

# Data Capstone Project

Battle of Neighbourhoods

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# Introduction

- Investors are looking for an opportunity to open a sushi bar in Santiago de Chile and have engaged the help of our consultants to find a profitable location.

# Business Problem

- Use the Foursquare to obtain information on the communes or localities of Singapore.
- The target audience are students and office workers.
- Location should meet the following requirements:
  - Close proximity to schools, universities and offices
  - Not near to other sushi bar

# Data

- From Wikipedia (tables)
  - Locations - [https://es.wikipedia.org/wiki/Anexo:Comunas de Chile por poblaci%C3%B3n](https://es.wikipedia.org/wiki/Anexo:Comunas_de_Chile_por_poblaci%C3%B3n)
  - Post Codes- [https://es.wikipedia.org/wiki/Anexo:C%C3%B3digos postales de Chile](https://es.wikipedia.org/wiki/Anexo:C%C3%B3digos_postales_de_Chile)
- From Files
  - Geo Location - <https://raw.githubusercontent.com/ssikam/My-Capstone-Project/master/chile%20geo%20public.csv>
- From Foursquare
  - Venues Categories - <https://developer.foursquare.com/docs/resources/categories>
  - Sushi - 4bf58dd8d48988d1d2941735
  - Highschool - 4bf58dd8d48988d13d941735
  - University - 4bf58dd8d48988d1ae941735
  - Office - 4d4b7105d754a06375d81259



# Methodology

- Extract the various sources of information including:
  - Locations, postal codes, geographical locations.
- Use "Metropolitan of Santiago" filter, select the metropolitan region leaving a total of 52 localities.
- Join all the bases leaving a size of 52.4
- Keep track of information of sushi bars, schools, universities and offices from Foursquare based on the venues.
- Tabulate each of the 4 categories for each locality

# Methodology

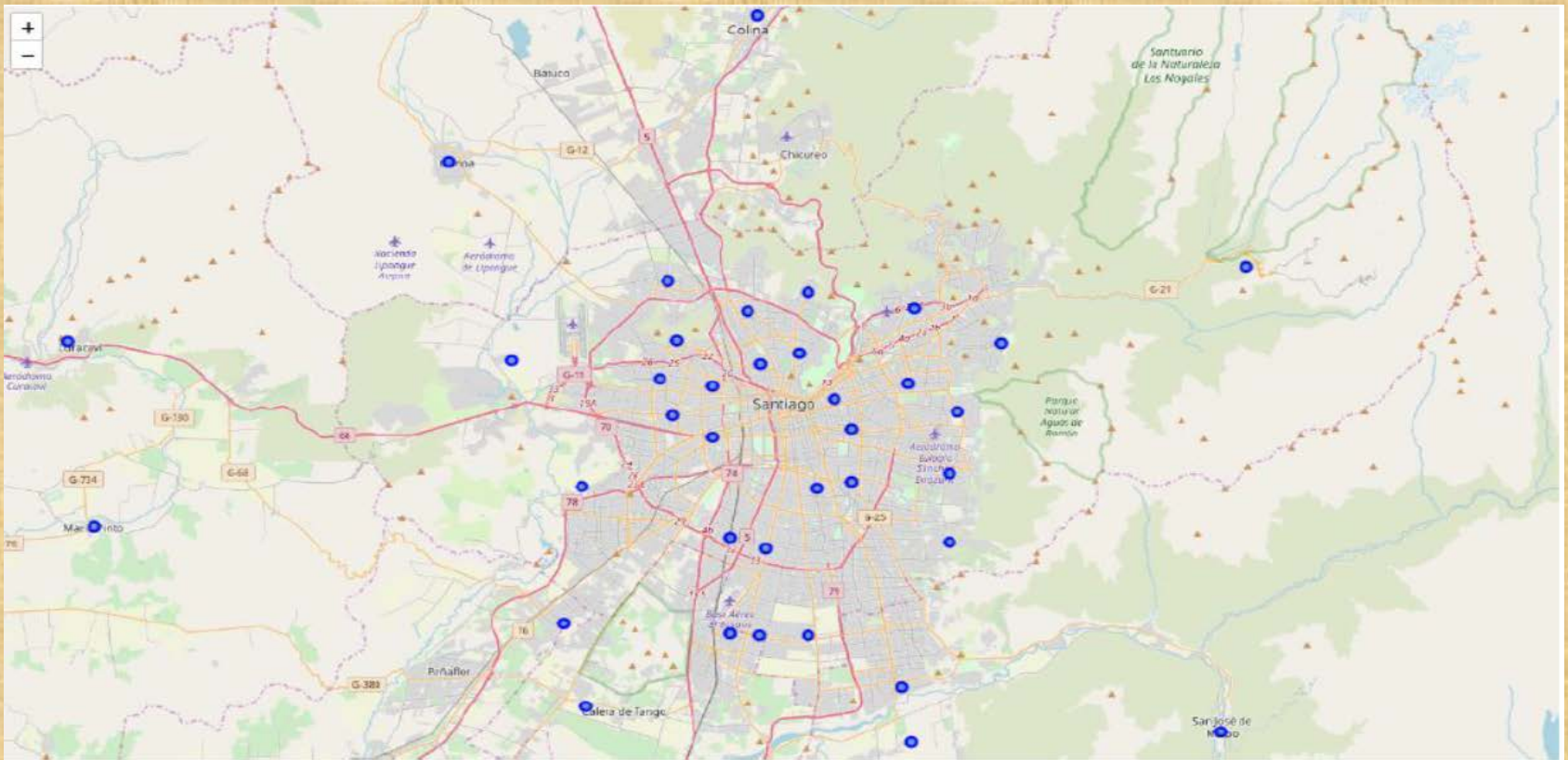
Implement a scoring system for each category based on the table below:

<u>Category</u>	<u>Description</u>	<u>Points</u>
<u>Sushi Bar</u>	Close proximity to other similar bars will mean less business	-1
<u>Schools</u>	Students usually have a smaller allowance	+1
<u>Universities</u>	Universities students have a higher allowance than school students but lower income than Office Workers	+2
<u>Offices</u>	Office Workers have the highest income which means higher profitability	+3

For each category, we tabulate a final score and sort the results in descending order. The location with the highest score shall be the best location to set up our sushi bar.

# Results

## Map of “Metropolitana de Santiago” Localities





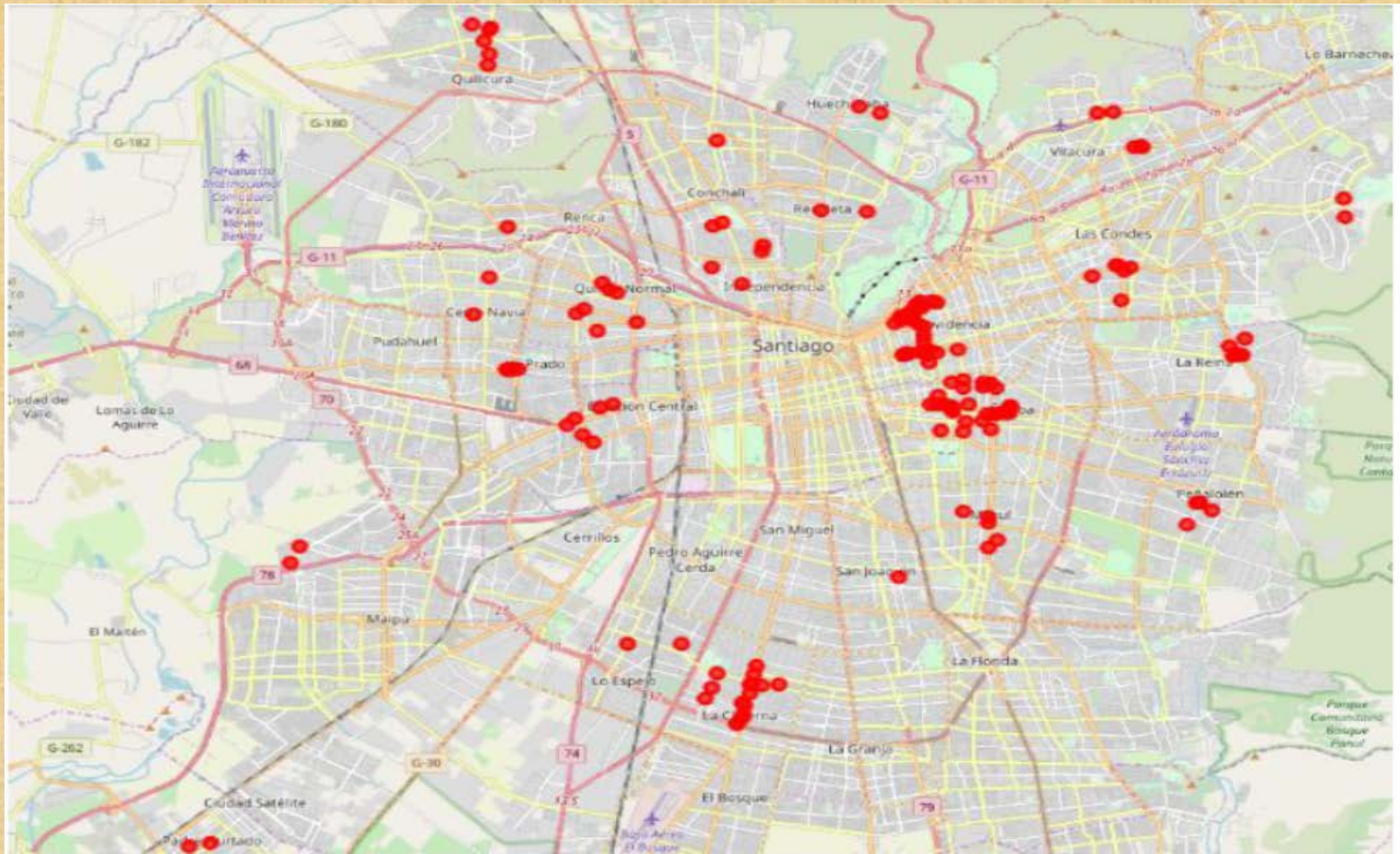
# Results

## Geo Locations of “Metropolitana de Santiago” Localities

	Borough	Neighborhood	Lat	Lon
0	Metropolitana de Santiago	Puente Alto	-33.616	-70.570
1	Metropolitana de Santiago	Maipú	-33.490	-70.788
2	Metropolitana de Santiago	Santiago	-33.425	-70.566
3	Metropolitana de Santiago	La Florida	-33.525	-70.538
4	Metropolitana de Santiago	San Bernardo	-33.582	-70.687
5	Metropolitana de Santiago	Las Condes	-33.400	-70.503
6	Metropolitana de Santiago	Peñalolén	-33.482	-70.538
7	Metropolitana de Santiago	Pudahuel	-33.411	-70.836
8	Metropolitana de Santiago	Quilicura	-33.361	-70.729
9	Metropolitana de Santiago	Ñuñoa	-33.454	-70.604
10	Metropolitana de Santiago	La Pintana	-33.583	-70.634

# Results

## Locations of Sushi Bars in Santiago



# Results

## Statistics in Santiago

- Sushi Bars: 184
- High Schools: 137
- Universities: 138
- Offices: 1654



# Results

## Grouping by Category

	Borough	Localidad	Lat	Lon	Sushi	High Schools	Universities	Offices
0	Metropolitana de Santiago	Puente Alto	-33.616	-70.570	6.0	4.0	0.0	44.0
1	Metropolitana de Santiago	Maipú	-33.490	-70.788	2.0	1.0	0.0	16.0
2	Metropolitana de Santiago	Santiago	-33.425	-70.566	6.0	9.0	4.0	49.0
3	Metropolitana de Santiago	La Florida	-33.525	-70.538	0.0	0.0	0.0	19.0
4	Metropolitana de Santiago	San Bernardo	-33.582	-70.687	3.0	6.0	0.0	48.0



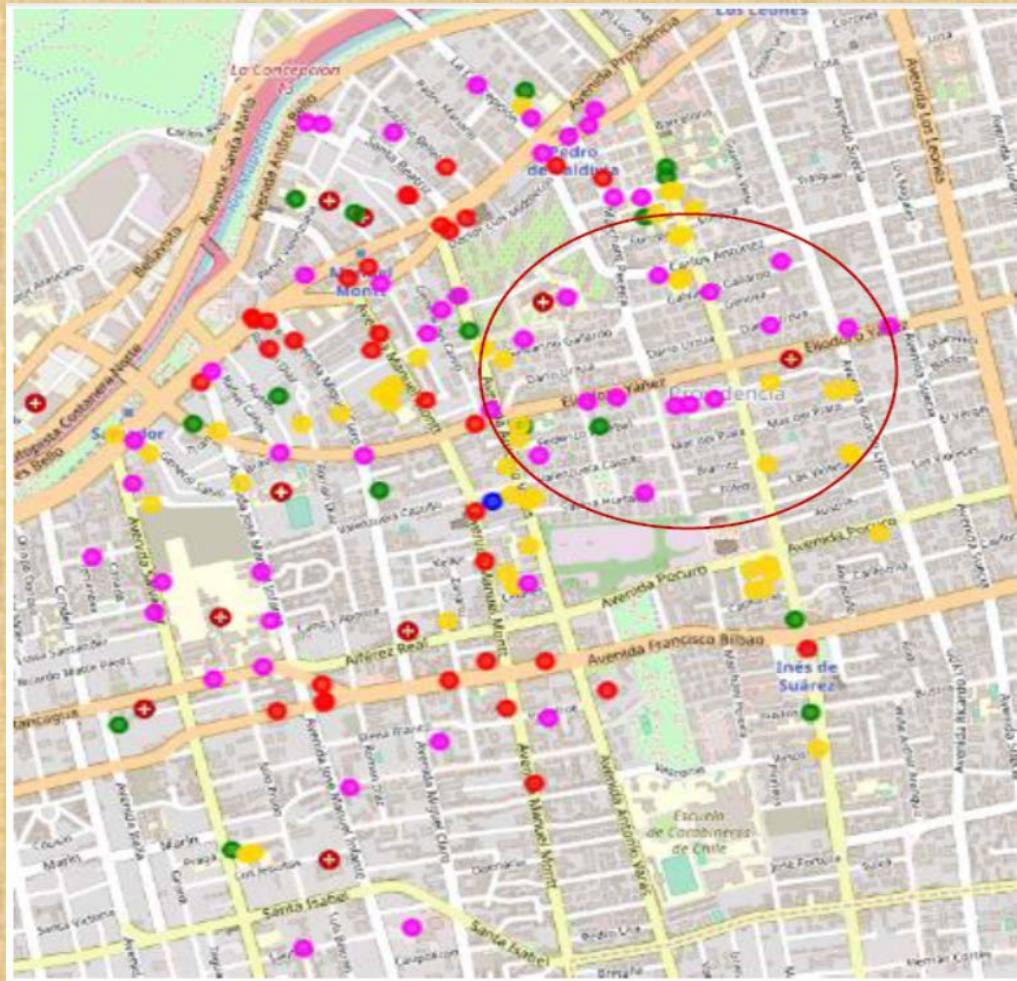
# Results

## Tabulation of Final Score

- The locality with the highest score is ‘Providencia’ with 234 points which shows that this is the best location to setup our sushi bar to have the highest profitability.

	Localidad	Score
16	Providencia	234.0
5	Las Condes	218.0
32	San Joaquín	179.0
2	Santiago	158.0
21	Macul	154.0
9	Ñuñoa	154.0
12	Recoleta	153.0
44	Curacaví	152.0
33	La Reina	152.0
25	Lampa	152.0

# Discussion



- The red dots show the locations of our competitors.
- The green, gold and fuchsia dots show the locations of the high schools, universities and offices respectively
- Best Location is where the yellow, green and fuchsia dots are concentrated and also away from the red dots
- Best location is on Elidoro Yáñez street.

# Conclusion

- In this study, I have learnt how to choose a profitable location to set up a new business using data analysis.
- To improve our analysis, more competitors can be added. For example, all types of Japanese restaurants including Ramen.