



PREDICTING BEST INVESESTMENT IN BUENOS AIRES

Coursera - IBM - Capstone Project

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Buenos Aires

Buenos Aires (officially known as Ciudad Autónoma de Buenos Aires), is the capital and most populated city of the República Argentina.

It has:

48 neighborhoods

3,075,646 inhabitants.



The problem

Investing in a gastronomic store in a big city can lead to problems of lack of customers due to competitiveness.

We try then to determine:

1. What kind of store is convenient, in terms of opportunity of clients
2. Where is the optimum place



The data

For the analysis we will use the following dataset:


1. Wikipedia with the different neighborhoods and habitants:
https://es.wikipedia.org/wiki/Anexo:Barrios_de_la_ciudad_de_Buenos_Aires
2. Buenos Aires's location dataset (government website):
<https://data.buenosaires.gob.ar/dataset/barrios>
3. Foursquare API to obtain the information for each neighborhood



The data

	Barrio	Superficie (km2)	Habitantes	Densidad de habitantes	Comuna	latitude	longitude
0	Agronomía	2.1	34580.0	8645.0	Comuna 15	-34.600000	-58.483330
1	Almagro	4.1	139262.0	33960.0	Comuna 5	-34.600000	-58.416670
2	Balvanera	4.4	152198.0	34950.0	Comuna 3	-34.610180	-58.406540
3	Barracas	7.6	77474.0	10194.0	Comuna 4	-34.650000	-58.366670
4	Belgrano	6.8	138942.0	20433.0	Comuna 13	-34.566670	-58.466670

Getting Venues from Foursquare



Neighborhood		La Boca		Palermo	
Núñez	77	Vélez Sarsfield	15	Villa Soldati	4
San Nicolás	71	Villa Urquiza	13	Liniers	4
Mataderos	57	Balvanera	13	Montserrat	4
Almagro	57	Parque Avellaneda	12	Villa Lugano	4
Flores	57	Villa Santa Rita	12	Villa Riachuelo	4
Nueva Pompeya	51	Parque Patricios	11	Boedo	3
Recoleta	48	La Paternal	10	Monte Castro	2
Puerto Madero	43	Versalles	10	Barracas	1
Saavedra	36	Villa Luro	10		
Belgrano	35	Parque Chas	9		
Constitución	35	Caballito	9		
Colegiales	35	Villa Crespo	9		
Villa Devoto	35	San Cristóbal	9		
Coghlan	35	Agronomía	7		
San Telmo	29	Villa del Parque	7		
Chacarita	21	Villa Gral. Mitre	6		
Floresta	20	Villa Real	6		
Villa Pueyrredón	18	Retiro	6		
Parque Chacabuco	18	Villa Ortúzar	6		

Top 10 most common Venues for Neighborhood



	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Agronomía	Grocery Store	Design Studio	Photography Studio	Snack Place	Athletics & Sports	Coffee Shop	Bus Stop	Falafel Restaurant	Food Court	Food & Drink Shop
1	Almagro	Café	Theater	Argentinian Restaurant	Bakery	Gym / Fitness Center	Empanada Restaurant	Martial Arts Dojo	Coffee Shop	Pizza Place	Public Art
2	Balvanera	Café	Hotel	Fast Food Restaurant	Bus Station	Bus Stop	Pharmacy	Restaurant	Electronics Store	Gym	Peruvian Restaurant
3	Barracas	Music Venue	Ice Cream Shop	Event Space	Food Stand	Food Service	Food Court	Food & Drink Shop	Fish Market	Fast Food Restaurant	Farmers Market
4	Belgrano	Coffee Shop	Pharmacy	Deli / Bodega	Café	Supermarket	Plaza	Bookstore	Ice Cream Shop	Argentinian Restaurant	Pastry Shop
5	Boedo	Performing Arts Venue	Pier	Lounge	Women's Store	Food Service	Food Court	Food & Drink Shop	Fish Market	Fast Food Restaurant	Farmers Market

Top Venues in Buenos Aires

	Total
Café	167.0
Pizza Place	146.0
Ice Cream Shop	131.0
Argentinian Restaurant	124.0
Coffee Shop	117.0
Bus Stop	102.0
Pharmacy	82.0
Plaza	72.0
Restaurant	67.0
Hotel	64.0



Neighborhood with largest number of inhabitants but least store density

Cafe per person		Habitantes
Barrio		
Palermo	NaN	252312.0
Caballito	NaN	183396.0
Villa Lugano	NaN	114253.0
Barracas	NaN	77474.0
Villa del Parque	NaN	58573.0

Pizza Place per person		Habitantes
Barrio		
Palermo	NaN	252312.0
Balvanera	NaN	152198.0
Villa Lugano	NaN	114253.0
Barracas	NaN	77474.0
Villa del Parque	NaN	58573.0

Ice Cream Shop per person		Habitantes
Barrio		
Palermo	NaN	252312.0
Recoleta	NaN	188780.0
Balvanera	NaN	152198.0
Almagro	NaN	139262.0
Villa Crespo	NaN	89859.0

Argentinian Restaurant per person		Habitantes
Barrio		
Palermo	NaN	252312.0
Balvanera	NaN	152198.0
Villa Lugano	NaN	114253.0
Villa Crespo	NaN	89859.0
Barracas	NaN	77474.0

Coffee Shop per person		Habitantes
Barrio		
Palermo	NaN	252312.0
Caballito	NaN	183396.0
Balvanera	NaN	152198.0
Villa Lugano	NaN	114253.0
Villa Crespo	NaN	89859.0



Conclusions

The optimal investment is to put a Cafe in Palermo. Because the Cafe is the best way to attract customers but in Palermo, according to information from Foursquare, it is where it is most likely due to its high number of inhabitants but few Cafes in that neighborhood.