

# Medellín Chicharrón location.

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## 1 Introduction.

### 1.1 Problem.

Andrea thinks there is no specialized chicharron restaurant in Medellin knowing that this city culturally loves this dish because it is the best part of the Bandeja Paisa. But she does not know where the best spot for this restaurant would be having in mind that is a new category of the restaurant in the city.

### 1.2 Background.

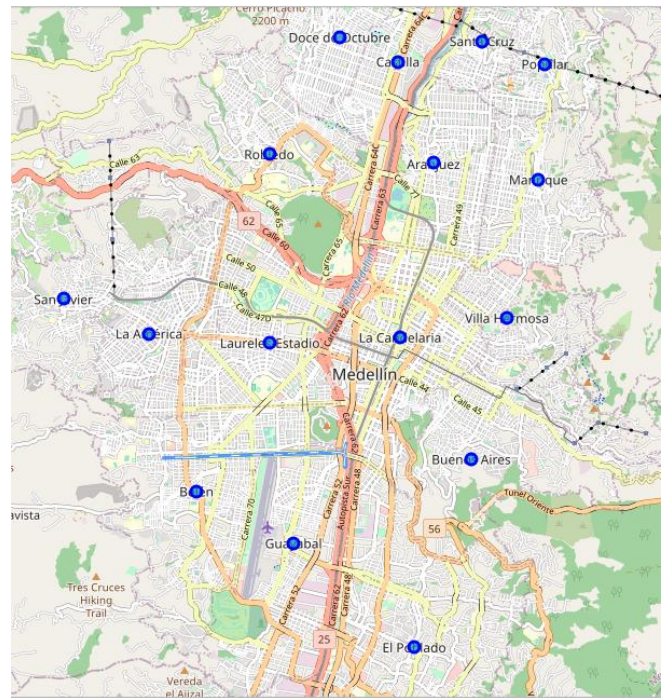
Andrea family have a unique recipe for this dish that they are willing to share and she also is taking a trip to get trained in Barranquilla, Colombia that has more than 10 specialized chicharron restaurant that works 24/7 so her venture has the best chicharron once it's launched.

## 2 Data acquisition and cleaning.

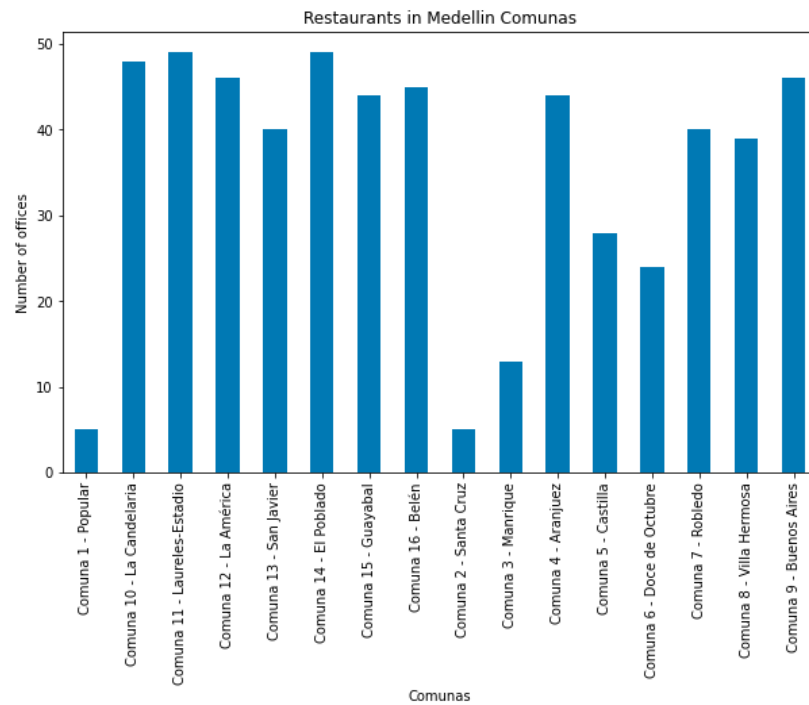
### 2.1 Data sources.

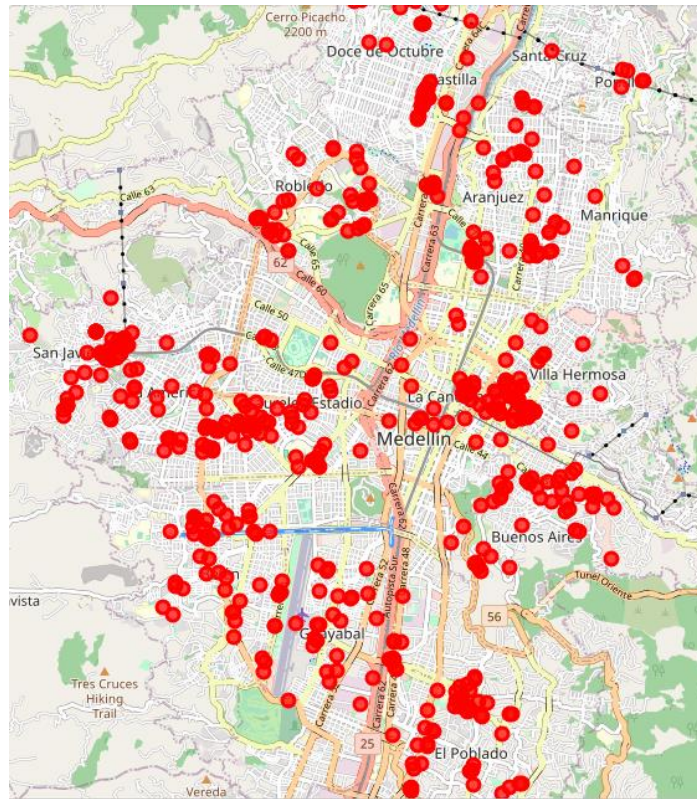
This project will rely on public data from Wikipedia and Foursquare. The data from the datasets from Wikipedia and Foursquare will be explored by considering the venues within the neighborhood of Medellin Comunas. These areas' restaurants, bars, offices, and hotels would be checked in terms of the amount within a certain mile radius. Due to Foursquare restrictions, the number of venues will be limited to 500 venues.

	Comunas	Latitude	Longitude
0	Comuna 1 - Popular	6.293344	-75.544825
1	Comuna 2 - Santa Cruz	6.296956	-75.554852
2	Comuna 3 - Manrique	6.275061	-75.545892
3	Comuna 4 - Aranjuez	6.277723	-75.562599
4	Comuna 5 - Castilla	6.293699	-75.568264
5	Comuna 6 - Doce de Octubre	6.297565	-75.577556
6	Comuna 7 - Robledo	6.279074	-75.588767
7	Comuna 8 - Villa Hermosa	6.253104	-75.550897
8	Comuna 9 - Buenos Aires	6.230779	-75.556594
9	Comuna 10 - La Candelaria	6.250102	-75.567915
10	Comuna 11 - Laureles-Estadio	6.249238	-75.588654
11	Comuna 12 - La América	6.250701	-75.607904
12	Comuna 13 - San Javier	6.256274	-75.621543
13	Comuna 14 - El Poblado	6.201092	-75.565665
14	Comuna 15 - Guayabal	6.217549	-75.584891
15	Comuna 16 - Belén	6.225745	-75.600348

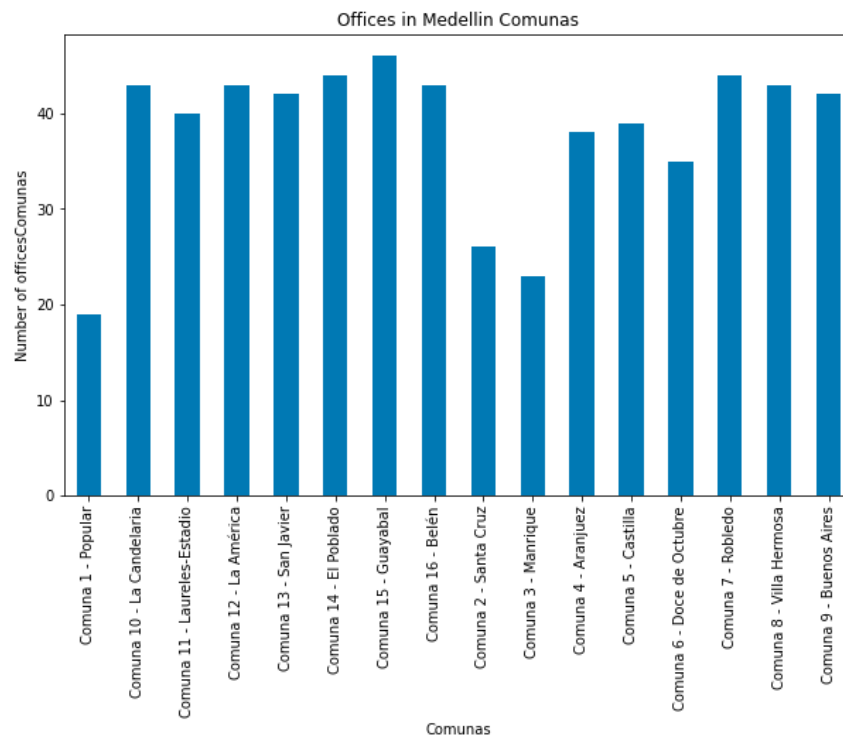


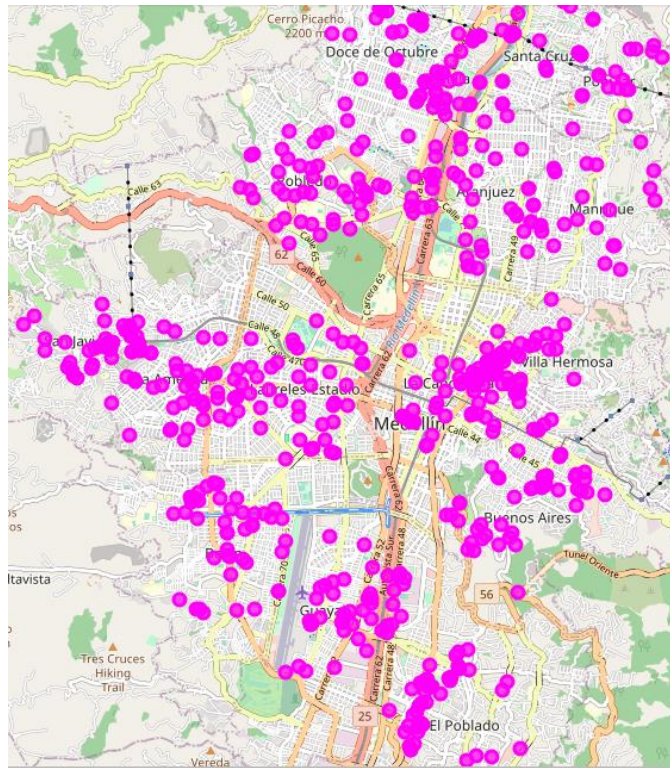
Restaurants in Medellin Comunas:



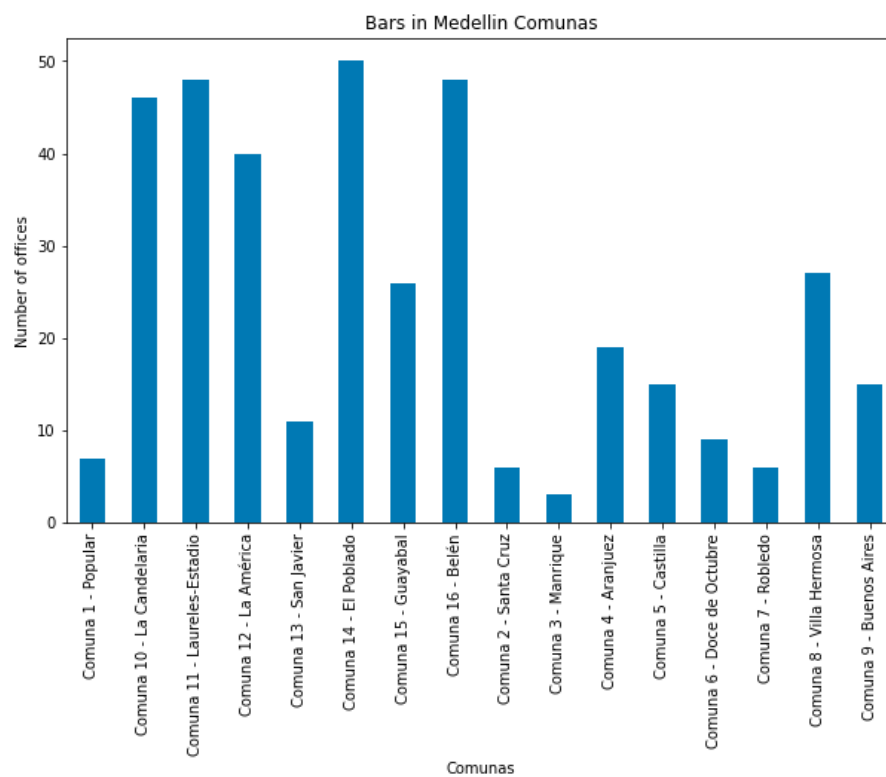


Offices in Medellín Comunas:

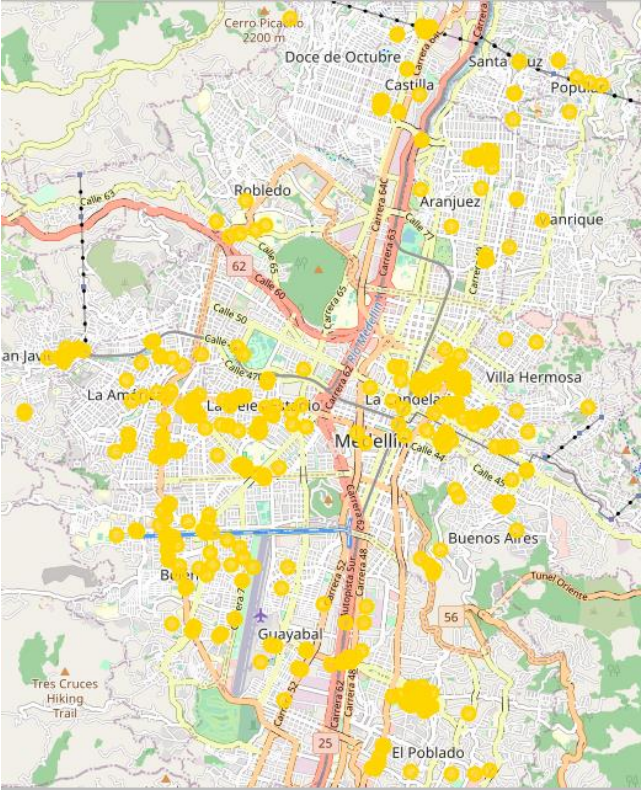




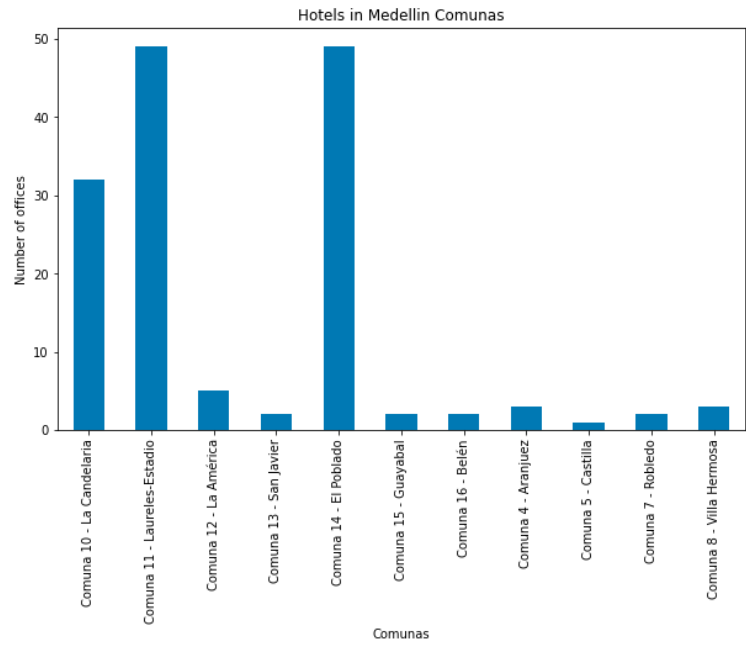
Bars in Medellín Comunas:

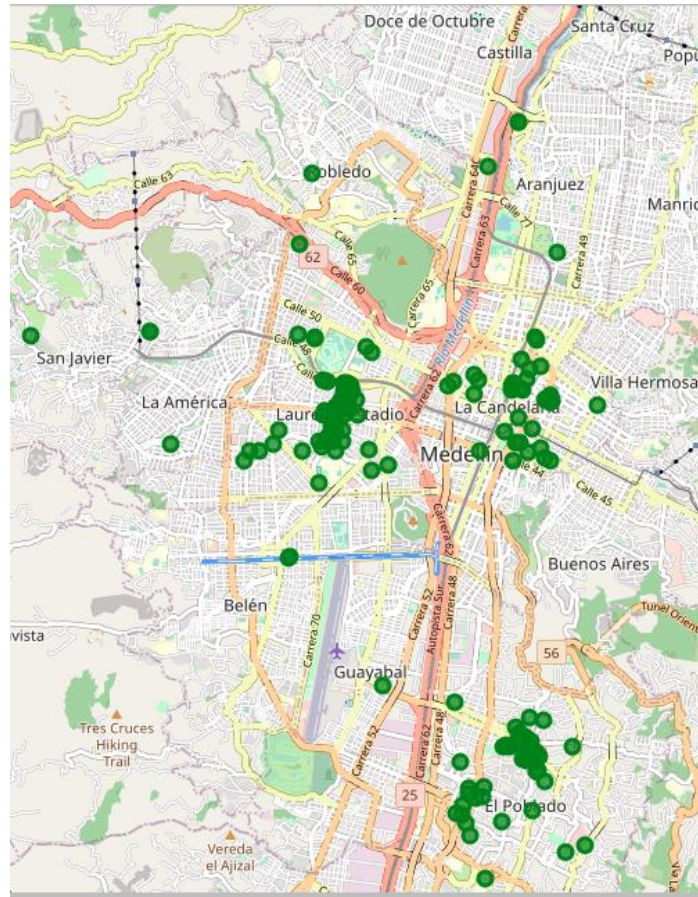






Hotels in Medellín Comunas:





### 3 Methodology.

For the selection of the right location for Andrea's restaurant we scored each Comunas based on the amount of different ventures in each Comunas.

	Comuna	Latitude	Longitude	Food	Offices	Nightlife Spot	Hotels
0	Comuna 1 - Popular	6.293344	-75.544825	5.0	19.0	7.0	0.0
1	Comuna 2 - Santa Cruz	6.296956	-75.554852	5.0	26.0	6.0	0.0
2	Comuna 3 - Manrique	6.275061	-75.545892	13.0	23.0	3.0	0.0
3	Comuna 4 - Aranjuez	6.277723	-75.562599	44.0	38.0	19.0	3.0
4	Comuna 5 - Castilla	6.293699	-75.568264	28.0	39.0	15.0	1.0
5	Comuna 6 - Doce de Octubre	6.297565	-75.577556	24.0	35.0	9.0	0.0
6	Comuna 7 - Robledo	6.279074	-75.588767	40.0	44.0	6.0	2.0
7	Comuna 8 - Villa Hermosa	6.253104	-75.550897	39.0	43.0	27.0	3.0
8	Comuna 9 - Buenos Aires	6.230779	-75.556594	46.0	42.0	15.0	0.0
9	Comuna 10 - La Candelaria	6.250102	-75.567915	48.0	43.0	46.0	32.0
10	Comuna 11 - Laureles-Estadio	6.249238	-75.588654	49.0	40.0	48.0	49.0
11	Comuna 12 - La América	6.250701	-75.607904	46.0	43.0	40.0	5.0
12	Comuna 13 - San Javier	6.256274	-75.621543	40.0	42.0	11.0	2.0
13	Comuna 14 - El Poblado	6.201092	-75.565665	49.0	44.0	50.0	49.0
14	Comuna 15 - Guayabal	6.217549	-75.584891	44.0	46.0	26.0	2.0
15	Comuna 16 - Belén	6.225745	-75.600348	45.0	43.0	48.0	2.0

Every category got weighted as follows:

- Positive weight, because Andrea wants to open a Chicharron joint and thus wants as much traffic as possible

Weight food = 0.1

- Positive weight because employees are even better customers

Weight offices = 0.25

- Positive weight because drunk people are the best customers for greasy food

Weight bars = 0.4

- Positive weight because tourist always want to taste a cultural dish and a lot like to party

Weight hotels = 0.35

## 4 Results.

With this a score was calculated, showing the best option with highest score.

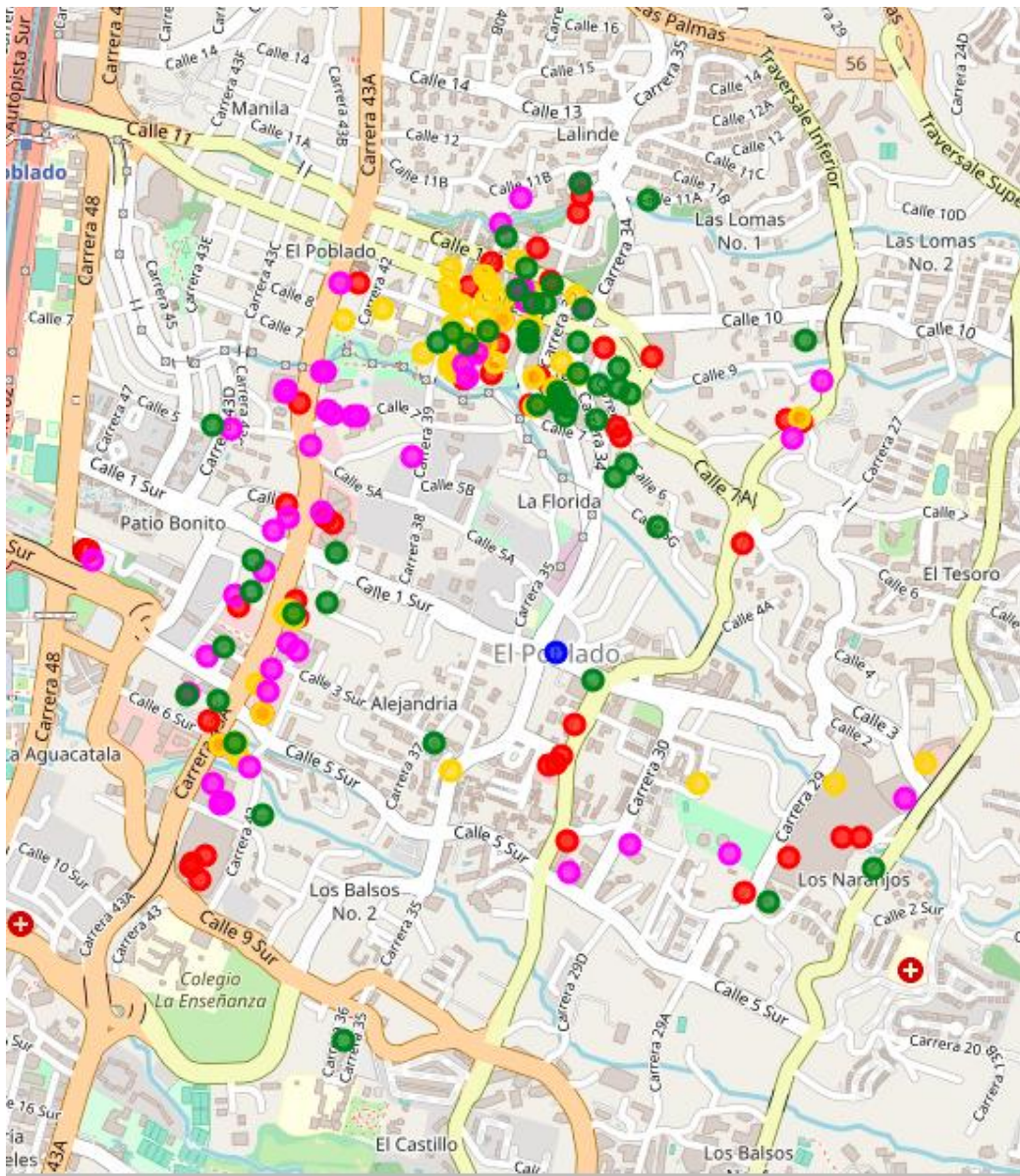
	Comuna	Score
13	Comuna 14 - El Poblado	53.05
10	Comuna 11 - Laureles-Estadio	51.25
9	Comuna 10 - La Candelaria	45.15
15	Comuna 16 - Belén	35.15
11	Comuna 12 - La América	33.10
14	Comuna 15 - Guayabal	27.00
7	Comuna 8 - Villa Hermosa	26.50
3	Comuna 4 - Aranjuez	22.55
8	Comuna 9 - Buenos Aires	21.10
12	Comuna 13 - San Javier	19.60
4	Comuna 5 - Castilla	18.90
6	Comuna 7 - Robledo	18.10
5	Comuna 6 - Doce de Octubre	14.75
1	Comuna 2 - Santa Cruz	9.40
2	Comuna 3 - Manrique	8.25
0	Comuna 1 - Popular	8.05

## 5 Observations.

Assigning a weight to each Comuna according to the amount of venues that are of interest, two Comunas gave a very high score, El Poblado with 53 points and Laureles-Estadio with 51 points, looking at the distribution of the venues of each Comuna, El Poblado have the venues concentrated in one area, this would be very helpful for people traffic and for the business to get exposed, for this reason the best ubication for Andrea venture is El Poblado and should have Laureles-Estadio on stand-by for future expansions.

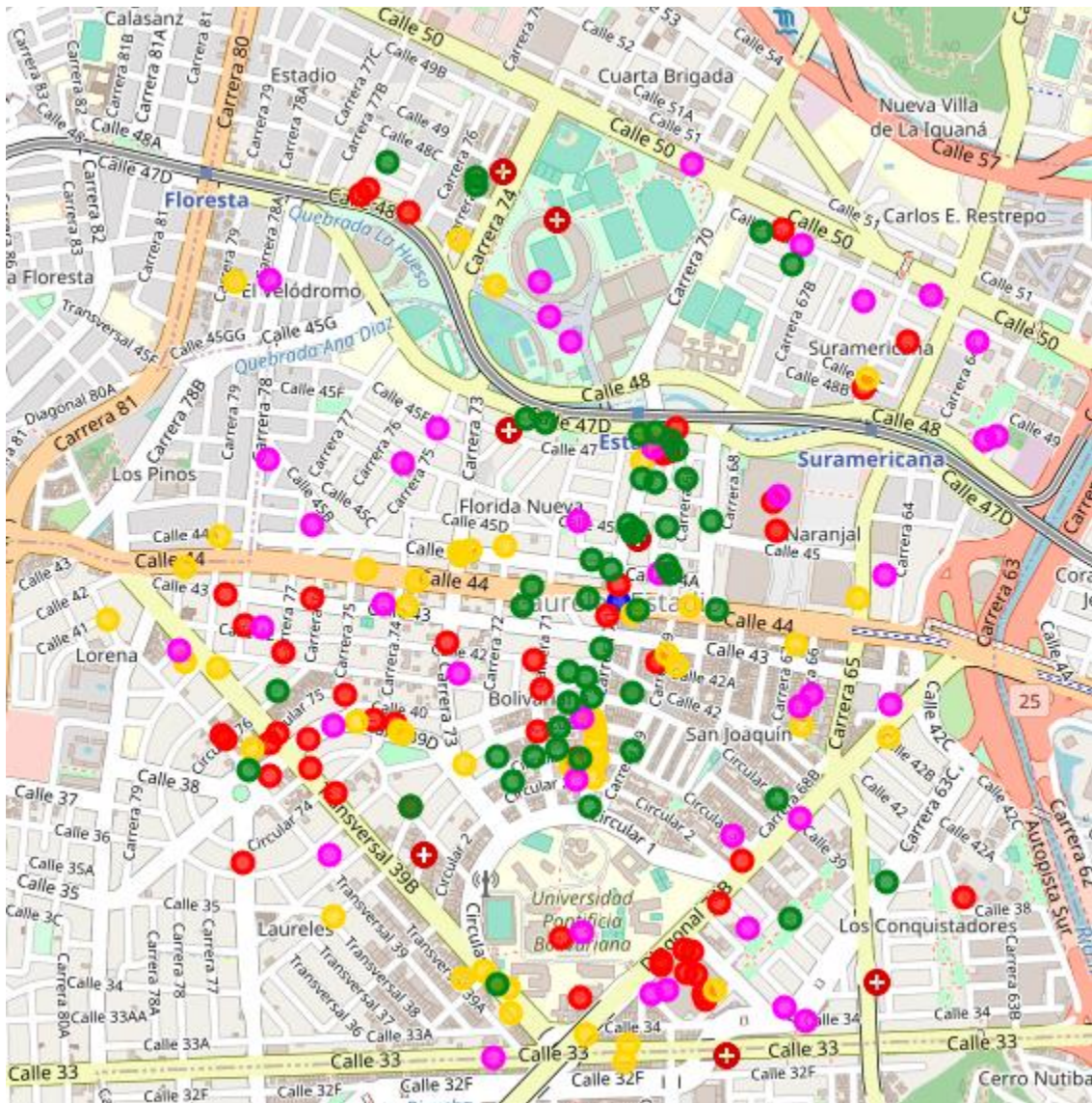


Poblado venues distribution.





Laureles-Estadio venues distributions.



## 6 Conclusion.

In this study, we analyzed the options for locating a Chicharron restaurant in the city of Medellín, Colombia using strategic venues that can help get better results in the short run. Using a weighted score model, we realized that El Poblado got the best score, we also notice that in this Comuna the venues are very close to each other which will improve the traffic around the Chicharron venue. This simple study can help new ventures get better results in the short run just by getting the best locations.