

**New Restaurant opening  
after COVID-19 crisis  
Project Report**

# Introduction

In Spain we are currently in a very complex situation due to the COVID-19 crisis. Economic expectations are for a drop of more than 10% in GDP. This is causing many businesses have had to close throughout Spain.

In Madrid, the city where I live, one of the most affected sectors has been the restaurant sector. Many restaurants have had to close due to lack of demand.

Although now is not the time to make the investment, when this crisis passes, the demand in the restaurant sector will return to normal and therefore there will be more demand than supply and it will be a good time to open a restaurant.

The objective of this project is to analyze the current situation of the restaurant sector and to assist in the decision of the new opening of a restaurant in terms of:

- Cuisine.
- Menus.
- Target customer.
- Cost.
- Location.

The project will mainly try to answer what factors should be taken into account to open a new restaurant in Madrid.

**The target audience would be inversors who want to open a new restaurant in Madrid.**

# Data

## Data Description

Analysis of current Restaurants in Madrid

## Source of Data

- FourSquare API

Other local Restaurant specialized websites:

- <https://www.eltenedor.es/>
- <https://www.restaurantes.com/>
- <https://www.tripadvisor.es/>

Geo-Location coordinates

- Geocoder Python

Madrid demographic data:

- [https://es.wikipedia.org/wiki/Categor%C3%ADa:Barrios\\_de\\_Madrid](https://es.wikipedia.org/wiki/Categor%C3%ADa:Barrios_de_Madrid)

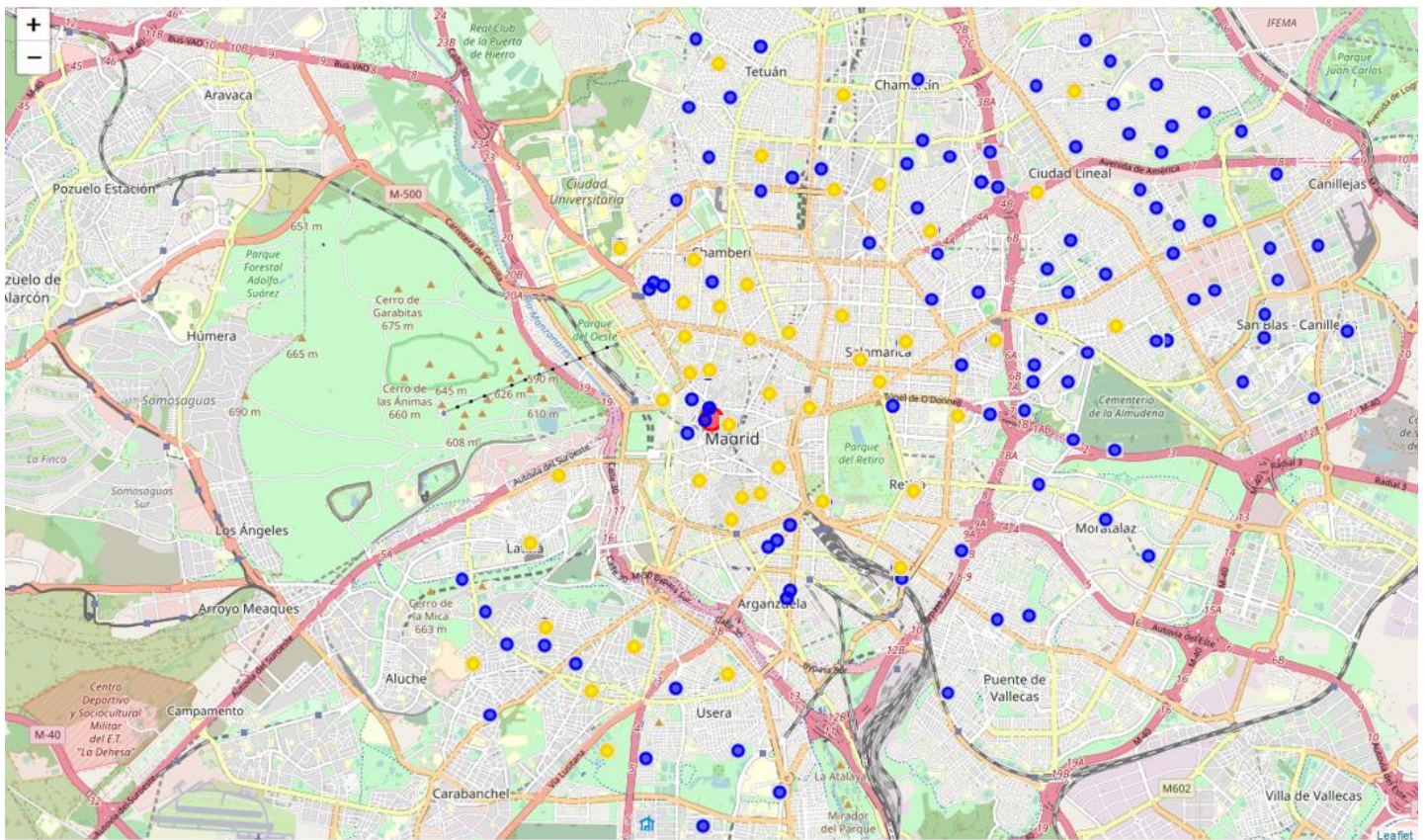
## Data Collection and analysis

1. From the local websites get URL, name and address of the restaurant. Allocate this info into a csv file that will be used later in the algorithm. The demographic (neighborhoods) data will be extracted from *wikipedia*.
2. Get latitude and longitude values from all locations and neighborhoods.
3. From FourSquare API get venues information and trends.
4. Segregate the information based on:
  - Cuisine
  - Location
  - Price
  - Avg. population per restaurant
5. Decide the best location to open the restaurant. (Target)

# Results

From the clustering analysis we can conclude:

- In Madrid Center, most of the restaurants are International Cuisine (Yellow)
- In the suburbs, most of the restaurants are Local Cuisine (Blue)



## **Conclusion**

Depending on the area its better to choose either open an international or local cuisine restaurant:

- City Center: Open a Local Cuisine Restaurant
- Suburbs: Open an International Cuisine Restaurant