

Calgary's passion for Coffee

Introduction

- The main topic of this assignment is related to the passion of Calgarians for coffee. During the period I have lived in this city (2 years) I have witnessed the love that Calgarians have for coffee and their extreme interest in discovering new places to drink coffee and chat. Almost all meetings in Calgary are held in a café or coffee shop. Calgarians often have a café to chat with friends, one for business, one for meeting new people and one for networking.

Objective

- The main objective of this study is to define which are the most important coffee shops in Calgary depending on the neighbourhood and brand.

Methodology



Data Origin

- The origin of the data came from the webpage
[https://en.wikipedia.org/wiki/
List_of_neighbourhoods_in_Calgary](https://en.wikipedia.org/wiki/List_of_neighbourhoods_in_Calgary) in Wikipedia

Name ^[9]	Quadrant	Sector ^[10]	Ward ^[11]	Type ^[10]	2012 Population Rank	Population (2012) ^[9]	Population (2011) ^[9]	% change	Dwellings (2012) ^[9]	Area (km ²) ^[10]	Population density
Abbeydale	NE/SE	Northeast	10	Residential	82	5,917	5,700	3.8	2,023	1.7	3,480.6
Acadia	SE	South	9	Residential	27	10,705	10,615	0.8	5,053	3.9	2,744.9
Albert Park/Radisson Heights	SE	East	10	Residential	75	6,234	6,217	0.3	2,709	2.5	2,493.6
Altadore	SW	Centre	11	Residential	39	9,116	8,907	2.3	4,486	2.9	3,143.4
Alyth/Bonnybrook	SE	Centre	9	Industrial	208	16	17	-5.9	14	3.8	4.2
Applewood Park	SE/NE	East	10	Residential	69	6,498	6,404	1.5	2,215	1.6	4,061.3
Arbour Lake	NW	Northwest	2	Residential	26	10,836	10,762	0.7	3,918	4.4	2,462.7
Aspen Woods	SW	West	6	Residential	92	5,271	4,469	17.9	2,281	3.8	1,387.1
Auburn Bay	SE	Southeast	12	Residential	60	7,193	5,769	24.7	2,808	4.5	1,598.4
Aurora Business Park	NE	North	3	Industrial	237	0	0	—	0	2.4	0

Data Wrangling

- In order to take the information from this table, the module *BeautifulSoup* was used

```
#Import Data from Wikipedia
website_text = requests.get('https://en.wikipedia.org/wiki/List_of_neighbourhoods_in_Calgary').text
soup = BeautifulSoup(website_text,'xml')

table = soup.find('table',{'class':'wikitable sortable'})
table_rows = table.find_all('tr')

data = []
for row in table_rows:
    data.append([t.text.strip() for t in row.find_all('td')])
```

Data preparation

- After adding the headings to each column, the table look like this. However, there are some rows and columns that are not important for this study

	Name	Quadrant	Sector	Ward	Type	Population 2012 (Rank)	Population 2012	Population 2011	%Change	Dwellings	Area (km2)	Density
0	None	None	None	None	None	None	None	None	None	None	None	None
1	Abbeydale	NE/SE	Northeast	10	Residential	82	5,917	5,700	3.8	2,023	1.7	3,480.6
2	Acadia	SE	South	9	Residential	27	10,705	10,615	0.8	5,053	3.9	2,744.9
3	Albert Park/Radisson Heights	SE	East	10	Residential	75	6,234	6,217	0.3	2,709	2.5	2,493.6
4	Altadore	SW	Centre	11	Residential	39	9,116	8,907	2.3	4,486	2.9	3,143.4

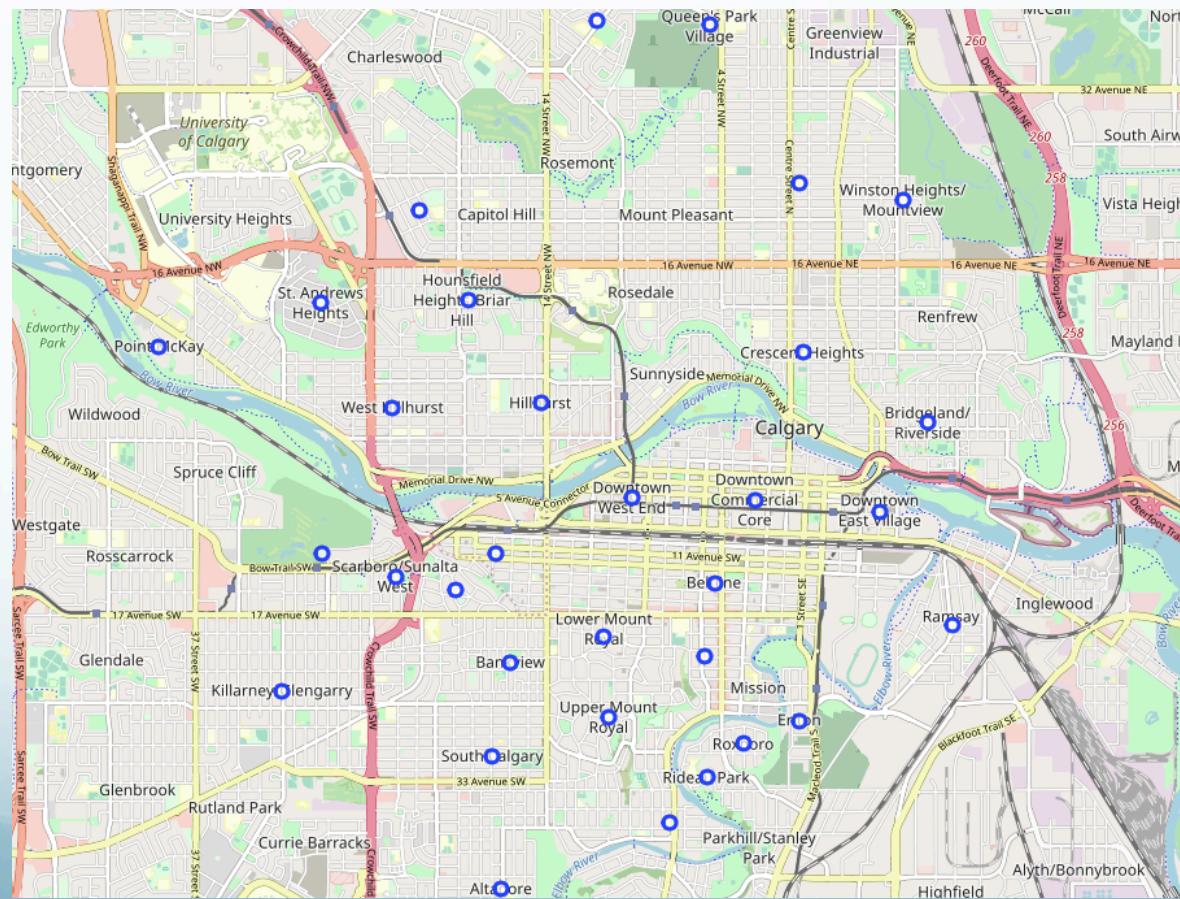
Data cleansing and coordinates

- After removing some rows and columns and using geopy to calculate the coordinates for each neighbourhood a final table that showed the neighbourhoods in Calgary centre was obtained

	Name	Quadrant	Population 2012	Area (km2)	Latitude	Longitude
1	Altadore	SW	9,116	2.9	51.0151	-114.1007
2	Banff Trail	NW	3,837	1.5	51.0714	-114.1116
3	Bankview	SW	5,221	0.7	51.0338	-114.0995
4	Bel-Aire	SW	424	0.3	37.7625	-97.2660
5	Beltline	SW/SE	19,681	2.9	51.0404	-114.0725
6	Bridgeland/Riverside	NE/SE	5,594	3.1	51.0538	-114.0443
7	Britannia	SW	803	0.5	51.0125	-114.0834
8	Cambrian Heights	NW	2,059	0.9	51.0871	-114.0880
9	Capitol Hill	NW	4,015	1.4	38.8895	-77.0094
10	Chinatown	SW/SE	1,577	0.2	40.7164	-73.9962

Map of neighbourhoods

- The neighbourhoods were mapped using folium



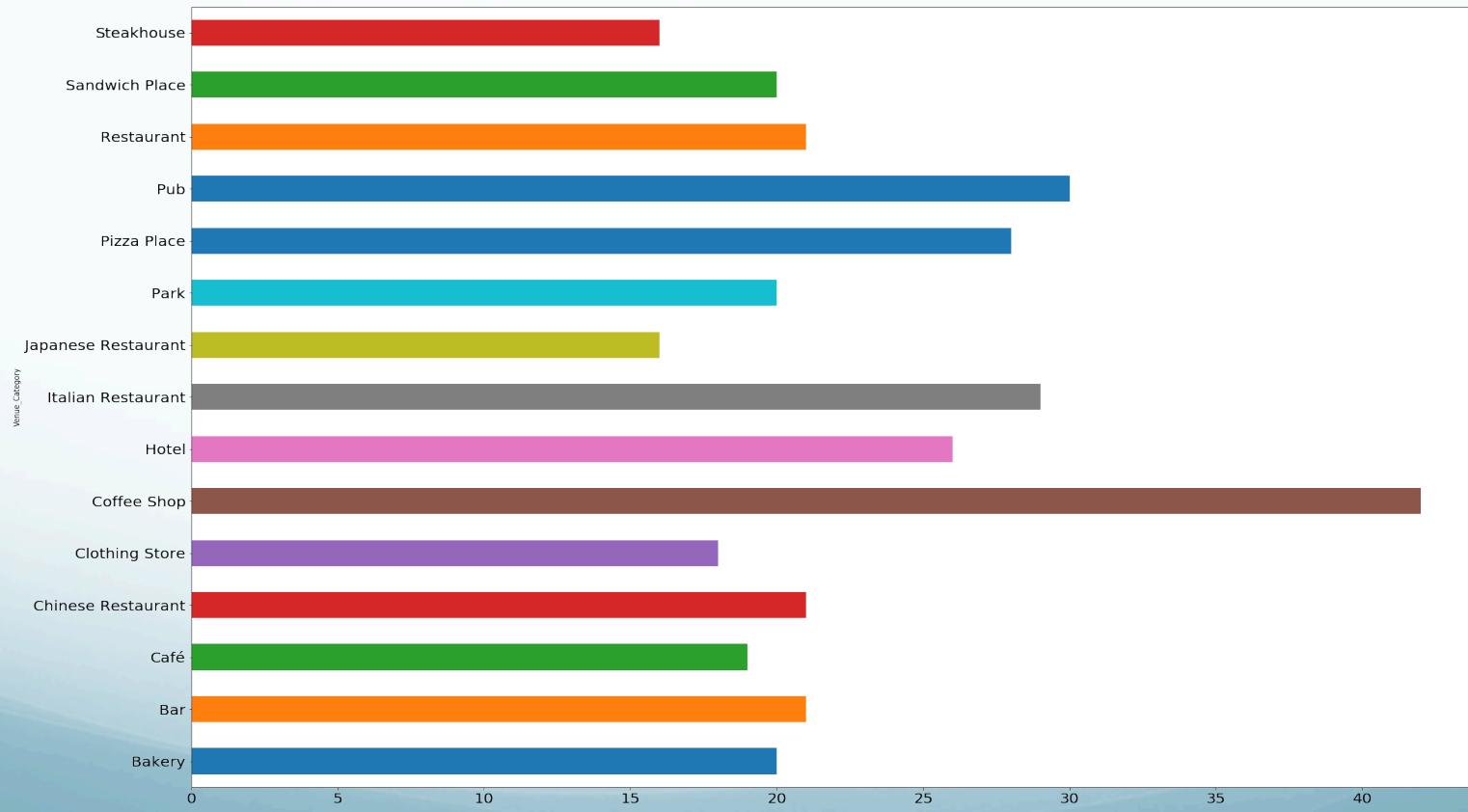
Coffee shops in each neighbourhood

- With Foursquare it was possible to find the coffee shops or cafés in each neighbourhood

	Community	Community Latitude	Community Longitude	Venue	Venue Latitude	Venue Longitude	Venue_Category
0	Altadore	51.0151	-114.1007	Monogram Coffee	51.010967	-114.100054	Coffee Shop
1	Banff Trail	51.0714	-114.1116	Weeds Cappucino Bar	51.070377	-114.104793	Coffee Shop
2	Bankview	51.0338	-114.0995	Starbucks	51.031653	-114.095192	Coffee Shop
3	Beltline	51.0404	-114.0725	Starbucks	51.042703	-114.071435	Coffee Shop
4	Beltline	51.0404	-114.0725	Philosafy	51.037911	-114.076205	Café

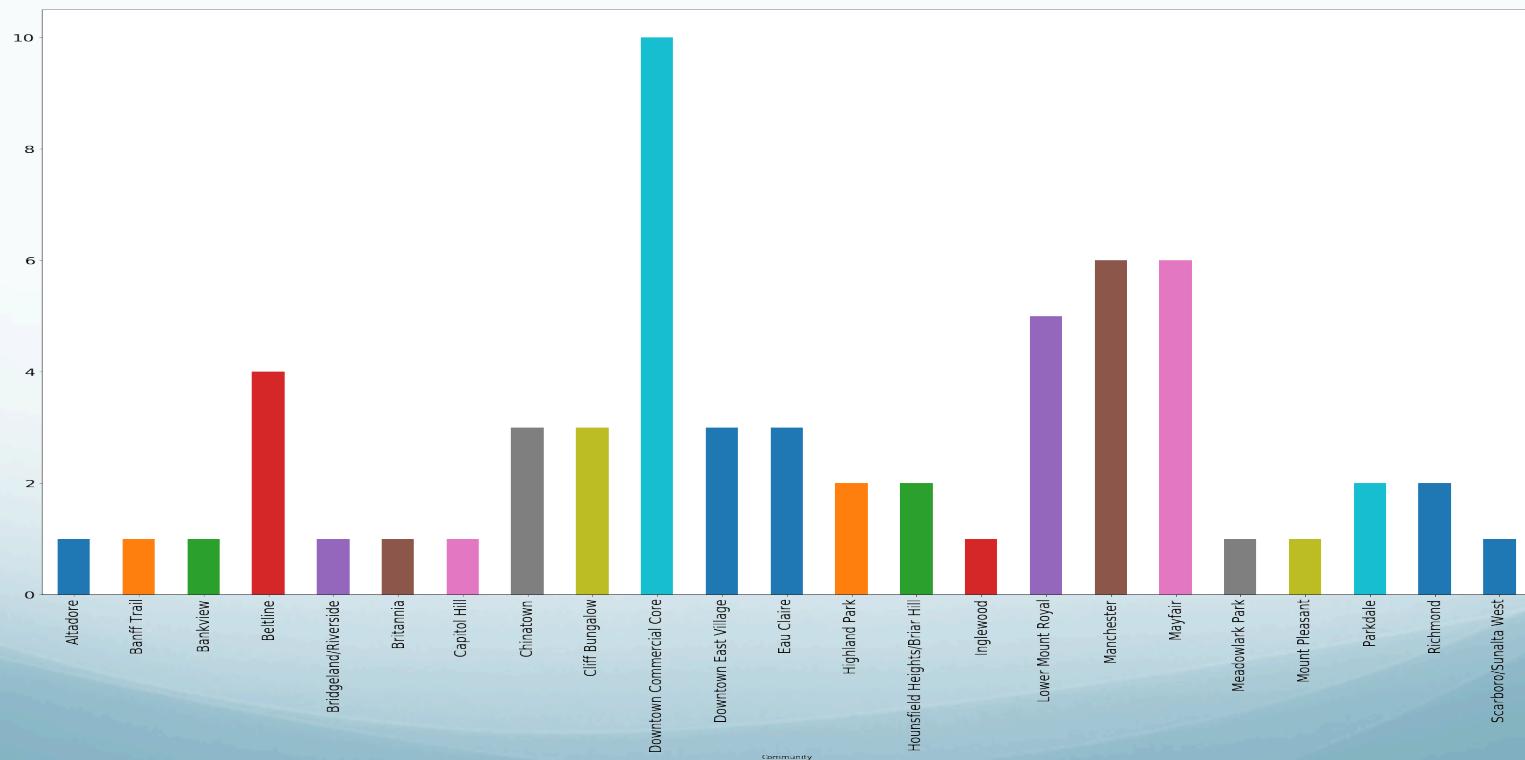
Coffee shops compared to other venues

- According to Foursquare, coffee shops and cafes are the most numerous venues in Calgary



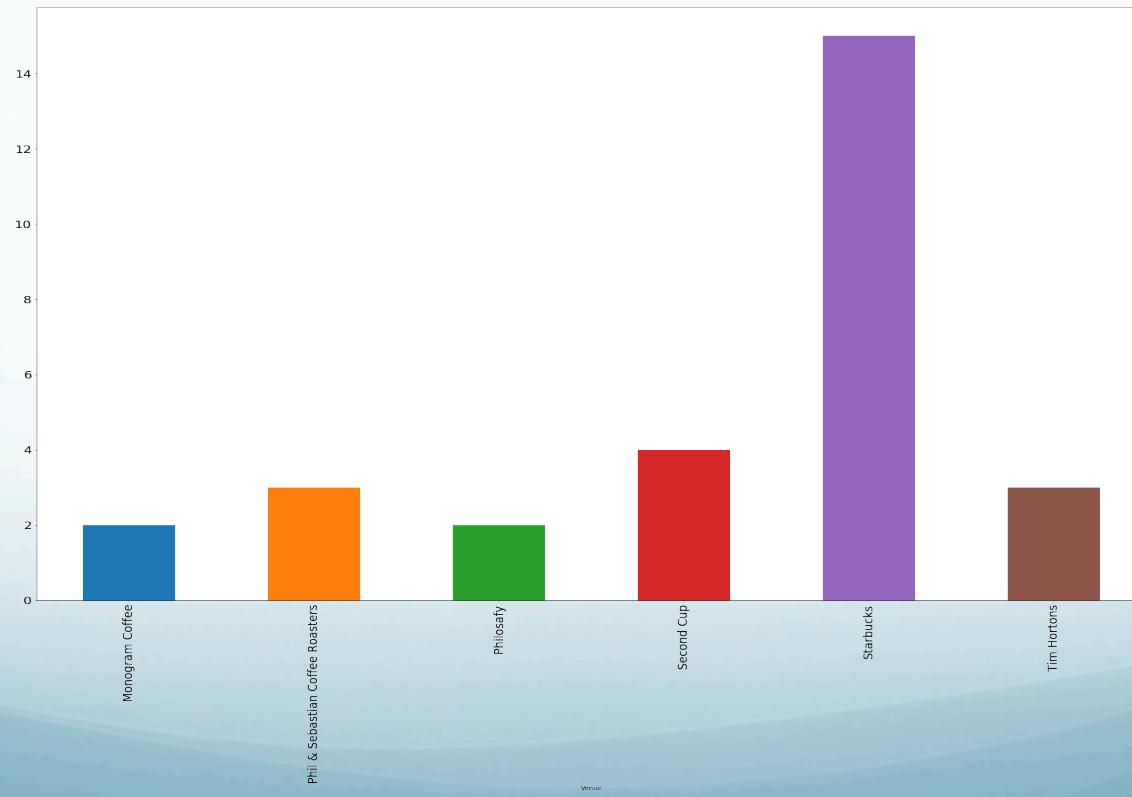
Neighbourhood with the highest number of coffee shops

- The Downtown Commercial Core, where all the big companies are located, is the place with the highest number of cafés



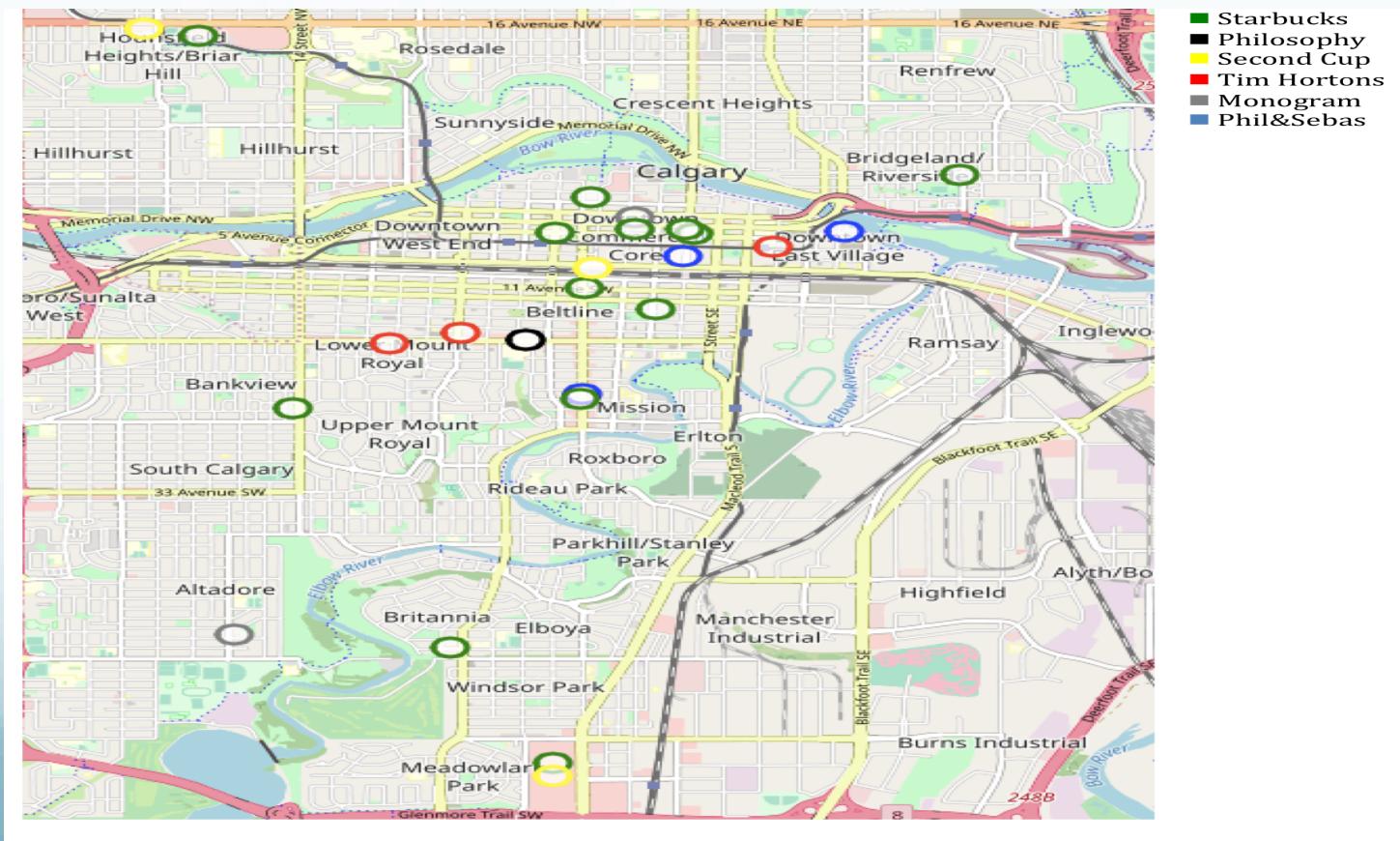
Different types of coffee shops

- There is a huge variety of coffee shops in Calgary. These are the ones that have the highest number of locations



Location of coffee shops

- With the aid of Foursquare, the different coffee shops are located in this map



Conclusions

- The different venues in Calgary were found and located on a map
- The coffee shops and cafés were separated from the rest because they were predominantly more than the rest of venues.
- The neighbourhood in Calgary with the highest number of coffee shops was the Downtown Commercial Core
- The type of coffee shop that had more locations was Starbucks, followed by Tim Hortons.