



BEST FOOD IN
VANCOUVER

Dongning Sun

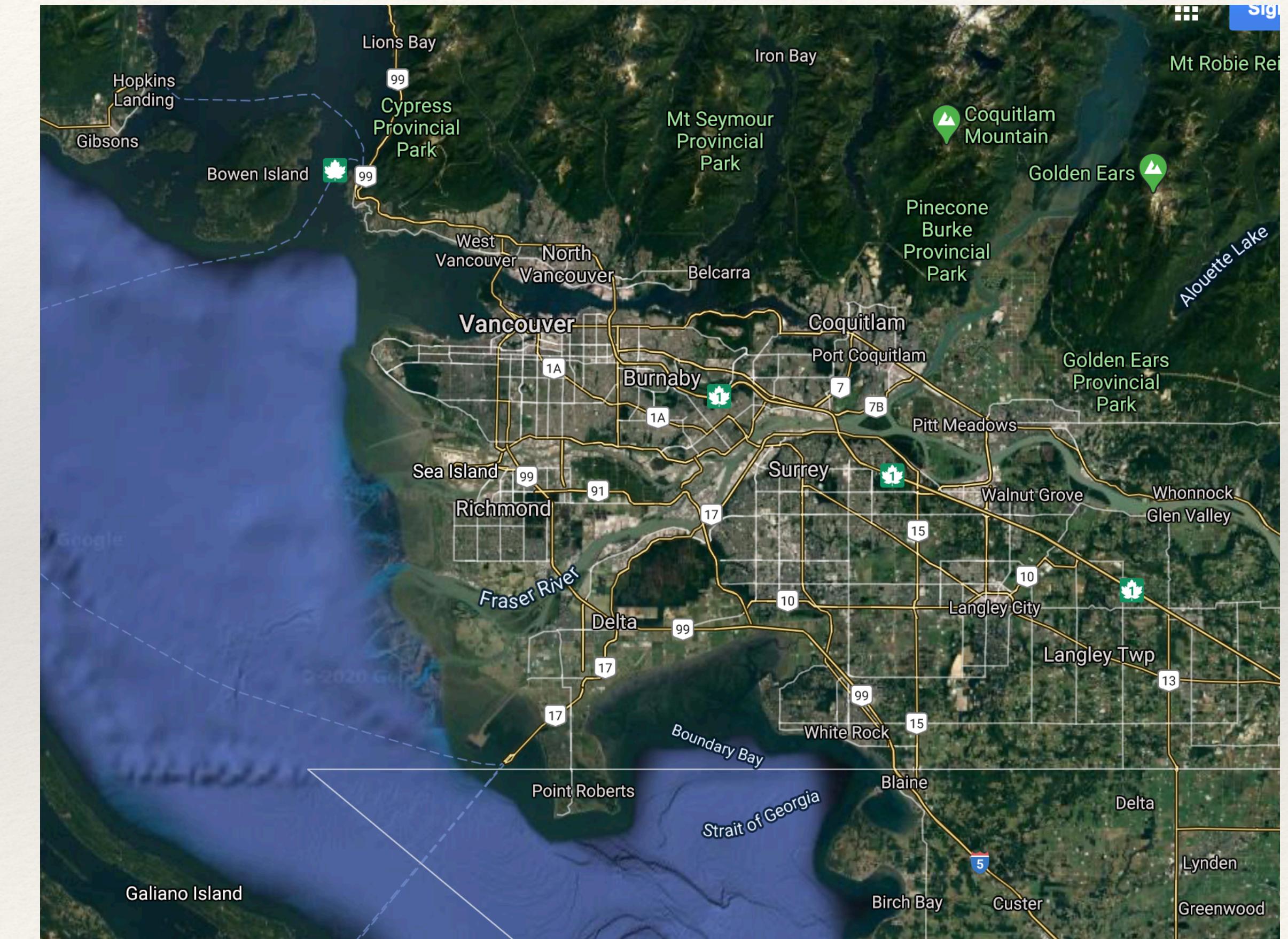
The Battle of Neighborhood



Investigate the promising location and type of cuisine of opening up a restaurant in Vancouver

Problem Statement

- ❖ Find out where to open up to the restaurant and what cuisine type to offer in the restaurant
- ❖ Target Audience: For whoever is new to Vancouver and is interested in opening up a restaurant in the city - without prior personal preference or resource

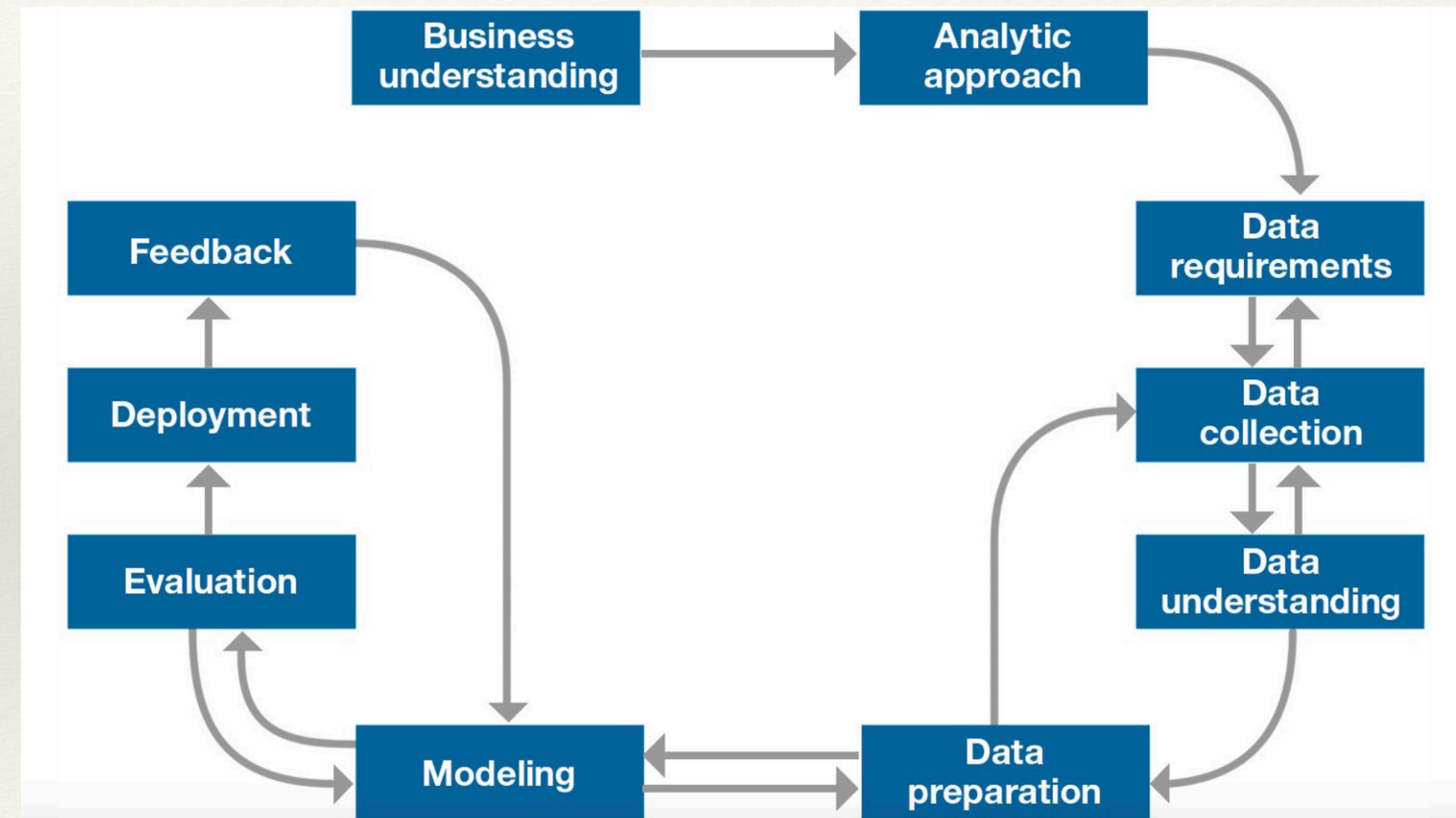


Introduction

- ❖ Vancouver: the most densely and diversely populated city in Canada
 - ❖ Provide great service industry opportunities - especially restaurants
 - ❖ Existing 1405 restaurants in Greater Vancouver Area, and possibly many more...
- ❖ Restaurant Location and cuisine type: two of the most important factors for restaurants
- ❖ Information of existing restaurant will be used to provide insight for new restaurant opening.

Methodology

- ❖ A sub-section of the given data-science methodology
- ❖ Data collection (based on defined data requirement)
- ❖ Data preparation
- ❖ Data analysis-modeling
- ❖ Evaluation, conclusion and discussion

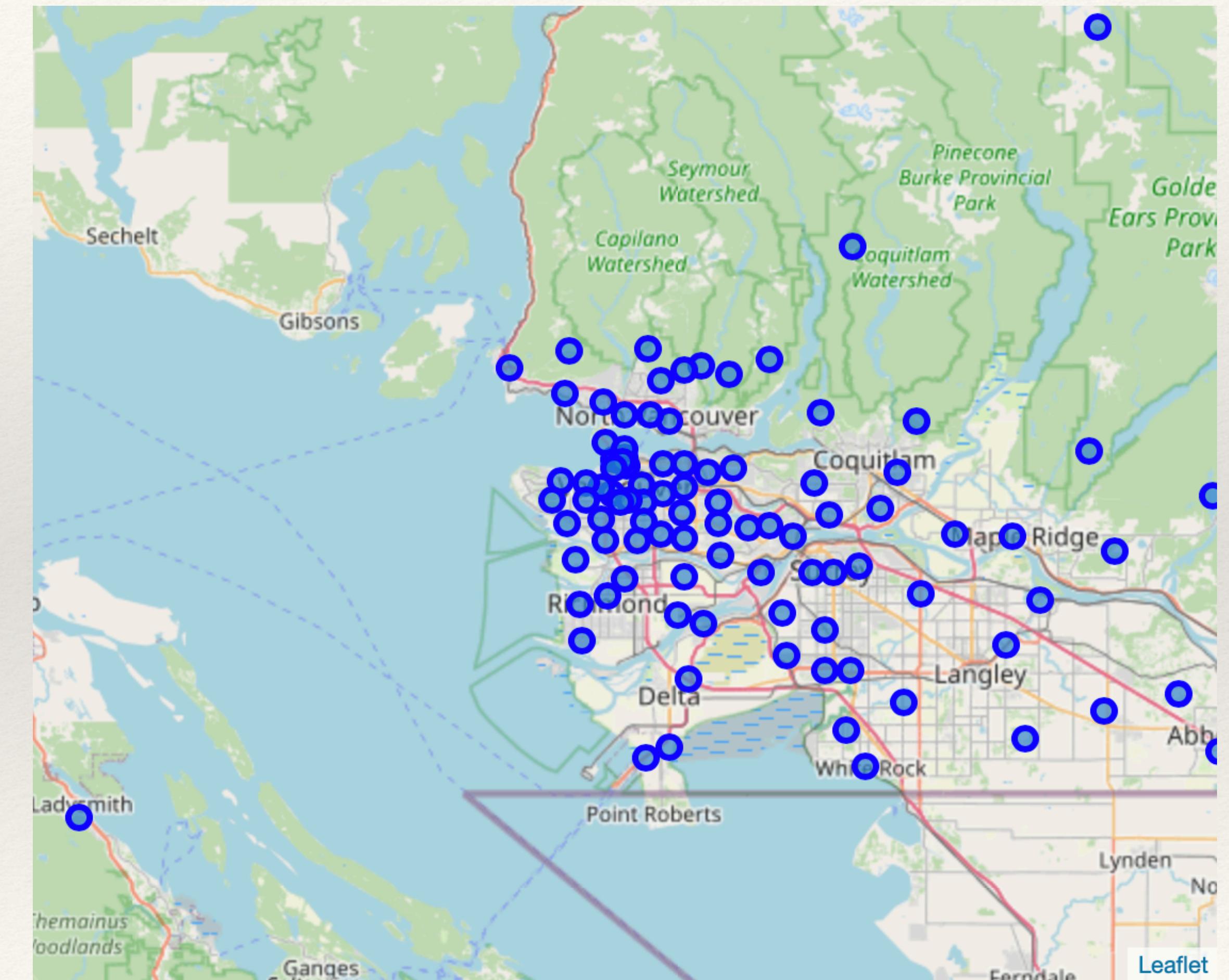


Information Research and Data pre-processing

- ❖ Geographic information of Vancouver Neighborhood
 - ❖ Neighborhood with postal code: [List of postal codes of Canada: V](#)
 - ❖ Postal code with geo coordinates: [geonames](#)
- ❖ Restaurant Information
 - ❖ Four Square API

Geographic Information of V. Neighborhood

- ❖ Geographic information of Vancouver Neighborhood
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Restaurant Venues Information

❖ Four-Square API

❖

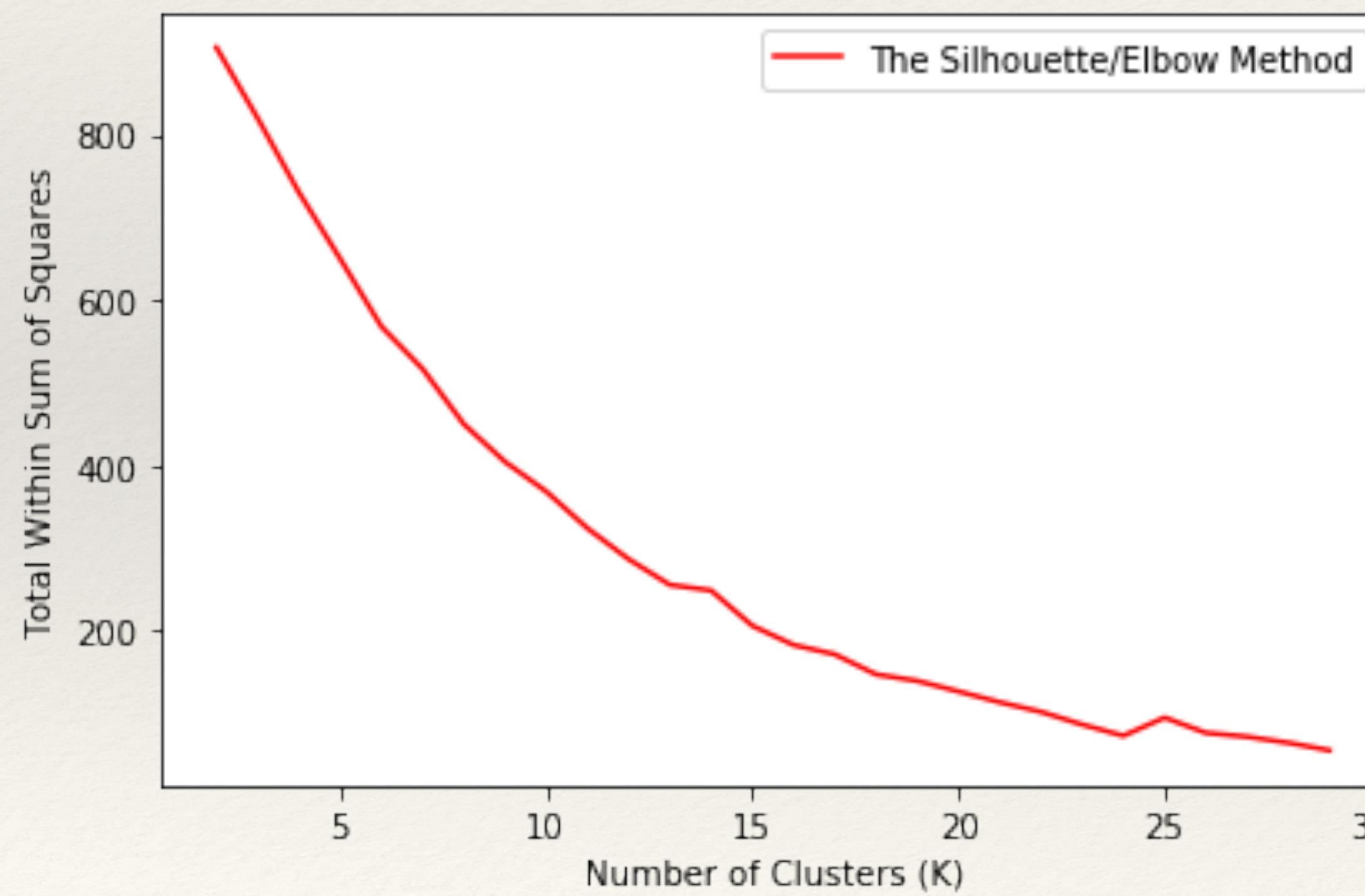
	Neighborhood	Latitude	Longitude	Venue Name	Venue Latitude	Venue Longitude	Venue Category
1	Port Coquitlam Central	49.2740	-122.7649	Pho Tan Phat	49.271024	-122.755339	Vietnamese Restaurant
2	Port Coquitlam Central	49.2740	-122.7649	San Remo Pizza	49.267577	-122.773518	Italian Restaurant
27	White Rock	49.0259	-122.8058	Uli's Restaurant	49.021369	-122.805943	Restaurant
28	White Rock	49.0259	-122.8058	Taka's Sushi	49.023651	-122.800515	Japanese Restaurant
30	White Rock	49.0259	-122.8058	Kappa Japanese Restaurant	49.028604	-122.799631	Japanese Restaurant

df1.shape

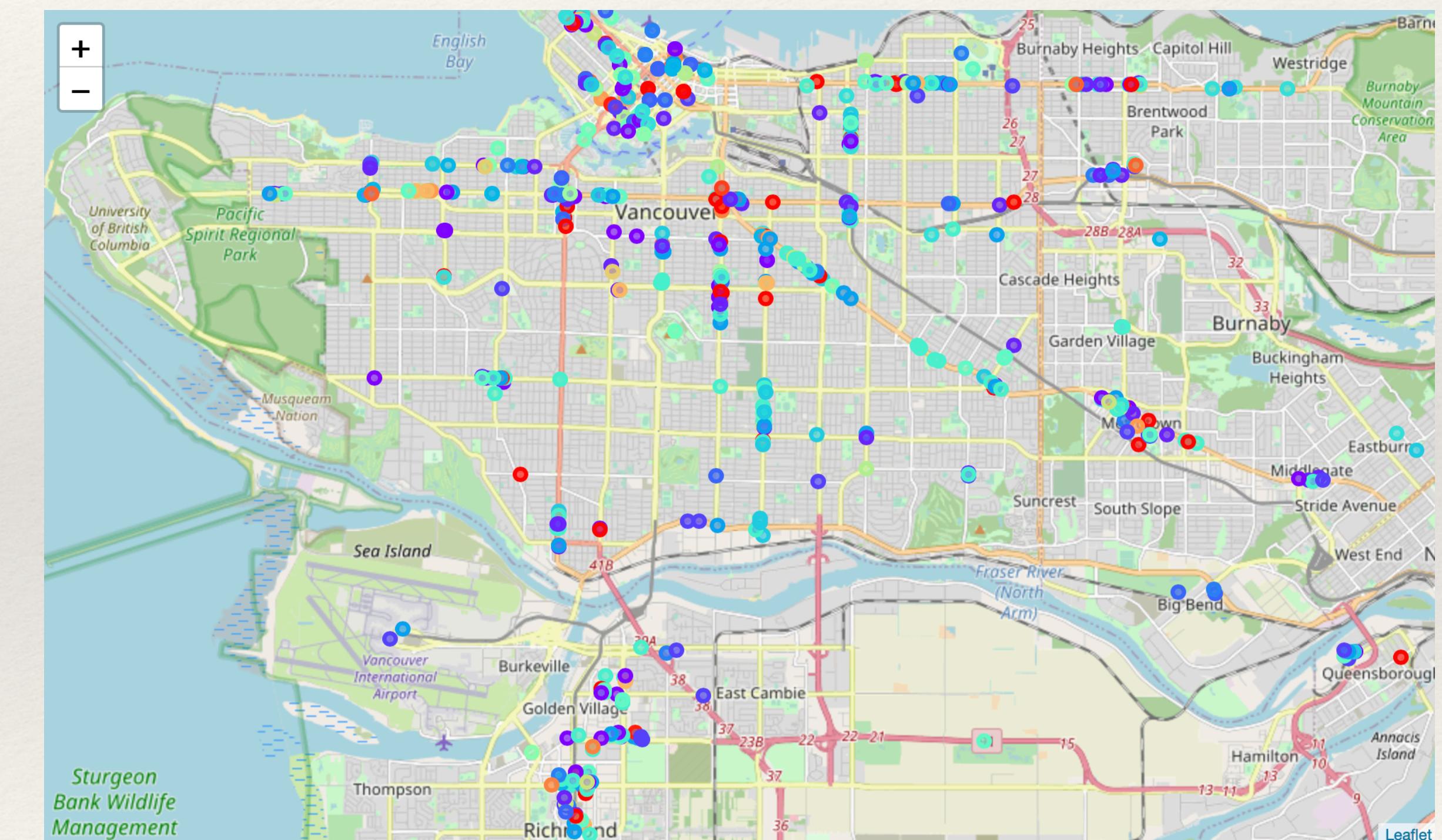
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Modeling - clusters of venues

- ❖ k-Means clustering ($k = 24$) of different restaurant venues

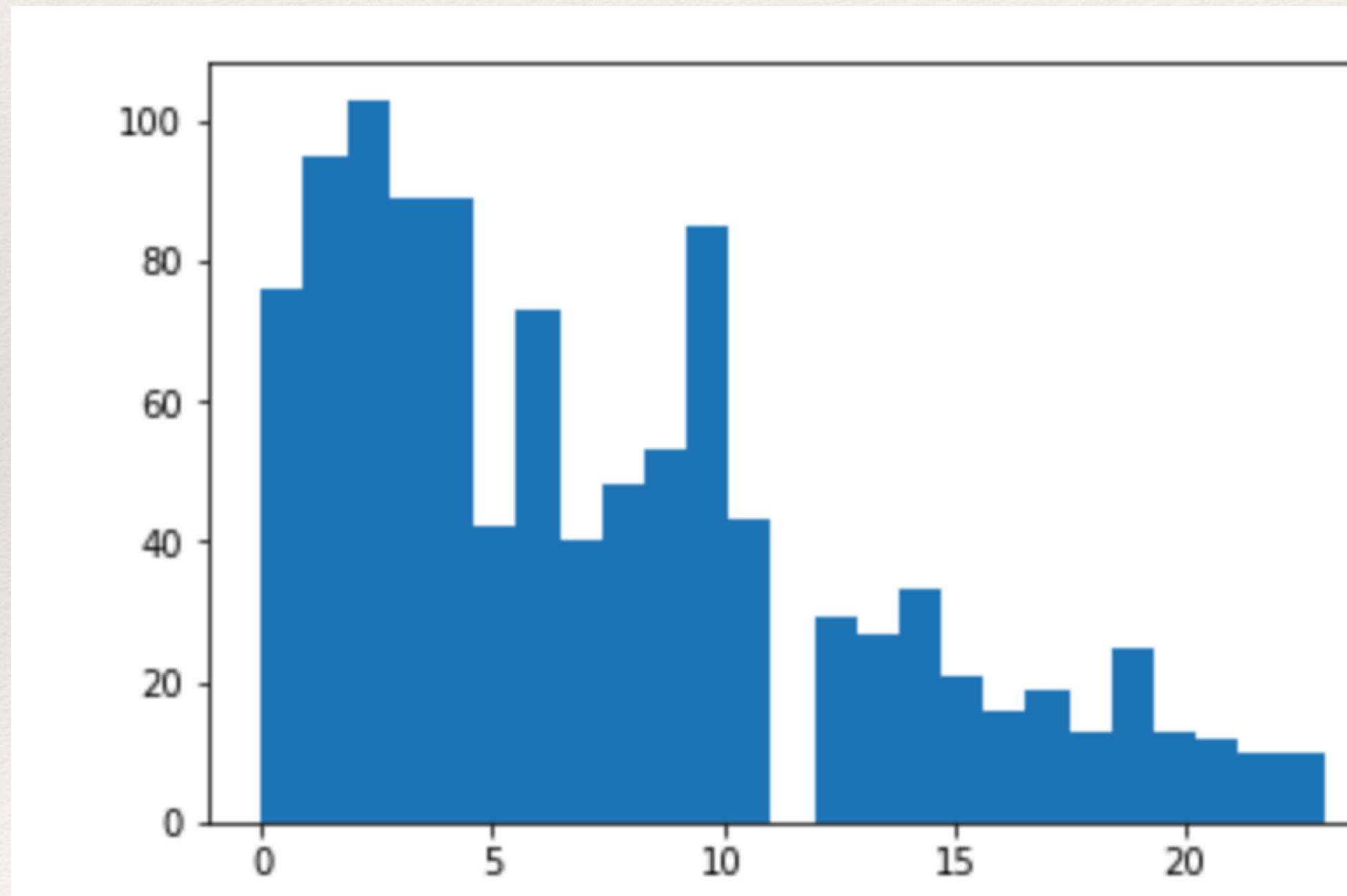


- ❖ Clustered restaurants geo location view



Evaluation of the clusters

- ❖ Cluster numbers with the amount of each bins
- ❖ Top six clusters occupying more than half of the restaurants



Label	Venue categories	Amount
1	Japanese	103
2	Sushi	95
3	Fast Food	89
4	Restaurant	89
10	Chinese	85
0	Various type	76
Sum		537

Evaluation of clusters- Japanese

	Neighborhood	No. of Jap Restaurant
0	RichmondCentral	8
1	Vancouver(SE West End / Davie Village)	8
2	Burnaby(Burnaby Heights / Willingdon Heights /...	8
3	Vancouver(West Kitsilano / West Point Grey / J...	7
4	Vancouver(North Grandview-Woodland)	7
5	Vancouver(SW Downtown)	7
6	Vancouver(West Fairview / Granville Island / N...	7
7	Vancouver(West Mount Pleasant / West Riley Par...	7

double click to hide

Evaluation of clusters- Chinese

	Neighborhood	No. of Chinese Restaurant
0	RichmondCentral	9
1	Vancouver(South Renfrew-Collingwood)	8
2	Vancouver(SE Riley Park-Little Mountain / SW K...	7
3	RichmondNorth	7
4	Vancouver(West Kensington-Cedar Cottage / NE R...	6

Conclusions and discussions

- ❖ Proposal:
- ❖ Venue Category: Japanese Restaurant
- ❖ Venue Location: Richmond Central
- ❖ Safe Choice
- ❖ Provides expansion opportunities
- ❖ Limitations of this research
- ❖ FourSquare free account API returns not detailed-enough information
- ❖ Neighborhood population density, income, age and ethnicity demographic information is not sufficient
- ❖ Companies and businesses (potential restaurant customers) around the neighborhood is not
- ❖ Needs further investigation

Reference

Brend, Y. (2020). Restaurant Eye ‘Soft’ Reopening and Warn another Hard Close could Shut Doors for Good. CBC News. Published on 21.04.2020, available at <<https://www.cbc.ca/news/canada/british-columbia/restaurant-reopen-covid-vancouver-economy-1.5539693>>. Date Retrieved: 02/05.2020.

Crofit, E. (2010). *Best Food in Vancouver*. Available at <<http://www.ellecroft.com/blog/2010/04/best-of-vancouver-food-and-drink/>> Date retrieved: 02.05.2020.

Wikipedia, (N.D.) *List of postal codes of Canada: V*. Available at <https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_V> Date retrieved: 02.05.2020.

Geonames (2011) *Zip Code List*. Available at <geonames.org> Date retrieved: 02.05.2020







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Thank you

IBM Coursera Data Science Capstone
Project