COURSERA CAPSTONE – THE BATTLE OF THE NEIGHBORHOOD

OPENING OF A NEW PERUVIAN RESTAURANT IN BARRANQUILLA

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DISCUSSION POINTS

- Introduction (Problem and Interest)
- Data acquisition and cleaning (Data sources and Data cleaning)
- Exploratory Data Analysis
- Recommendations
- Conclusion

INTRODUCTION

BACKGROUND

According to the economic projections with respect to Peruvian restaurants in Colombia, it is expected that by 2019 they will exceed sales to 62 million dollars. Up to 2018, 81 Peruvian food points were registered in the country, 33 are in Bogotá and 29 in Medellin, the rest are in other regions.

PROBLEM

A FRANCHISE OF PERUVIAN RESTAURANTS

has decided to start a new plaza in the city of Barranquilla, among its reasons is: geographically strategic position with opening to the Magdalena River and for being one of the epicenters in terms of business in Colombia

THE CENTRAL OBJECTIVE OF THIS RESEARCH STUDY

is to analyze and select the best locations in the city of Barranquilla, Colombia so that the franchise opens to its new location

INTEREST

Any investor who is thinking of opening a new restaurant of Peruvian food in the city and also for Big Data students who want to expand their knowledge and be able to carry out similar projects.

DATA ACQUISITION AND CLEANING

DATA SOURCES

- List / Information on the Barranquilla sectors with their Geodata (latitude and longitude).
- List / Information on the main roads in Barranquilla with geographic data.

DATA CLEANING

THE DATA THAT WE WILL USE FOR THIS ANALYSIS IS A COMBINATION OF A CSV FILE

that has been prepared for the purposes of the analysis of multiple sources (Barrios_coord.csv) and the location / location information on Foursquare.

THE FILE WILL BE READ DIRECTLY IN JUPITER'S NOTEBOOK

with the use of data science methodology and machine learning techniques such as grouping. The grouping of city sectors and mapping will be shown. An algorithm was used to determine the Nominatim geodata.

	Neighborhood	Latitude	Longitude
0	Altos De Riomar	11.015578	-74.820644
1	Miramar	11.003472	-74.835111
2	Andalucia	11.016125	-74.815162
3	Altos Del Limon	11.013992	-74.826282
4	El Golf	11.008695	-74.808828
5	Riomar	11.011865	-74.831650
6	Villa Country	11.006075	-74.804908
7	El Tabor	11.002278	-74.828940
8	Alto Prado	11.001832	-74.809796
9	Prado	11.001382	-74.798429
10	Villa Campestre	11.023403	-74.862230
11	Los Nogales	10.993977	-74.827701
12	Villa Del Mar	11.005024	-74.827649
13	Ciudad Jardin	10.994720	-74.818642
14	Boston	10.986946	-74.793942
15	Las Tres Aves Marias	11.021004	-74.808954
16	El Recreo	10.980112	-74.800932

EXPLORATORY DATA ANALYSIS

16 strategic neighborhoods were commercially taken in the city of Barranquilla and the latitudes and longitudes of their locations were manually searched with the help of Google Maps and with the data provided by the DANE

Note: The latter happened, because it was not possible to find in Wikipedia the list of neighborhoods in the city of Barranquilla

MAP OF BARRANQUILLA NEIGHBORHOODS USING FOLIUM

It can be seen that the 5 main places of Miramar 3 of them are restaurants, that is, it can be concluded that it is an area with a high flow of commercial premises in the category of restaurants

	neighborhood	name	categories	lat	lng
0	Miramar	Bodytech Miramar	Gym / Fitness Center	11.003574	-74.835128
1	Miramar	Arabe Internacional	Falafel Restaurant	11.006065	-74.826594
2	Miramar	Zahle	Middle Eastern Restaurant	11.005083	-74.826653
3	Miramar	Hamburguesas El Corral	Burger Joint	11.005160	-74.827853
4	Miramar	Popsy	Ice Cream Shop	11.004006	-74.827308

It can be seen that the 5 main places of Altos del Limón 2 are in the Shopping Mall category, that is, it is a highly commercial area whose restaurant presence is minimal since only 1 of them is in this category

	neighborhood	name	categories	lat	lng
0	Altos del limón	Parque Bulevar Buenavista	Park	11.015699	-74.826604
1	Altos del limón	Centro Comercial Buenavista II	Shopping Mall	11.014037	-74.828110
2	Altos del limón	Salvator's Pizza	Pizza Place	11.014151	-74.826245
3	Altos del limón	Centro Comercial Buenavista I	Shopping Mall	11.013445	-74.827561
4	Altos del limón	Crepes & Waffles	French Restaurant	11.013738	-74.827594

According to the 5 main places in this sector you can see that their categories are quite varied, except for the category of restaurants that are 2, and in addition they offer the same type of cuisine: Japanese.

	neighborhood	name	categories	lat	lng
0	Villa Country	Country Club	Golf Course	11.004848	-74.804546
1	Villa Country	Tienda MONO	Clothing Store	11.003164	-74.805265
2	Villa Country	Noa Sushi & Robata	Japanese Restaurant	11.003397	-74.808010
3	Villa Country	SUSHI MAS Comida Japonesa	Sushi Restaurant	11.004008	-74.803655
4	Villa Country	Falabella	Department Store	11.004020	-74.805983

According to the 5 main places of Alto Prado it can be seen that it is a high-flow zone of restaurants where 4 places belong to this category, although it can be concluded that the restaurants offer a variety of foreign and local foods.

	neighborhood	name	categories	lat	lng
0	Alto Prado	Varadero Pescados & Mariscos	Caribbean Restaurant	11.002769	-74.810050
1	Alto Prado	Noa Sushi & Robata	Japanese Restaurant	11.003397	-74.808010
2	Alto Prado	Discovery Sushi Bar	Sushi Restaurant	10.999717	-74.809828
3	Alto Prado	Crepes & Waffles	French Restaurant	11.001006	-74.808344
4	Alto Prado	Fior Di Pizza	Pizza Place	11.001325	-74.807735

Villa Campestre according to the 5 main places is a sector of the city where there is 2 Shopping Mall, which means that it is a highly commercial and also 3 places belong to the category of restaurants where 2 of them are pizzeria.

	neighborhood	name	categories	lat	lng
0	Villa Campestre	Centro Comercial Villa Campestre Plaza	Shopping Mall	11.022525	-74.862863
1	Villa Campestre	Centro Comercial Le Champ	Shopping Mall	11.018798	-74.864641
2	Villa Campestre	Valestrino Pastas y Pizzas	Pizza Place	11.021320	-74.868225
3	Villa Campestre	La panatta	Pizza Place	11.016883	-74.849814
4	Villa Campestre	Burger King	Fast Food Restaurant	11.018184	-74.864852

It can be concluded that Ciudad Jardín according to the 5 main places is a sector where there is a variety of restaurants among them are offered: pizzeria, bakery and arepas.

	neighborhood	name	categories	lat	lng
0	Ciudad Jardin	Yona's Burger House	Burger Joint	10.996785	-74.816428
1	Ciudad Jardin	Pietrini's La Pizza	Pizza Place	10.997197	-74.821125
2	Ciudad Jardin	Panadería Zapatoca	Bakery	10.996531	-74.815711
3	Ciudad Jardin	Narcobollo	Arepa Restaurant	10.999031	-74.821824
4	Ciudad Jardin	Salvator's Pizza	Pizza Place	11.002856	-74.818450

	neighborhood	Peruvian Restaurant	Cluster Labels	Latitude	Longitude
1	Altos del limón	0.000000	0	NaN	NaN
3	Miramar	0.000000	0	11.003472	-74.835111
4	Villa Campestre	0.000000	0	11.023403	-74.862230
5	Villa Country	0.021739	1	11.006075	-74.804908
2	Ciudad Jardin	0.022727	2	10.994720	-74.818642
0	Alto Prado	0.022222	3	11.001832	-74.809796

CLASSIFICATION AND GROUPING OF PERUVIAN RESTAURANTS BY NEIGHBORHOOD
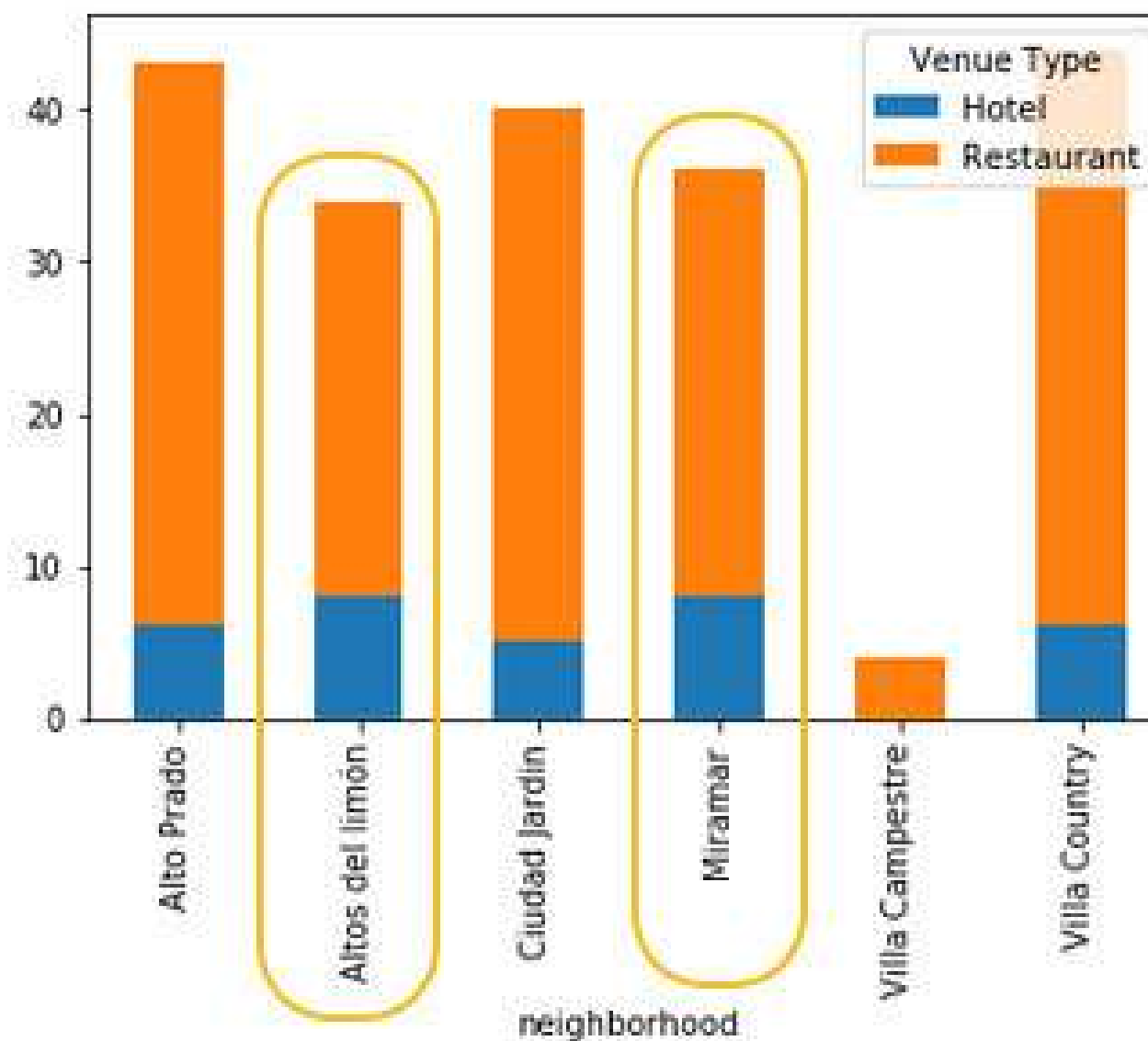
RECOMMENDATIONS

THE 98TH STREET BETWEEN 53-56 RACES IS CURRENTLY HAVING A LARGE POPULATION GROWTH (MORE AND MORE BUILDINGS ARE BEING MADE IN THE SECTOR), ALONG WITH IT CAN BE SAID THAT THIS SECTOR HAS A GREAT COMMERCIAL INFLUENCE IN THE CITY
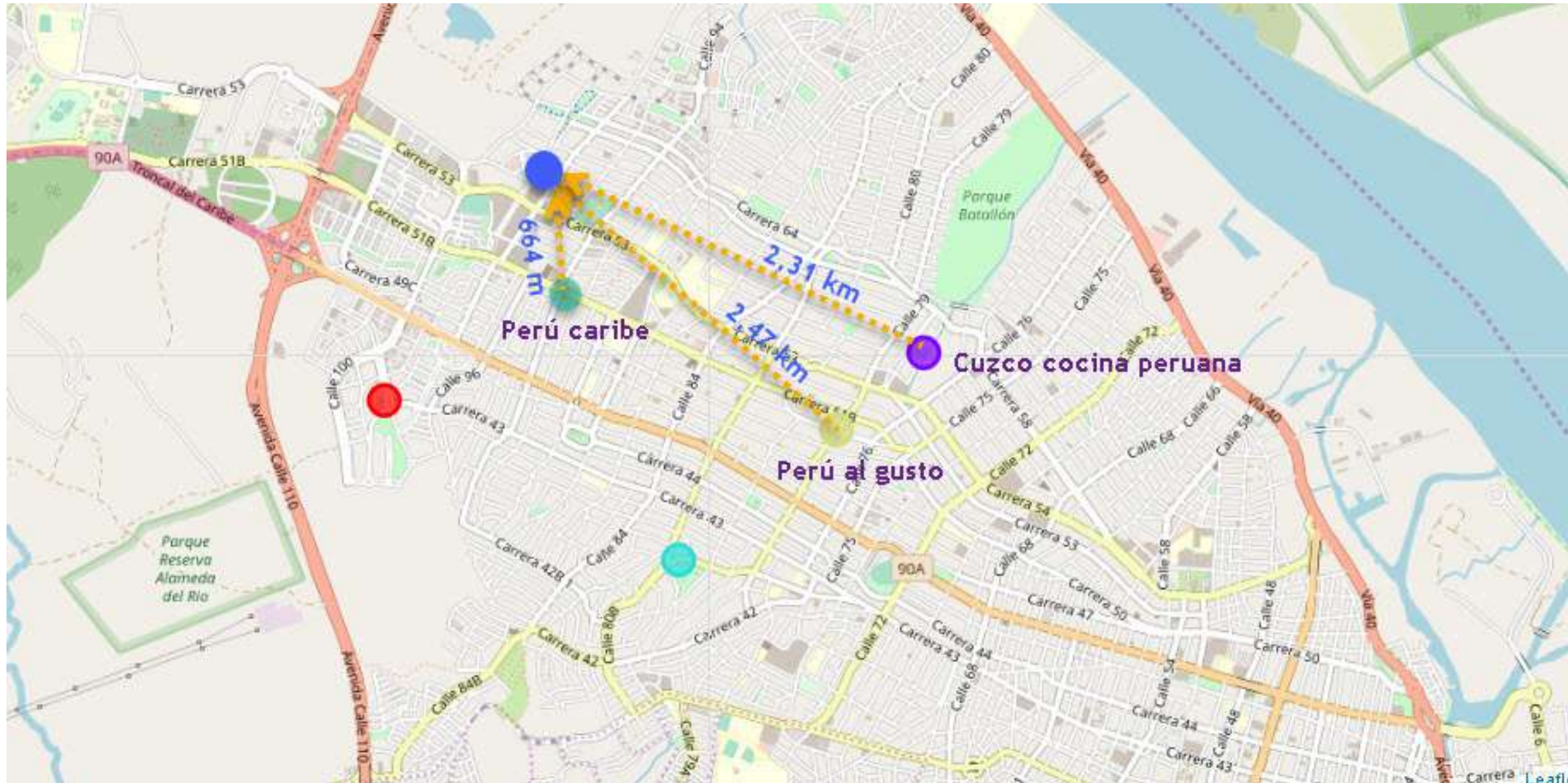
neighborhood	Venue Type	count
Alto Prado	Hotel	6
	Restaurant	37
Altos del limón	Hotel	8
	Restaurant	26
Ciudad Jardin	Hotel	5
	Restaurant	35
Miramar	Hotel	8
	Restaurant	28
Villa Campestre	Restaurant	4
Villa Country	Hotel	6
	Restaurant	38

Hotels and restaurants by sector

Hotels and restaurants grouped by sectors of the city

ALTOS DEL LIMÓN IS WHERE MAJOR HOTELS ARE PRESENT, AS IS MIRAMAR, BUT WHICH HAS FEW RESTAURANTS COMPARED TO OTHER SECTORS. THIS ALSO REPRESENTS A GREAT OPPORTUNITY SINCE MANY TOURISTS WILL HAVE MORE ACCESS TO FOREIGN FOOD, ESPECIALLY PERUVIAN FOOD.

CONCLUSION

- Relatively volume high of activities for tourists and locals
- It is a business center
- It is close to other high rental neighborhoods
- The proportion of hotels to restaurants is not too high
- It is located in main roads, this makes it easy to access.

GET IN TOUCH WITH ME

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