



# ITALIAN RESTAURANT LOCATION IN BCN

Capstone project

# OPEN AN ITALIAN RESTAURANT IN BARCELONA

- **Business Problem**

- The objective of this project is to recommend to an entrepreneur the best location for an ITALIAN restaurant in BARCELONA (SPAIN) given 3 options of localization. The recommendation will be given by using Data analysis, and machine learning algorithms like clustering

- **Target Audience**

- The entrepreneur who wants to find the location to open a reliable Italian restaurant

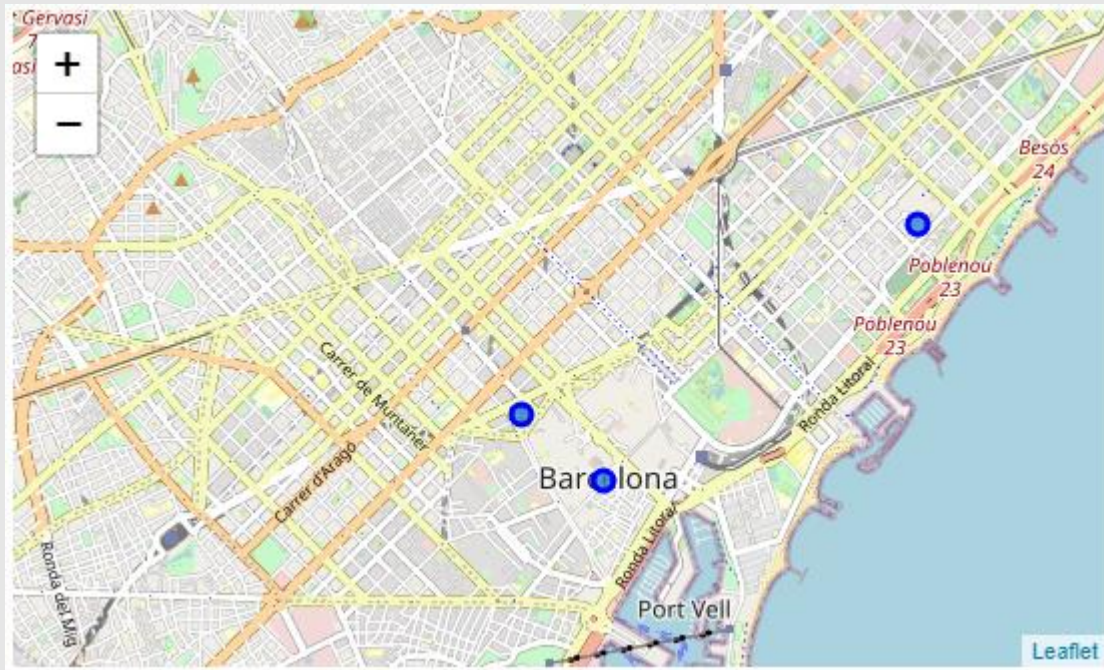
- **Data**

- To solve the problem, we need the following data: List of 3 suggested locations List of nearby italian restaurants given the 3 locations List of Barcelona popular avenues close to the locations

	Restaurant	Latitude	Longitude	Area
0	A	41.382778	2.176944	Barri Gotic
1	B	41.387027	2.170024	Barri de Gràcia
2	C	41.399167	2.203889	Poblenou

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- **Extracting the data**[1](#)
- Using foursquare API: Retrieve the restaurants by each location Retrieve Barcelona's most popular avenues Retrieve Barcelona's Restaurant locations and cluster them by type



# OPEN AN ITALIAN RESTAURANT IN BARCELONA

- Analyzing the data

----Poblenou----

	venue	freq
0	Spanish Restaurant	0.07
1	Mediterranean Restaurant	0.07
2	Italian Restaurant	0.07
3	Ice Cream Shop	0.07
4	Gastropub	0.07
5	Wine Bar	0.03
6	Cultural Center	0.03
7	Road	0.03
8	Plaza	0.03
9	Park	0.03
10	Kebab Restaurant	0.03
11	Hotel	0.03
12	Hostel	0.03
13	Fruit & Vegetable Store	0.03
14	Empanada Restaurant	0.03

----Barri de Gràcia----

	venue	freq
0	Hotel	0.27
1	Bookstore	0.10
2	Ice Cream Shop	0.07
3	Plaza	0.07
4	Vegetarian / Vegan Restaurant	0.03
5	Clothing Store	0.03
6	Fountain	0.03
7	Art Gallery	0.03
8	Electronics Store	0.03
9	Donut Shop	0.03
10	Italian Restaurant	0.03
11	Coffee Shop	0.03
12	Mediterranean Restaurant	0.03
13	Gourmet Shop	0.03
14	Burger Joint	0.03

----Barri Gotic----

	venue	freq
0	Plaza	0.17
1	Ice Cream Shop	0.10
2	Tapas Restaurant	0.07
3	Dessert Shop	0.07
4	Wine Bar	0.03
5	Cocktail Bar	0.03
6	Spanish Restaurant	0.03
7	Pizza Place	0.03
8	Organic Grocery	0.03
9	Italian Restaurant	0.03
10	Hotel	0.03
11	Hot Dog Joint	0.03
12	Greek Restaurant	0.03
13	Coffee Shop	0.03
14	Fabric Shop	0.03

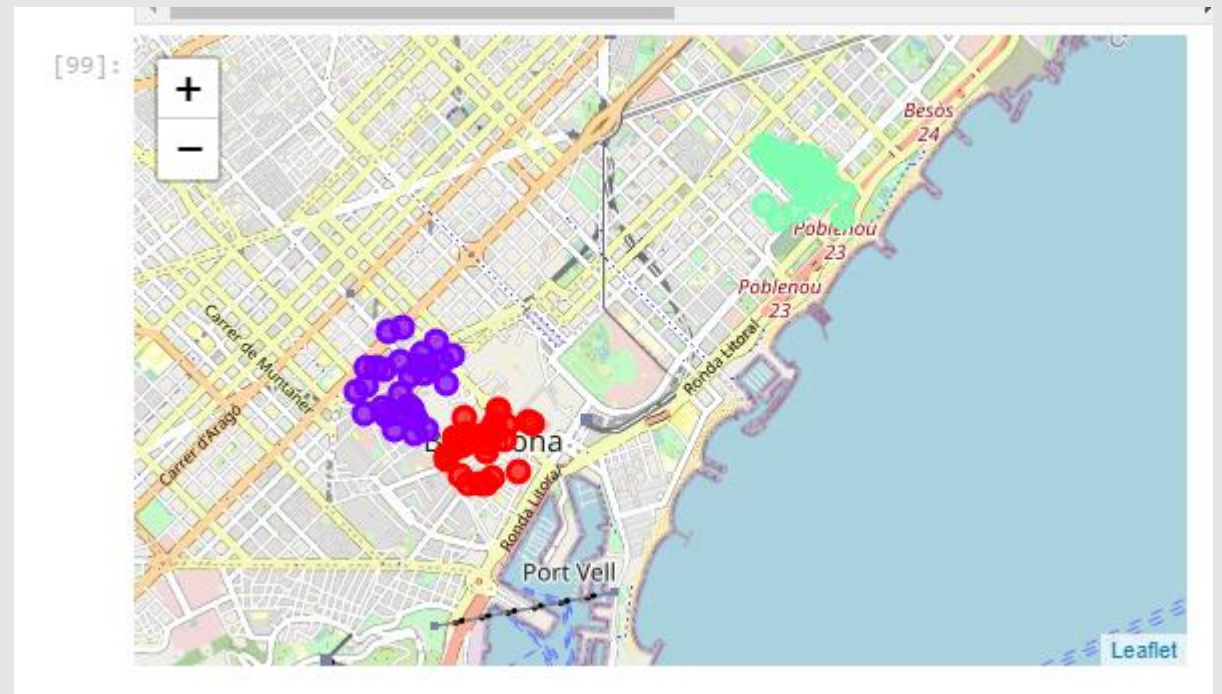


# OPEN AN ITALIAN RESTAURANT IN BARCELONA

- Analyzing the data

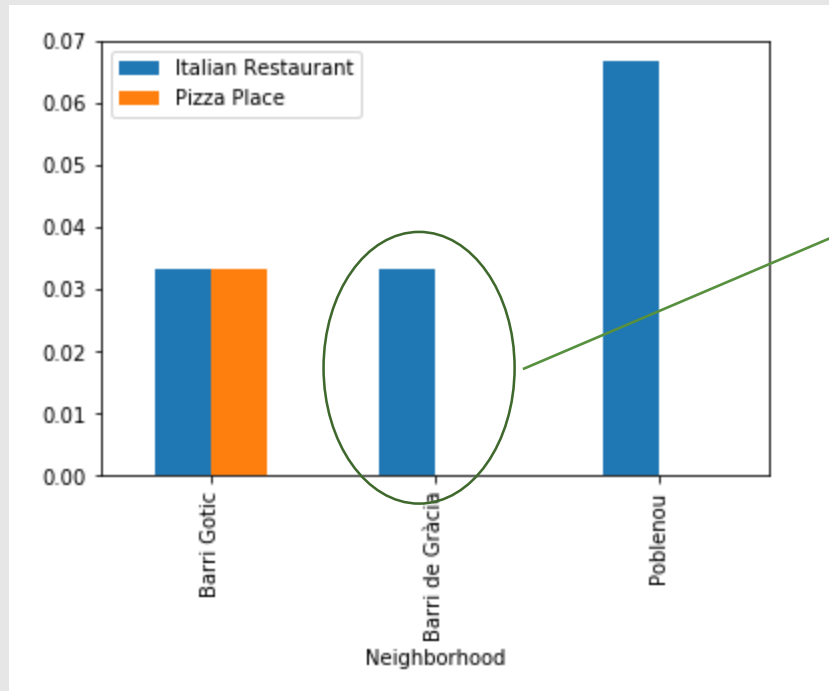
	Neighborhood	Wine Bar	Art Gallery	Asian Restaurant	Baby Store	Bagel Shop	Bakery	Bar	Beer Bar	Beer Store	...	Pizza Place	Plaza	Record Shop	Road	Sandwich Place	Spanish Restaurant	Sporting Goods Shop	Supermarket	Tapas Restaurant	Vegetarian / Vegan Restaurant
0	Barri Gotic	0.033333	0.000000	0.000000	0.033333	0.000000	0.000000	0.000000	0.033333	0.000000	...	0.033333	0.166667	0.000000	0.000000	0.000000	0.033333	0.000000	0.000000	0.066667	0.000000
1	Barri de Gràcia	0.000000	0.033333	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	...	0.000000	0.066667	0.033333	0.000000	0.033333	0.000000	0.033333	0.033333	0.000000	0.033333
2	Poblenou	0.033333	0.000000	0.033333	0.000000	0.033333	0.033333	0.033333	0.033333	0.033333	...	0.000000	0.033333	0.000000	0.033333	0.000000	0.066667	0.000000	0.000000	0.000000	0.033333

It has been evaluated 50 different restaurant types concentration per Neighborhood and represented in clusters on the Map.



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- Conclusion



“Barri de Gràcia” is the best location due to the lesser concentration of Italian food places including pizza.



THANK YOU!