The battle of Neighborhoods

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INTRODUCTION

BUENOS AIRES, ARGENTINA

- Buenos Aires is the financial, industrial, and commercial hub of Argentina.
- The economy in the city proper alone, measured by Gross Geographic Product (adjusted for purchasing power), totaled US $ 84.7 billion (US$34,200 per capita) in 2011 and amounts to nearly a quarter of Argentina's as a whole.
- We would like to open an **Italian restaurant** in Buenos Aires.

INTRODUCTION

BUENOS AIRES, ARGENTINA

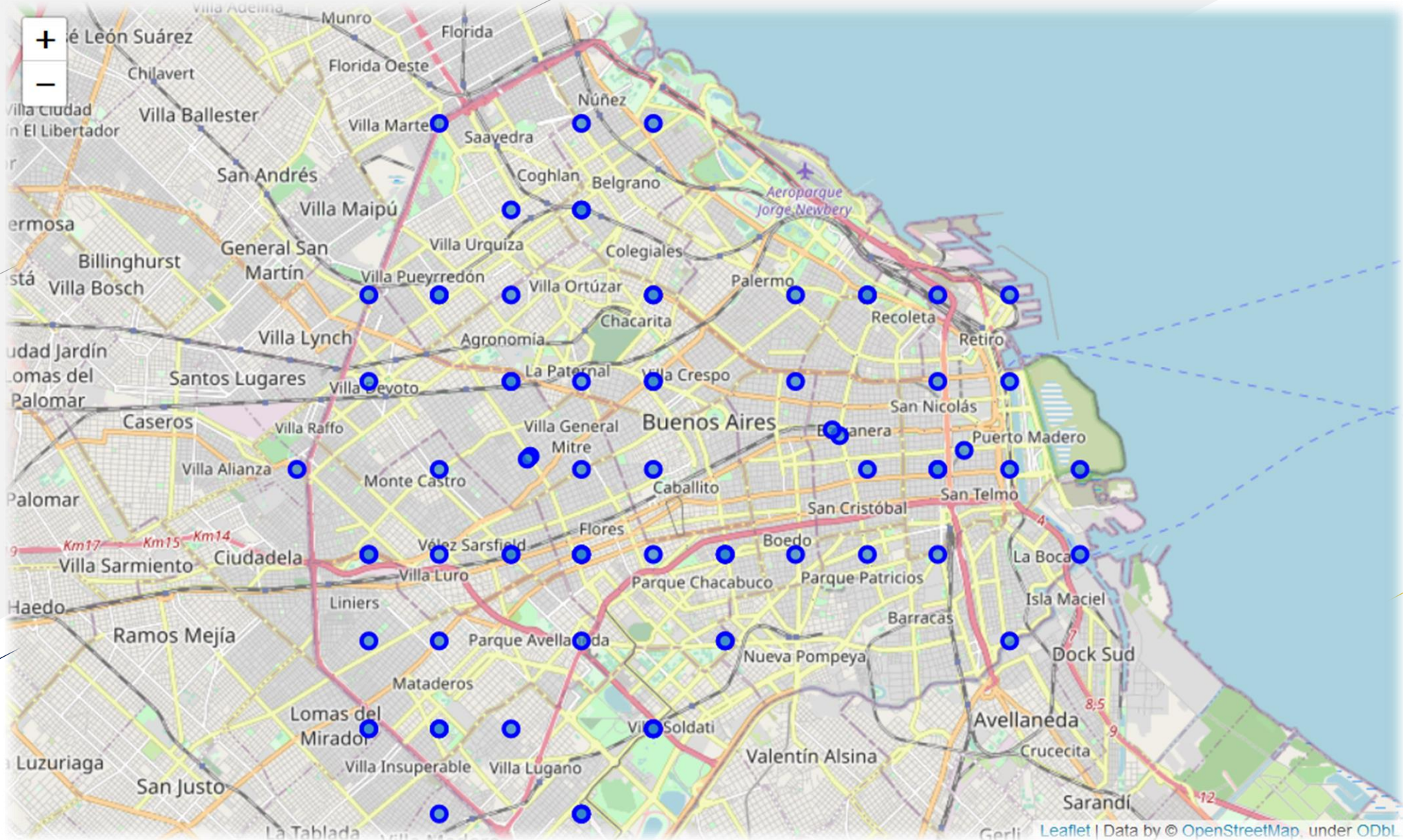
Target Audience:

- A business entrepreneur that wants open a new Italian restaurant in Buenos Aires.
- Business Analyst or Data Scientists, who wish to analyze the neighborhoods of Buenos Aires using python, Jupiter notebook and some machine learning techniques.
- Someone curious about data that want to have an idea, how beneficial it is to open a restaurant and what are the pros and cons of this business.

DATA

BUENOS AIRES, ARGENTINA

- First, we will find the latitude & longitude of Buenos Aires city center, using **Nominatim**.
- We will scrap the Neighborhoods of Buenos Aires from a webpage to create a dataframe. To do so, we will use **BeautifulSoup**.
- Later, we will see the result in a map, shown in the next slide. To do so, we will use **Folium**.


Munro
Florida
Florida Oeste
Chilavert
Villa Ballester
Villa Martelli
Saavedra
Núñez
San Andrés
Coghlan
Belgrano
Villa Maipú
Aeroparque Jorge Newbery
Villa Urquiza
Colegiales
General San Martín
Billinghurst
Villa Bosch
Villa Pueyrredón
Villa Ortúzar
Palermo
Recoleta
Retiro
Chacarita
Villa Lynch
Agronomía
Santos Lugares
La Paternal
Villa Crespo
Villa Devoto
San Nicolás
Caseros
Villa Raffo
Villa General Mitre
Buenos Aires
Puerto Madero
Villa Alianza
Monte Castro
Caballito
San Telmo
San Cristóbal
Km17
Km15
Km14
Flores
Boedo
Villa Sarmiento
Ciudadela
Vélez Sarsfield
La Boca
Villa Luro
Parque Chacabuco
Parque Patricios
Liniers
Isla Maciel
Barracas
Ramos Mejía
Parque Avellaneda
Nueva Pompeya
Dock Sud
Mataderos
Lomas del Mirador
Avellaneda
Villa Soldati
Crucecita
Luzuriaga
Villa Insuperable
Villa Lugano
Valentín Alsina
San Justo
Sarandí
La Tablada
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DATA

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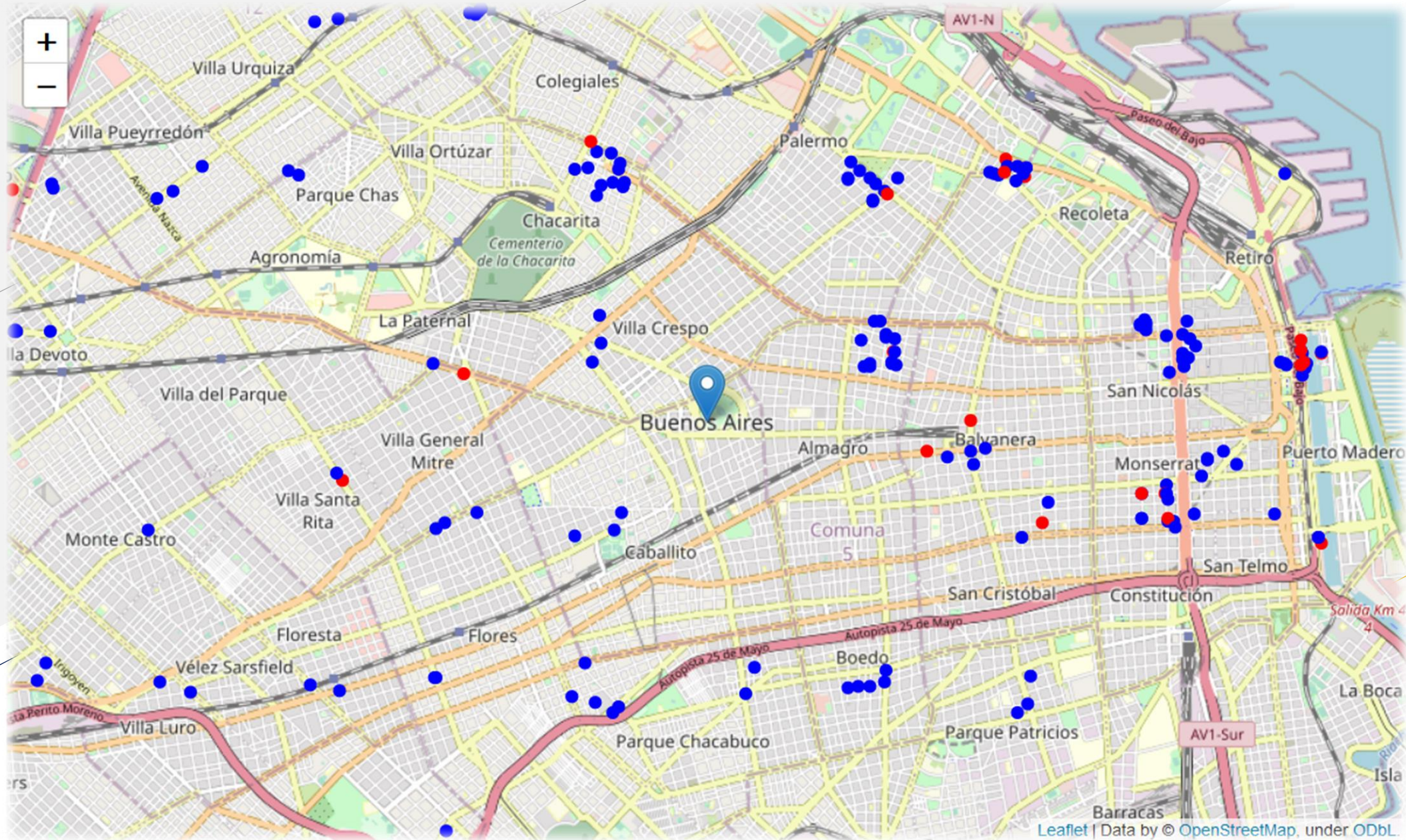
- Now that we know where the neighborhoods are located, we will use **Foursquare API** to get info on restaurants in each of them.
- The results are:
  - Total number of restaurants: 208.
  - Total number of Italian restaurants: 24.
  - Percentage of Italian restaurants: 11.54%.
  - Average number of restaurants in neighborhood: 2.43 .

DATA

BUENOS AIRES, ARGENTINA

- We can see that 11.54% of restaurants are Italian. Let's see the result in a map! The red circles will represent **Italian restaurants** and the blue ones are **other types of restaurants**.


Villa Urquiza
Colegiales
Villa Pueyrredón
Villa Ortúzar
Palermo
Parque Chas
Chacarita
Cementerio de la Chacarita
Recoleta
Agronomía
Retiro
La Paternal
Villa Crespo
Villa del Parque
San Nicolás
Buenos Aires
Villa General Mitre
Almagro
Balvanera
Monserrat
Puerto Madero
Villa Santa Rita
Monte Castro
Comuna 5
Caballito
San Telmo
San Cristóbal
Constitución
Floresta
Flores
Autopista 25 de Mayo
Vélez Sarsfield
Boedo
La Boca
Villa Luro
Parque Chacabuco
Parque Patricios
Barracas
Isla
AV1-N
AV1-Sur
Paseo del Bajo
Leaflet | Data by © OpenStreetMap, under ODbL.

METHODOLOGY

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- For this report I used a few different maps that could help a new investor to decide the best neighborhood.
- In order to do that I've used the above information combined with maps to visually display the neighborhoods where the Italian restaurants are situated.

ANALYSIS

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- We will see in the next slide a map showing the “Italian Restaurant density” in Buenos Aires city.
- The red areas represent high levels of said density, and the light blue are the lowest levels of that density.


José León Suárez
MUNRO
Villa Ballester
Villa Maipú
General San Martín
Billinghurst
Villa Bosch
Villa Lynch
Sáenz Peña
Caseros
Palomar
Ciudadela
RAMOS MEJÍA
Haedo
Lomas del Mirador
SAN JUSTO
Luzuriaga
BUENOS AIRES
RETIRO
PARQUE AVELLANEDA
NUEVA POMPEYA
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RESULTS and DISCUSION

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In this project I tried to set up a realistic data-analysis scenario using several different ways such as: web scraping, some powerful python libraries eg. Folium, Foursquare API, etc.

RESULTS and DISCUSION

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Let’s see what we have found:

- There are certain areas with high 'Italian Restaurant density', such as Puerto Madero or Recoleta.
- There are other areas such as Parque Patricios or Caballito where said density is medium.
- Lastly, there are areas like Retiro or Villa del Parque, where there are little to none Italian restaurants.

We would suggest the stakeholders to invest in a new Italian restaurant in the areas with low restaurant density.

CONCLUSION

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- Thanks to this project I've now got a small glimpse of how real life data-science projects look like.
- I've made use of some frequently used python libraries to scrap web-data, use Foursquare API to explore the neighborhoods of Buenos Aires and saw the results of it using Folium maps.