# Capstone Project The battle of Neighborhoods

Find the best place to open a restaurant in Milan

### Introduction

- Milan continuously built-up urban area is the fourth largest in the EU with 5.27 million inhabitants
- Great competition to open a restaurant
- ► Help a possible stakeholder to understand better the town and the market with useful insights



#### **Data Section**

Wikipedia page about Milan:

https://it.wikipedia.org/wiki/Municipi\_di\_Milano

List of neighborhoods:

https://github.com/NicMil/Coursera\_Capstone/blob/master/Milano\_Municipi\_NIL.csv

Real Estate prices:

https://www.immobiliare.it/mercato-immobiliare/lombardia/milano/

https://www.mercato-immobiliare.info/lombardia/milano/milano.html

Neighborhoods coordinates:

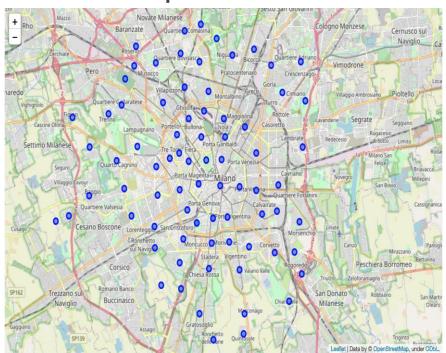
https://dati.comune.milano.it/

## **Data Section**

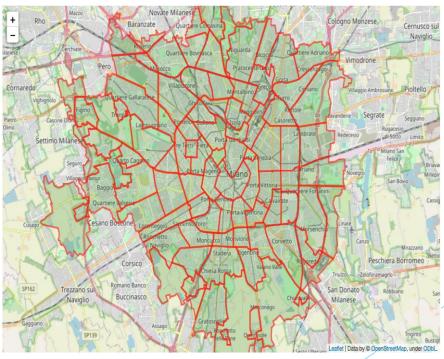
	ld	Neighborhood	Borough	Population(31/12/2018) Borough	Average Price(€/sm)	Latitude	Longitude
0	48	Ronchetto Sul Naviglio - Q.Re Lodovico Il Moro	6	151 291	€ 2.563 /m²	45.438460	9.137260
1	64	Trenno	8	188 367	€ 2.350 /m²	45.492822	9.101675
2	67	Portello	8	188 367	€ 4.300 /m²	45.484490	9.153947
3	81	Bovisasca	9	187 773	€ 2.000 /m²	45.517433	9.156731
4	84	Parco Nord	9	187 773	€ 6.800 /m²	45.523514	9.184235

## Methodology

#### Folium map

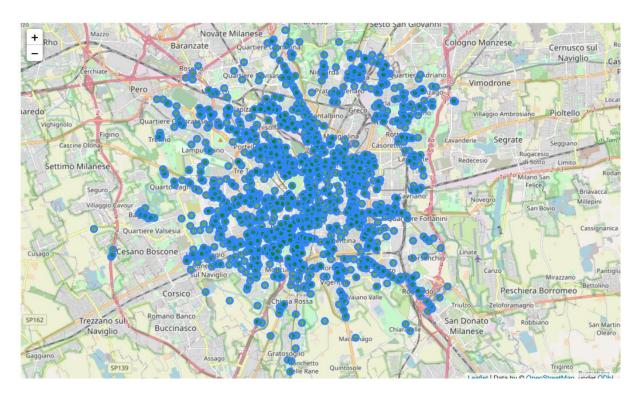


#### GeoJSON map



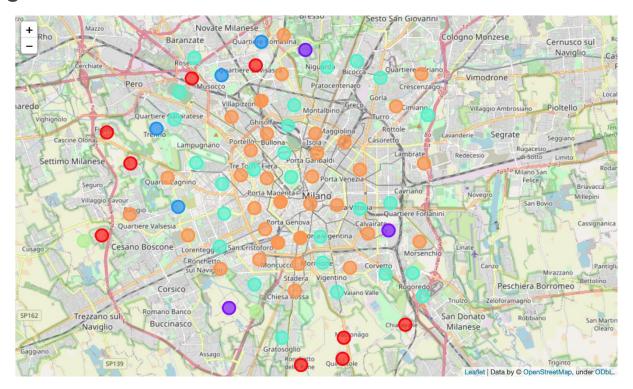
## Methodology

Milan restaurants:



## Methodology

#### Clustering:



#### Conclusion

- ▶ The most common venues in Milan are Italian Restaurant and Pizza Place
- Cluster 3 (blue) and 5 (green) don't have an Italian Restaurant
- From the geographical representation of the clusters, Comasina and Quarto Oggiaro, seems a good place open an Italian Restaurant. Also the land price isn't too high
- If our stakeholder thinks that there are too much Italian Restaurant, It can also be suggested that Assiano (cluster 5) could be a great area to open a Vegan\Vegetarian restaurant because of low profile and land price

## Next steps

- Use a different Venue API with more data. Unfortunately foursquare isn't pretty famous in Italy where most users prefer Google Maps or Facebook
- Find and use updated demographics data about Milan's Neighborhood
- Try a Neighborhood-Based Clustering

