Toronto Neighborhood

Suggestion for Sports Lovers and Potential Investors

Part I: Purposes

- For sports-lovers in Toronto finding sports places

- For sports-lovers (will be) in Toronto finding sports places

- For potential investors who want to start a new gym or other sports places in Toronto

Part II: Data Collecting and Cleaning

- List of Neighborhoods: data from Wikipedia

- Sports places data from FourSquare

- Cleaning and reforming the data

1. Data Collecting
Map of Toronto with all Neighborhoods
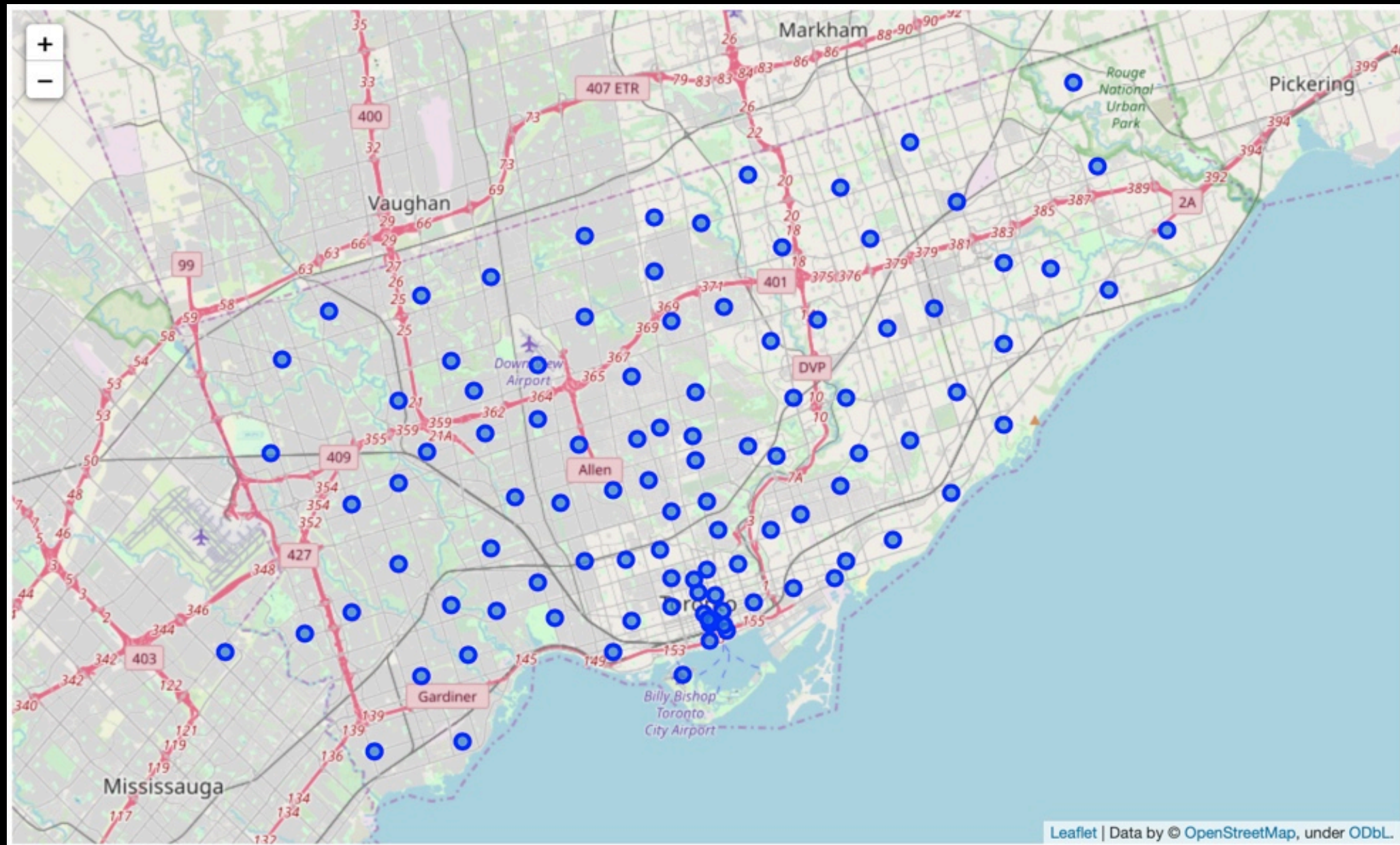
2. Data Cleaning

- After reformed, the dataset includes postal codes, coordinates, venues, venue category and distance from the city center of each neighborhood.

- The chart below shows the first five rows of the cleaned dataset.

	Postal Code	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Summary	Venue Category	Distance
0	M1B	Rouge, Malvern	43.806686	-79.194353	Images Salon & Spa	This spot is popular	Spa	595
1	M1B	Rouge, Malvern	43.806686	-79.194353	Caribbean Wave	This spot is popular	Caribbean Restaurant	912
2	M1B	Rouge, Malvern	43.806686	-79.194353	Staples Morningside	This spot is popular	Paper / Office Supplies Store	735
3	M1B	Rouge, Malvern	43.806686	-79.194353	Wendy's	This spot is popular	Fast Food Restaurant	600
4	M1B	Rouge, Malvern	43.806686	-79.194353	Wendy's	This spot is popular	Fast Food Restaurant	387

2. Data Cleaning

- The final data frame is shown below

Neighborhood	Gym	Yoga Studio	Athletics & Sports	Gym Pool	Gym / Fitness Center	Pool	Tennis Court	Badminton Court	Trail	Soccer Field	Hockey Arena	Playground	Total Restaurants	Total Joints
Agincourt	0	0	0	0	0	1	0	1	0	0	0	0	0.0	0.0
Agincourt North, L'Amoreaux East, Milliken, Steeles East	1	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Birch Cliff, Cliffside West	1	0	0	1	0	0	0	0	0	0	0	0	0.0	0.0
Cedarbrae	0	1	1	0	0	0	0	0	0	0	0	0	0.0	0.0
Clairlea, Golden Mile, Oakridge	1	0	0	0	0	0	0	0	1	1	0	0	0.0	0.0
Clarks Corners, Sullivan, Tam O'Shanter	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Cliffcrest, Cliffside, Scarborough Village West	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Dorset Park, Scarborough Town Centre, Wexford Heights	0	0	0	0	1	0	0	0	0	0	0	0	0.0	0.0
East Birchmount Park, Ionview, Kennedy Park	0	0	0	0	0	0	0	0	0	0	1	0	0.0	0.0
Guildwood, Morningside, West Hill	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Highland Creek, Rouge Hill, Port Union	0	0	0	0	0	0	0	0	0	0	0	1	0.0	0.0
L'Amoreaux West	0	0	0	1	0	0	1	0	0	0	0	0	0.0	0.0
Maryvale, Wexford	0	0	0	0	0	0	0	1	0	1	0	0	0.0	0.0
Rouge, Malvern	1	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Scarborough Village	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Woburn	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0

Result

	Gym	Yoga Studio	Athletics & Sports	Gym Pool	Gym / Fitness Center	Pool	Tennis Court	Badminton Court	Trail	Soccer Field	Hockey Arena	Playground	Total Restaurants	Total Joints	Total Sum
G3	0.0	0.0	0.0	1.00	0.000	0.0	1.0	0.0	0.00	0.00	0.000	0.000	0.0	0.0	2.000
G4	0.0	1.0	1.0	0.00	0.000	0.0	0.0	0.0	0.00	0.00	0.000	0.000	0.0	0.0	2.000
G5	0.0	0.0	0.0	0.00	0.000	0.5	0.0	1.0	0.00	0.50	0.000	0.000	0.5	0.0	2.000
G2	1.0	0.0	0.0	0.25	0.000	0.0	0.0	0.0	0.25	0.25	0.000	0.000	0.2	0.0	1.750
G1	0.0	0.0	0.0	0.00	0.125	0.0	0.0	0.0	0.00	0.00	0.125	0.125	0.0	0.0	0.375

- As shown above, Toronto has been divided into 5 clusters, namely G1-G5. And according to the final dataset, G3, G4 and G5 all have the highest total sum of 2.0, while G2 1.75 and G1 0.375. This indicates that G3, G4 and G5 are good places for sports lovers to do some sports, while G2 and G1 are good places for potential investors to do some sports business.