

CAPSTONE PROJECT

Where Do You Want to Open Your
Coffee Shop in Toronto ?

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BUSINESS PROBLEM

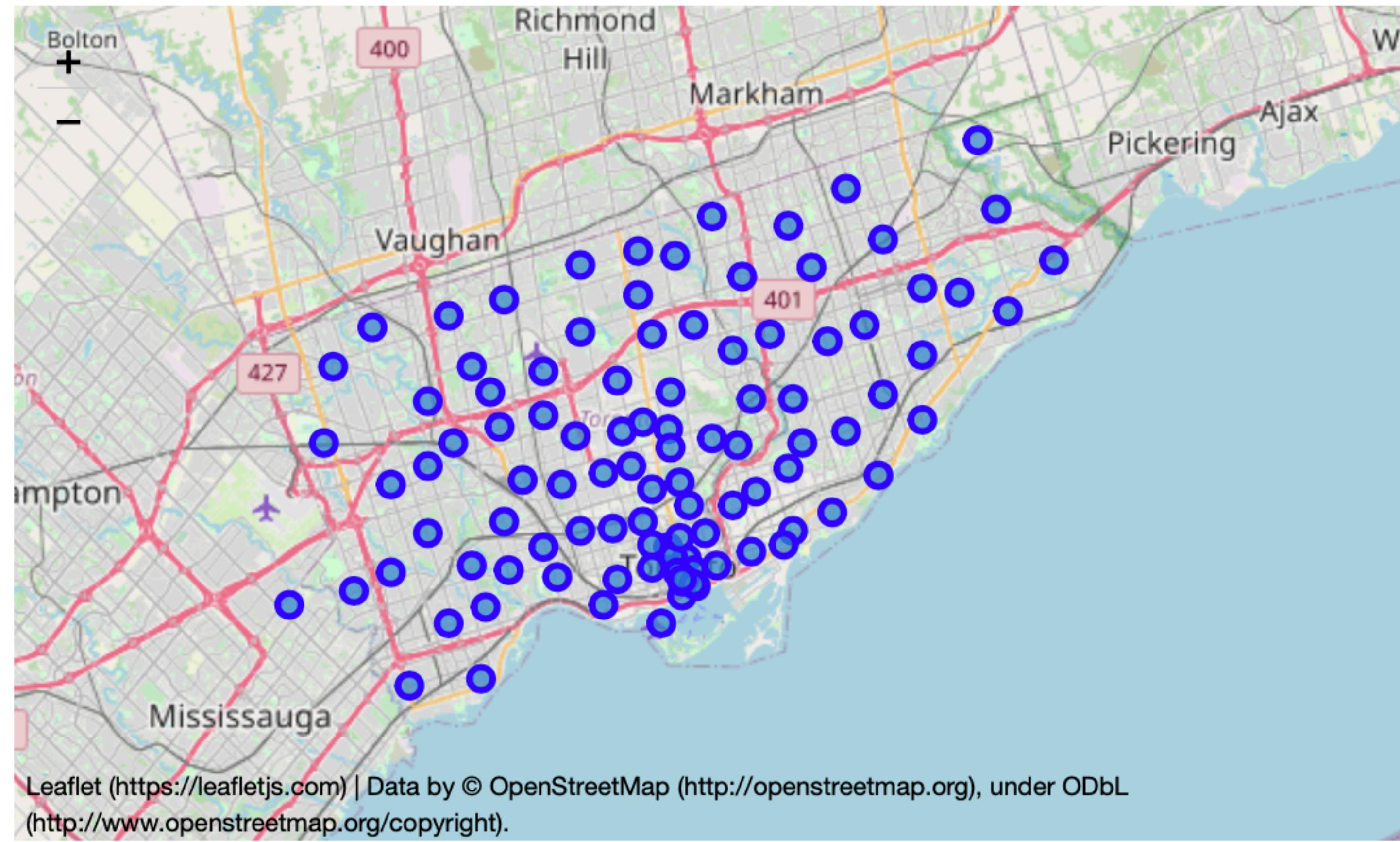
- **Toronto is one of the major cities in Canada. Being one of the country's populous metropolitan areas, Toronto is an international centre for business and finance, and home to numerous tourists from all over the world.**
- **Opening a coffee shop in this city represents business opportunity but also strong competition at the same time. This project will explore clusters of neighborhoods in Toronto to recommend locations for a good coffee shop business.**



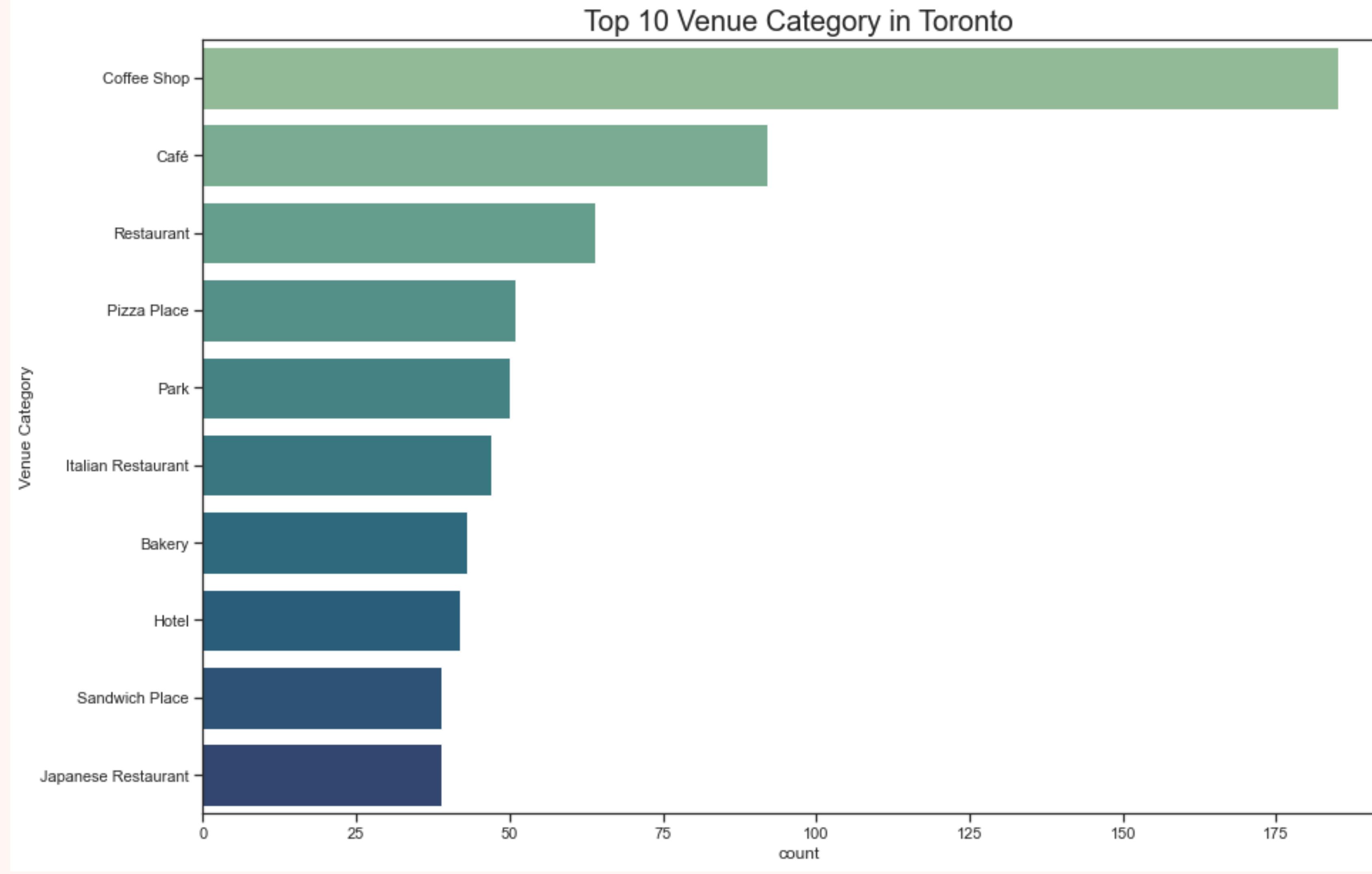
DATA SOURCE

- **Toronto Postall Codes Wikipedia Page**
 - **Foursquare location API data**
 - **Geolocation csv file**
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DATA ANALYSIS

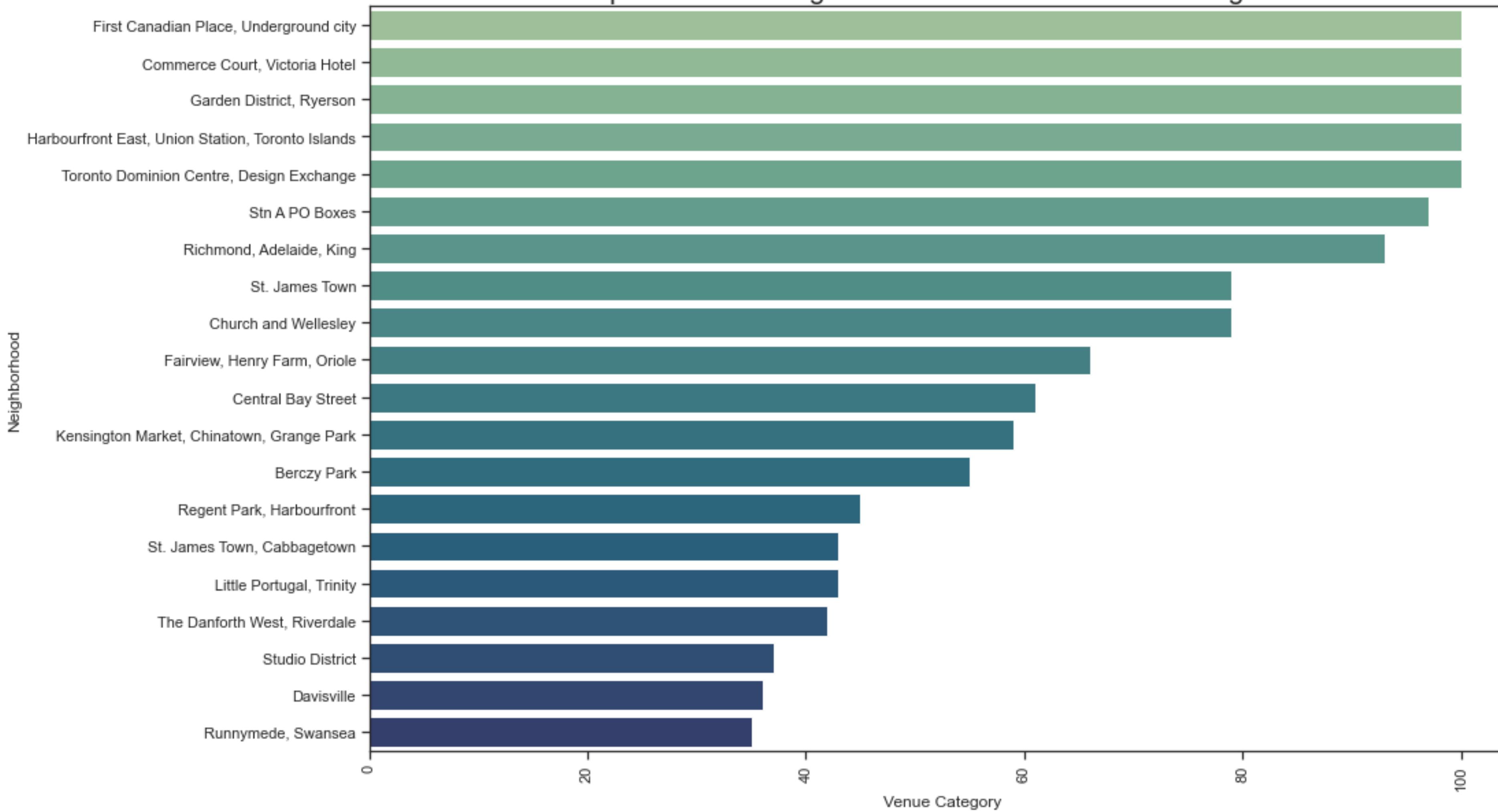


- The geographical coordinate of Toronto are **43.6534817, -79.3839347**.
- Displaying boroughs in Toronto



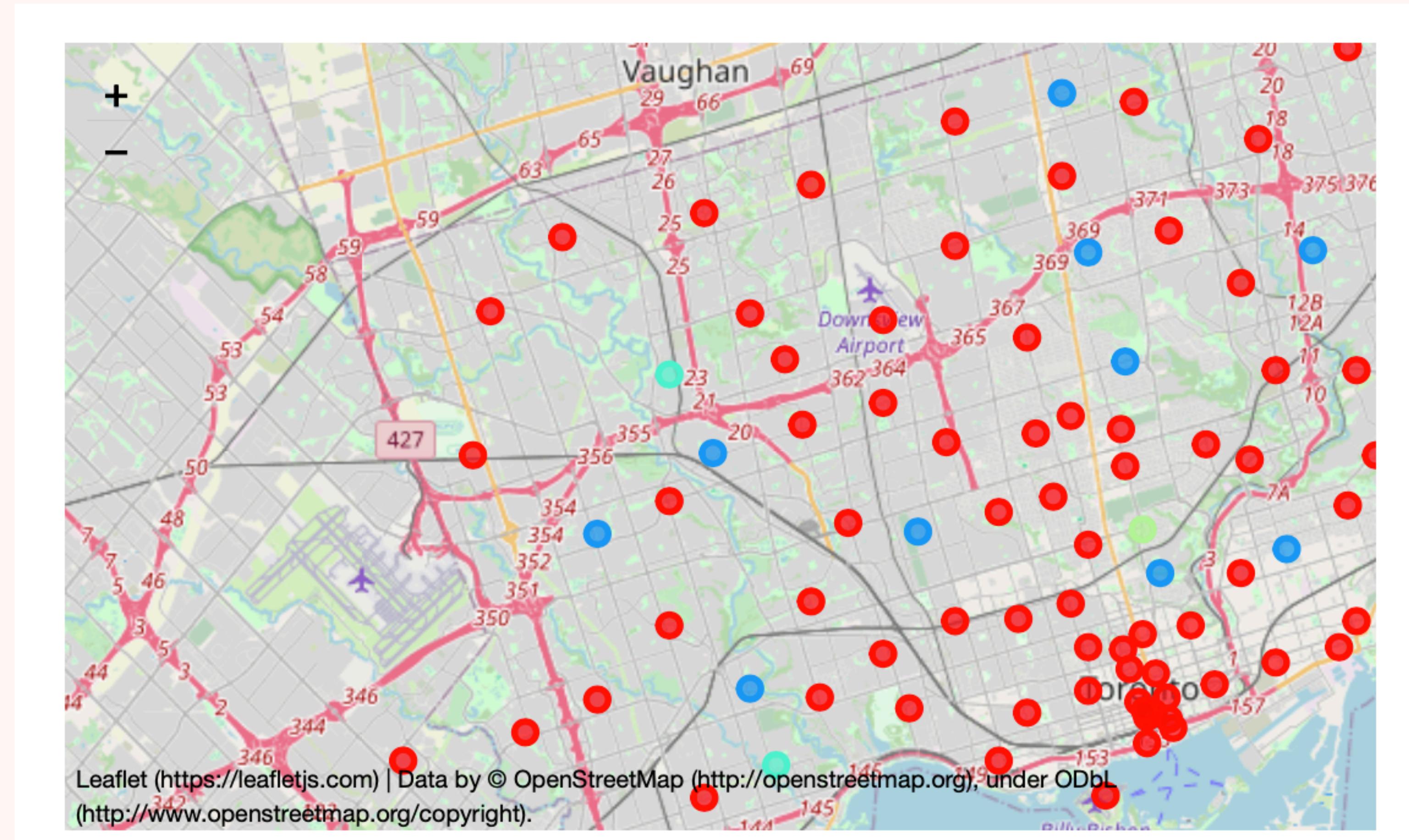
➤ **Coffee shop or cafe is the most popular business category in Toronto!**

Top 20 Toronto Neighborhoods with Most Venue Categories

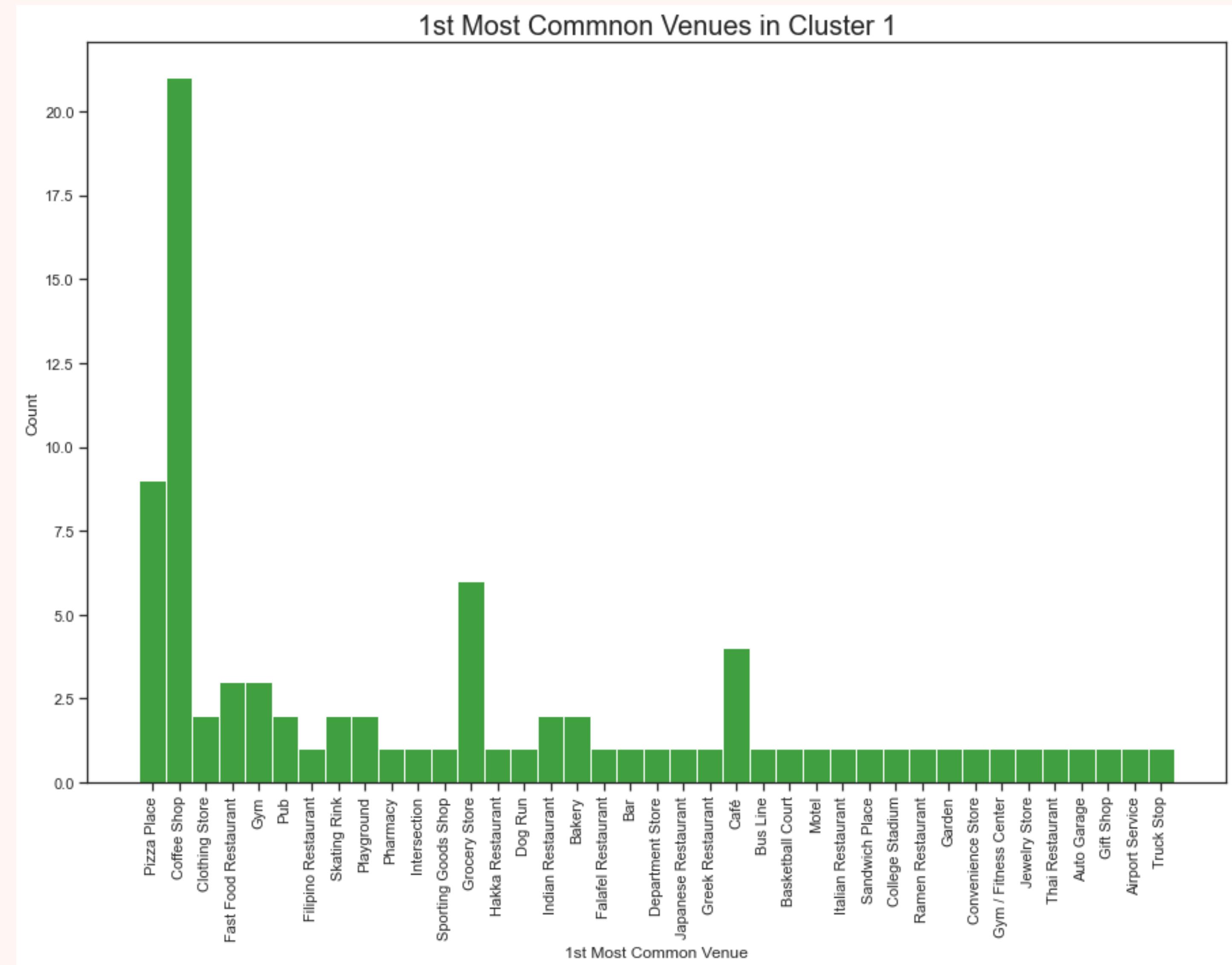


Neighborhoods with the most diverse venue categories

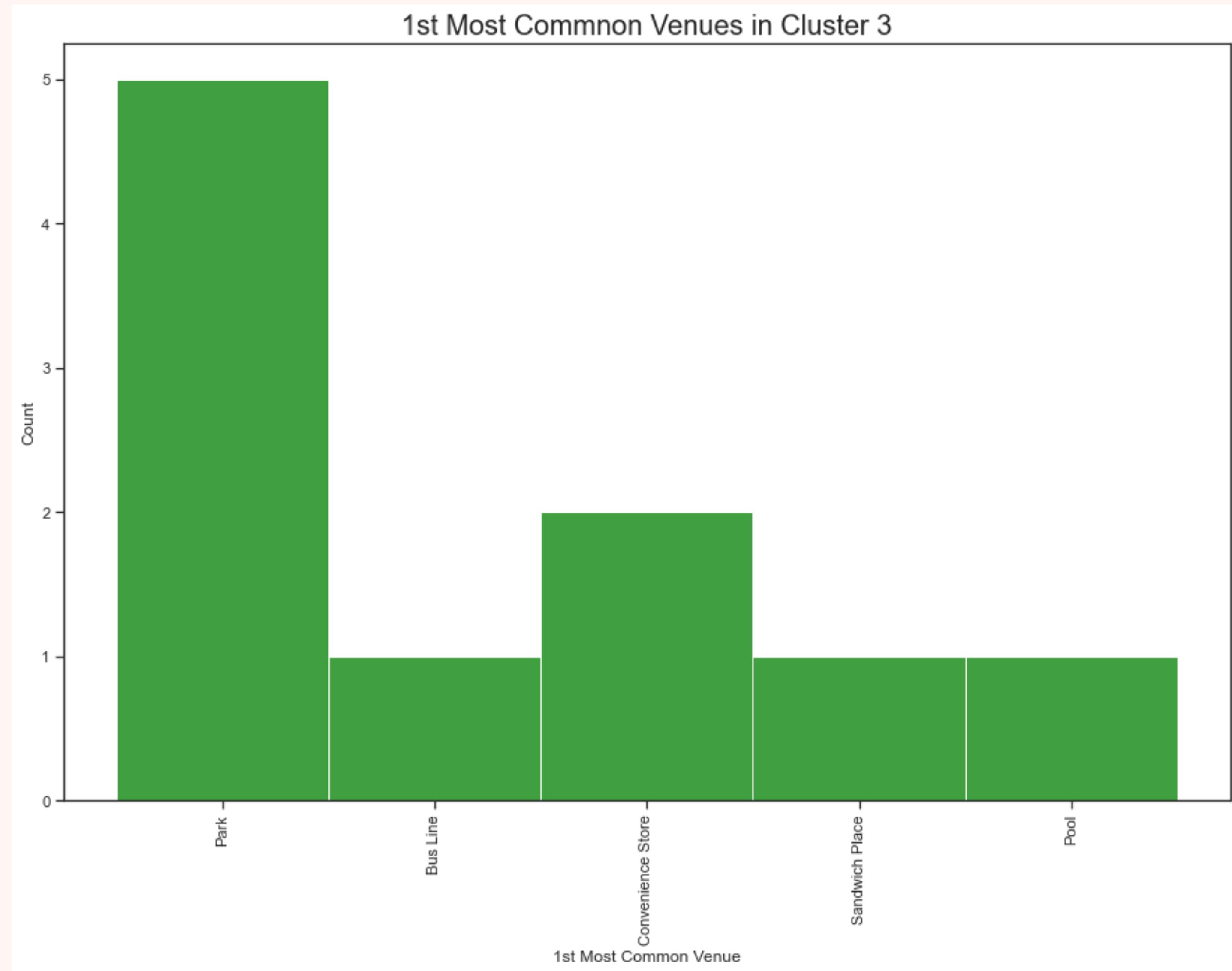
- Clustering the neighborhoods by venue category
- Turns out that most of the neighborhoods fall into Cluster 1 (red dots)



➤ **Indeed, the most common venue in Cluster 1 is coffee shop and cafe.**



➤ Cluster 3 is also an optimal alternative, with less competition for the business but diverse enough to attract customer traffic.



RESULTS & DISCUSSION

- Cluster 1 contains areas that are most likely the financial/shopping districts in Toronto with many shops and event spaces.
 - Cluster 3 also has a diverse profile of business types, but the most common venue category is park. Cluster 3 is mostly located in the remote areas of Toronto.
 - The other clusters only have 1 member.
 - Other factors should also be accounted for when making business decisions. For example, the type of neighborhood will create different customer traffic in different times of the day. A commercial neighborhood will have more traffic during the weekdays while a residential neighborhood will likely to have more traffic on the weekends.
 - The demographics are also important, given people from one culture might prefer drinking coffee than people from other cultures.
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CONCLUSION

- **Based on the cluster analysis, we can conclude that neighborhoods in cluster 1 will have most customer traffic but also strong business competition.**
 - **Cluster 3 is represents a good opportunity with less competition, but might also have slow business growth for a coffee shop business.**
 - **Other factors such as demographic components and neighborhood type should also be taken into consideration.**
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THANK YOU!
