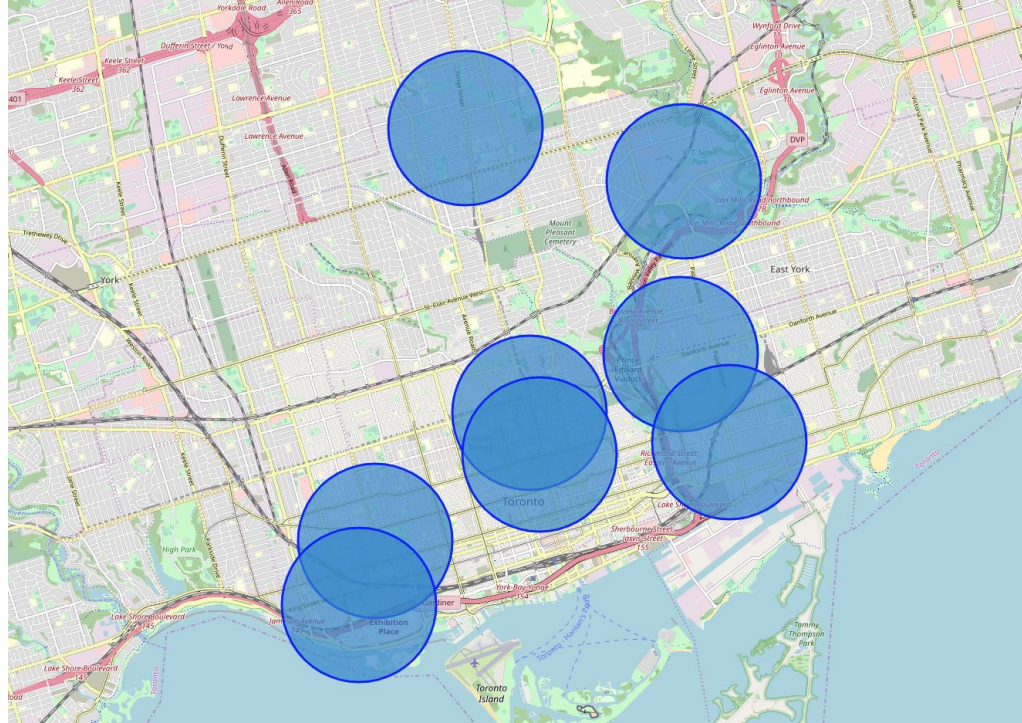|	Postcode	Postcode Latitude	Postcode Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
344	M4H	43.705369	-79.349372	Bikram Yoga East York	43.705450	-79.351448	Yoga Studio
366	M4K	43.679557	-79.352188	Moksha Yoga Danforth	43.677622	-79.352116	Yoga Studio
451	M4M	43.659526	-79.340923	Spirit Loft Yoga	43.663548	-79.341333	Yoga Studio
475	M4R	43.715383	-79.405678	Barreworks	43.714070	-79.400109	Yoga Studio
651	M4Y	43.665860	-79.383160	Bikram Yoga Yonge	43.668205	-79.385780	Yoga Studio
655	M4Y	43.665860	-79.383160	The Yoga Sanctuary	43.661499	-79.383636	Yoga Studio
1936	M6J	43.647927	-79.419750	YogaSpace	43.647607	-79.420133	Yoga Studio
1996	M6K	43.636847	-79.428191	Pure Yoga Toronto	43.637330	-79.423800	Yoga Studio

Toronto Yoga Industry

- Toronto population: 2.93 million
- 9% of population engages in Yoga
- Est. 263,700 people in Toronto interested in Yoga
- 8 Studios servicing 263,700 averages at 32,962 people per studio

Yoga Studio Locations

Service Region of each Yoga Studio

Discussion

- Conduct additional analysis and develop greater insight on the Yoga market
- Determine key demographics, segmenting the market based on these demographics into regions
- Overlay demographics over yoga serviced regions and identify geographic gaps in the market
- Research in the geographic gaps to determine if there is a feasible location