

1. Introduction

After losing her job, Macarena decided that the compensation money she will use in her venture: a sushi bar. It will be located in Santiago de Chile so you should investigate where is the best location.

Business problem

To open a sushi place, you must use the Foursquare information on the communes or localities of Santiago (Chile). Santiago has 52 different localities (communes) and our challenge is to find the best one. For this we define our target audience:

- a. High schools
- b. Universities
- c. Offices

The above serves to ensure that we have enough customers and that we are not so close to other sushi places.

2. Data

To find the best location for our sushi place, we will use the following sources of information:

From Wikipedia (tables)

Locations 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

From Files

Geo Location (latitude, longitude for each locality)

<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

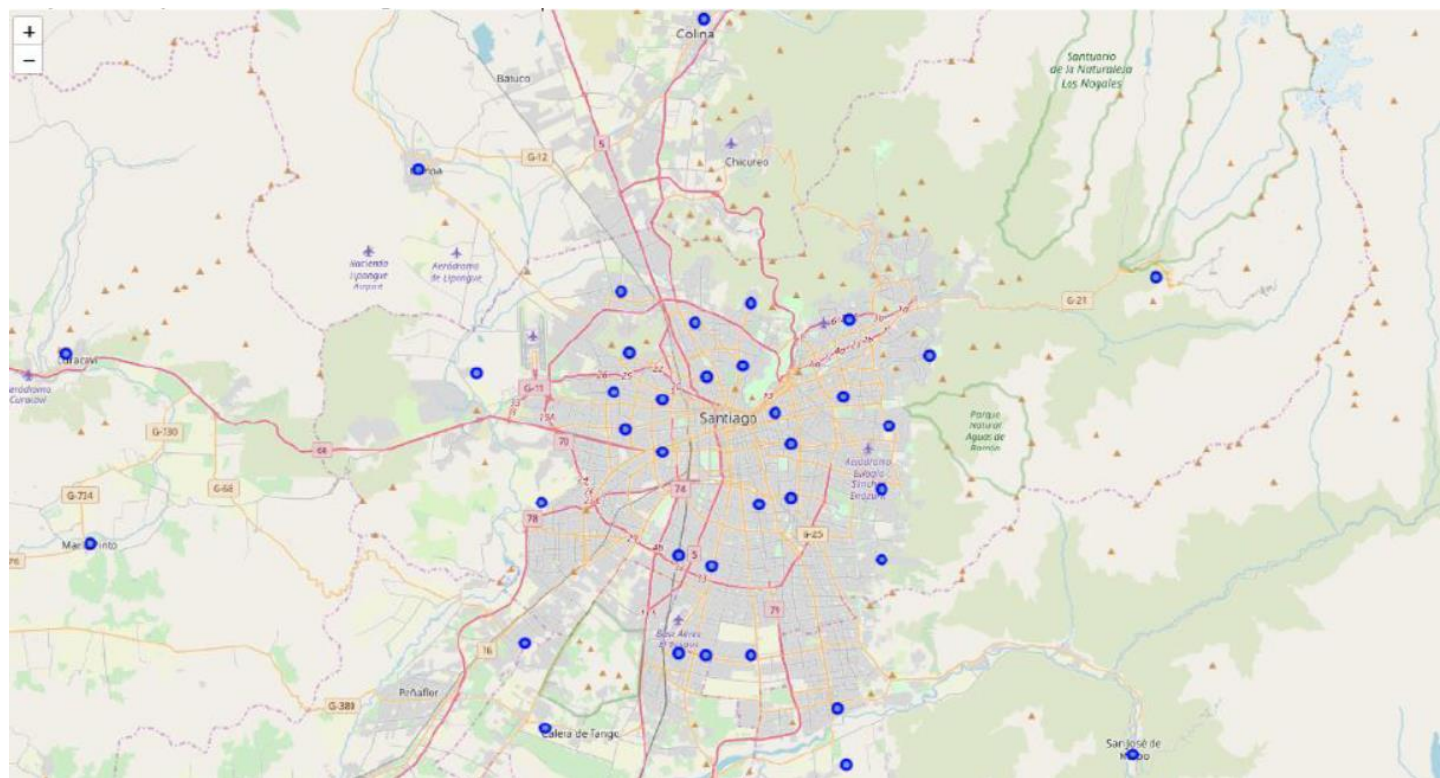
3. Methodology

- We import the different sources of information: Locations, postal codes, geographical location. There is a total of 346 locations in Chile.
- We select only the localities of the Metropolitan Region, that is, we use the "Metropolitan of Santiago" filter, leaving a total of 52 localities.
- Join all the bases, leaving a size of (52.4)
- For each location we look for the information of sushi restaurants, schools, universities and offices from Foursquare (venues)
- For each locality we group and count each one of the 4 categories
- We define weights for each category, depending on the recurrence that may have in our sushi bar
 - Sushi restaurant: -1 points (the more restaurants there are in a sector, the less important to us)
 - Schools: 1 point (they are good clients, but it depends on the money their parents give them)

- Universities: 2 points (they are good clients and with more economic independence than the students)
- Offices: 3 points (they are good clients and with their own resources)
- For each location we calculate a final score and order the resulting data from highest to lowest. The place with the highest score will be where we will put our sushi bar.

4. Results

Map “de Santiago” Localities

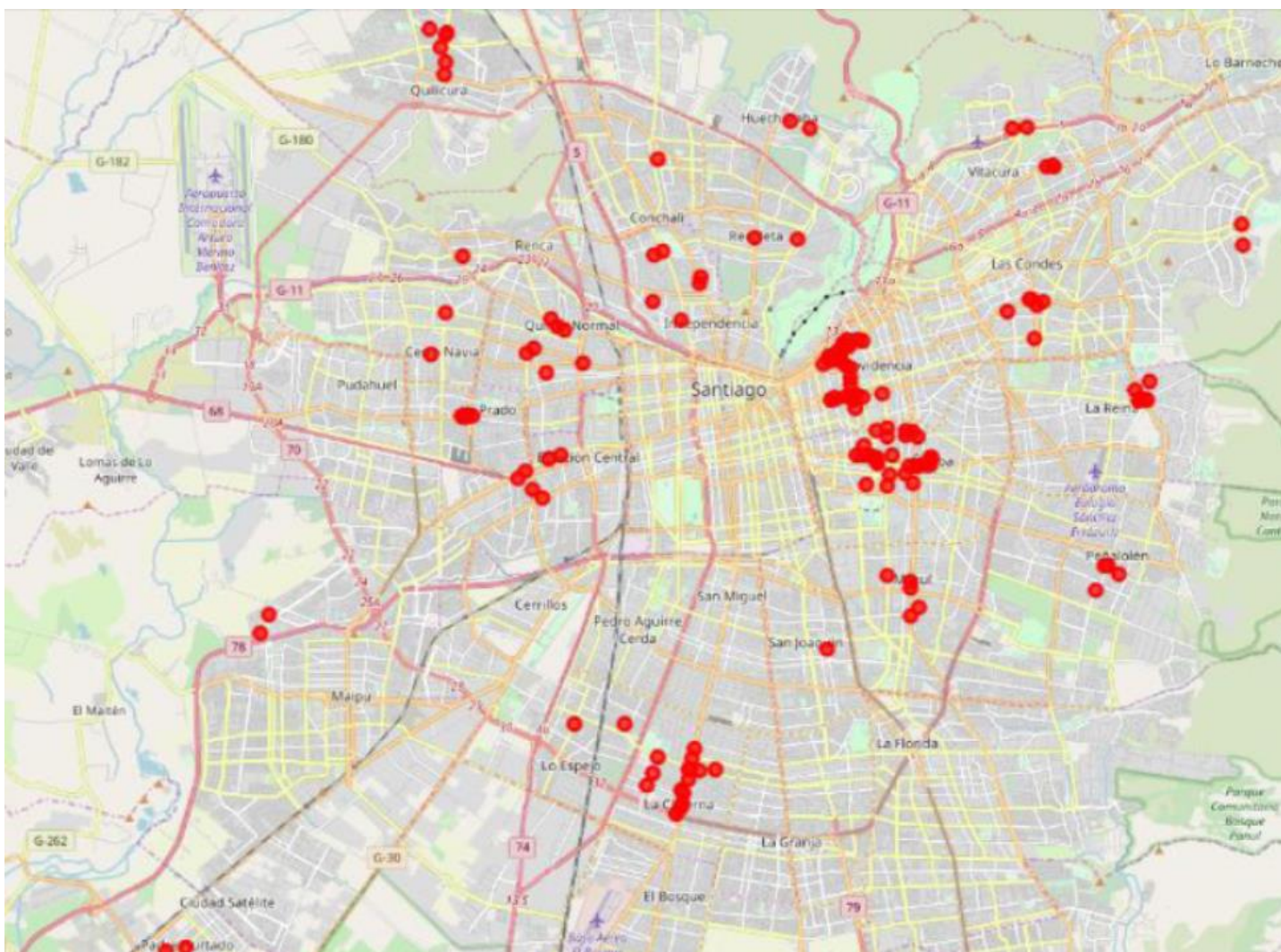


Geo Locations from “Metropolitana de Santiago” Localities

	Borough	Neighborhood	Lat	Lon		Borough	Neighborhood	Lat	Lon
0	Metropolitana de Santiago	Puente Alto	-33.616	-70.570	13	Metropolitana de Santiago	Renca	-33.398	-70.723
1	Metropolitana de Santiago	Maipú	-33.490	-70.788	14	Metropolitana de Santiago	Estación Central	-33.459	-70.699
2	Metropolitana de Santiago	Santiago	-33.425	-70.566	15	Metropolitana de Santiago	Colina	-33.194	-70.668
3	Metropolitana de Santiago	La Florida	-33.525	-70.538	16	Metropolitana de Santiago	Providencia	-33.435	-70.616
4	Metropolitana de Santiago	San Bernardo	-33.582	-70.687	17	Metropolitana de Santiago	Cerro Navia	-33.422	-70.735
5	Metropolitana de Santiago	Las Condes	-33.400	-70.503	18	Metropolitana de Santiago	Conchalí	-33.380	-70.675
6	Metropolitana de Santiago	Peñalolén	-33.482	-70.538	19	Metropolitana de Santiago	Melipilla	-33.689	-71.208
7	Metropolitana de Santiago	Pudahuel	-33.411	-70.836	20	Metropolitana de Santiago	La Granja	-20.900	-69.617
8	Metropolitana de Santiago	Quilicura	-33.361	-70.729	21	Metropolitana de Santiago	Macul	-33.487	-70.604
9	Metropolitana de Santiago	Ñuñoa	-33.454	-70.604	22	Metropolitana de Santiago	Quinta Normal	-33.427	-70.699
10	Metropolitana de Santiago	La Pintana	-33.583	-70.634	23	Metropolitana de Santiago	San Miguel	-36.818	-71.966
11	Metropolitana de Santiago	El Bosque	-41.667	-73.317	24	Metropolitana de Santiago	Lo Barnechea	-33.352	-70.336
12	Metropolitana de Santiago	Recoleta	-33.406	-70.640	25	Metropolitana de Santiago	Lampa	-33.286	-70.878

	Borough	Neighborhood	Lat	Lon		Borough	Neighborhood	Lat	Lon
26	Metropolitana de Santiago	Pedro Aguirre Cerda	-33.583	-70.667	39	Metropolitana de Santiago	Talagante	-33.667	-70.931
27	Metropolitana de Santiago	Independencia	-33.413	-70.666	40	Metropolitana de Santiago	Paine	-33.812	-70.723
28	Metropolitana de Santiago	Lo Espejo	-33.522	-70.687	41	Metropolitana de Santiago	Padre Hurtado	-33.576	-70.800
29	Metropolitana de Santiago	Huechuraba	-33.368	-70.634	42	Metropolitana de Santiago	Isla de Maipo	-33.754	-70.886
30	Metropolitana de Santiago	Buín	-33.728	-70.739	43	Metropolitana de Santiago	El Monte	-33.684	-71.017
31	Metropolitana de Santiago	Lo Prado	-33.445	-70.726	44	Metropolitana de Santiago	Curacaví	-33.399	-71.137
32	Metropolitana de Santiago	San Joaquín	-33.491	-70.628	45	Metropolitana de Santiago	Pirque	-33.650	-70.564
33	Metropolitana de Santiago	La Reina	-33.443	-70.532	46	Metropolitana de Santiago	Calera de Tango	-33.628	-70.785
34	Metropolitana de Santiago	Peñaflor	-36.233	-72.333	47	Metropolitana de Santiago	Tiltil	-33.085	-70.925
35	Metropolitana de Santiago	La Cisterna	-33.529	-70.663	48	Metropolitana de Santiago	San José de Maipo	-33.644	-70.353
36	Metropolitana de Santiago	Vitacura	-33.378	-70.562	49	Metropolitana de Santiago	Maria Pinto	-33.515	-71.119
37	Metropolitana de Santiago	San Ramón	-25.351	-70.447	50	Metropolitana de Santiago	San Pedro	-33.900	-71.467
38	Metropolitana de Santiago	Cerrillos	-34.533	-71.683	51	Metropolitana de Santiago	Alhué	-34.033	-71.100

Sushi Restaurants in Santiago (184 places)



High Schools in Santiago (137 places)

Universities in Santiago (138 places)

Offices in Santiago (1654 places)

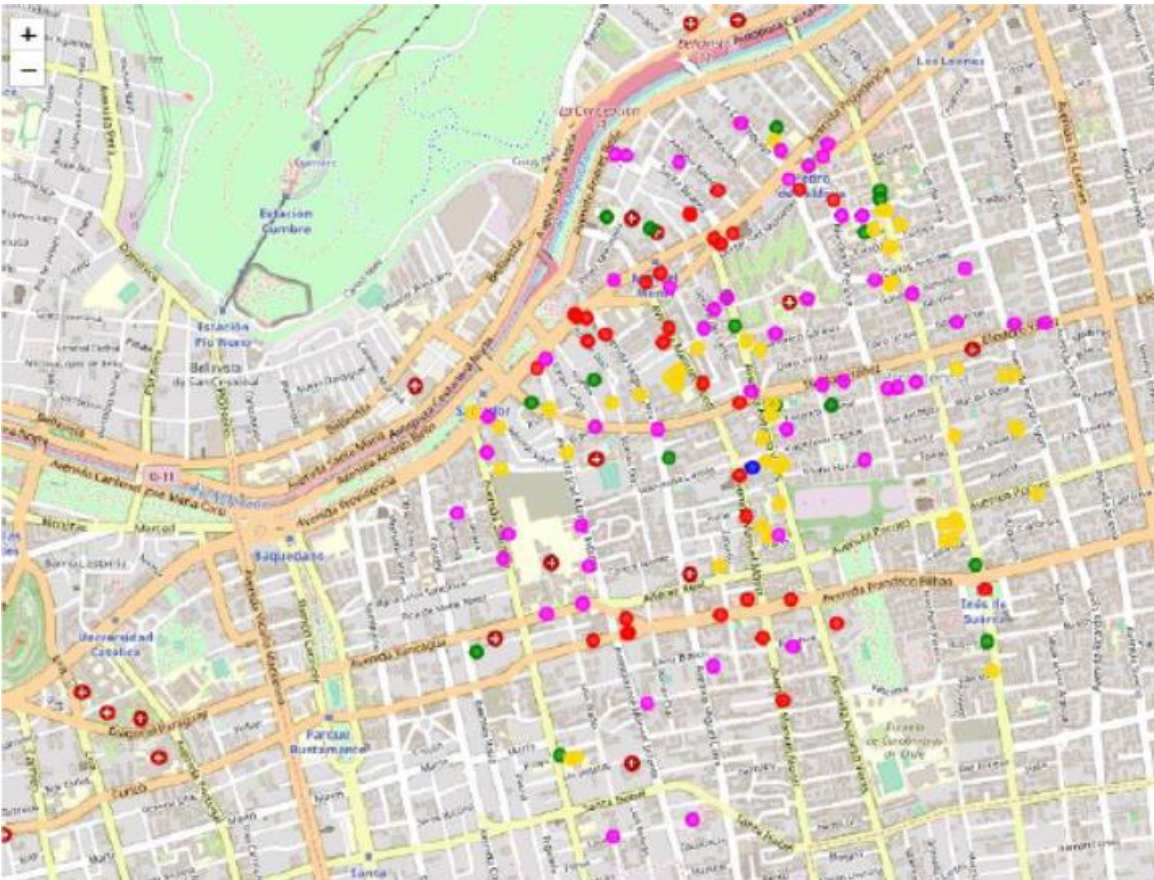
Grouping by category (show the first 5 results)

	Borough	Localidad	Lat	Lon	Sushi	High Schools	Universities	Offices
0	Metropolitana de Santiago	Puente Alto	-33.616	-70.570	5.0	4.0	0.0	46.0
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	18.0
4	Metropolitana de Santiago	San Bernardo	-33.582	-70.687	3.0	6.0	0.0	49.0

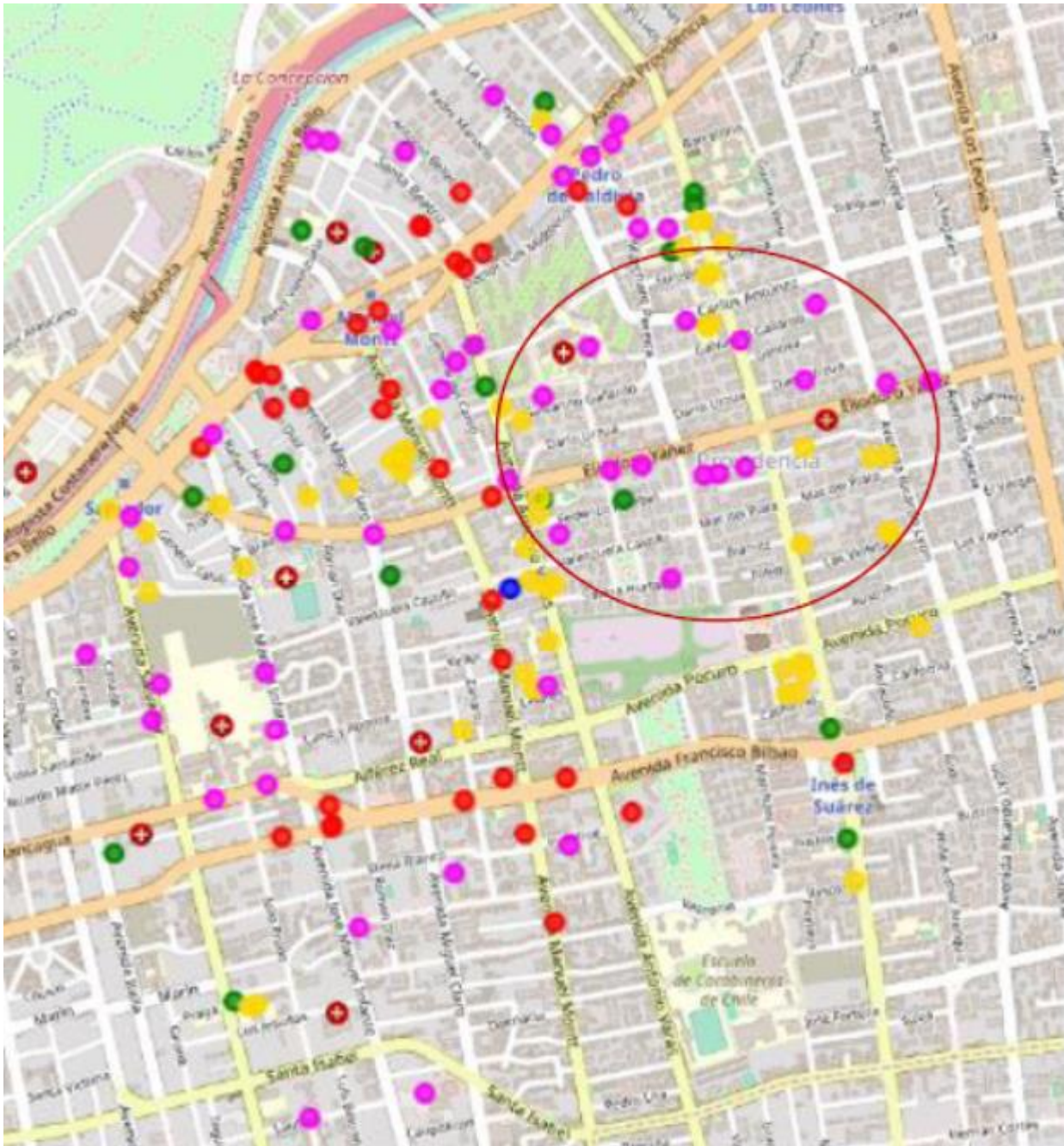
We calculate the final score

Localidad	Score	Localidad	Score	Localidad	Score	Localidad	Score
16	Providencia 234.0	26	Pedro Aguirre Cerda 149.0	17	Cerro Navia 140.0	41	Padre Hurtado 27.0
5	Las Condes 215.0	18	Conchalí 148.0	30	Buín 139.0	46	Calera de Tango 24.0
32	San Joaquín 179.0	28	Lo Espejo 148.0	0	Puente Alto 137.0	40	Paine 21.0
2	Santiago 158.0	33	La Reina 148.0	13	Renca 132.0	7	Pudahuel 12.0
9	Ñuñoa 158.0	10	La Pintana 146.0	15	Colina 128.0	50	San Pedro 6.0
12	Recoleta 156.0	19	Melipilla 146.0	48	San José de Maipo 83.0	45	Pirque 3.0
14	Estación Central 152.0	39	Talagante 145.0	3	La Florida 54.0	20	La Granja 3.0
44	Curacaví 152.0	35	La Cisterna 145.0	47	Tiltil 51.0	24	Lo Bamechea 0.0
25	Lampa 152.0	31	Lo Prado 144.0	1	Maipú 47.0	38	Cerrillos 0.0
21	Macul 151.0	29	Huechuraba 144.0	42	Isla de Maipo 33.0	37	San Ramón 0.0
27	Independencia 151.0	36	Vitacura 144.0	49	Maria Pinto 33.0	11	El Bosque 0.0
6	Peñalolén 151.0	8	Quilicura 143.0	43	El Monte 33.0	34	Peñaflor 0.0
4	San Bernardo 150.0	22	Quinta Normal 143.0	51	Alhué 33.0	23	San Miguel 0.0

The locality with best score is “Providencia” with 234 pts.
With this result we maximize the number of potential customers who will visit our sushi bar.



5. Discussion



- The red dots are the competition. If we review the places in depth, our sushi bar should be located where the yellow, green and fuchsia dots are concentrated.
- We can see that the best location then is on Elidoro Yáñez street.
- To improve the analysis, we can add more competitors, for example, night bars.