



**IBM COURSERA DATA SCIENCE CAPSTONE**

# **The Battle of The Neighborhoods**

In Search of the best location for an Italian restaurant in Brussels, Belgium

## 1. Business Case

- Our Client wants to open up an Italian Restaurant in Bruxelles
- He doesn't know how many Italian Restaurants there are in the city
- He wants to know which Neighbourhood would be suitable
- The Question is:

**What neighbourhood in Brussels has the best characteristics for our client to open up his Italian restaurant?**



**ITALIAN**  
— RESTAURANT —  
DESIGN LOGO

*Bruxelles*

**BELGIUM**



## 2. The Data

- Foursquare:
  - social networking service that allows users to discover and share information about businesses and attractions around them
- Github:
  - Collection of Zip Codes in Belgium provided by jief

<https://github.com/jief/zipcode-belgium>



### 3. Processing the data

- In total: 21 Neighbourhoods in Brussels
- The data set provides for all Neighbourhoods the longitude and latitude
- The Information from this data set will be used to get more detailed information about venues in the areas

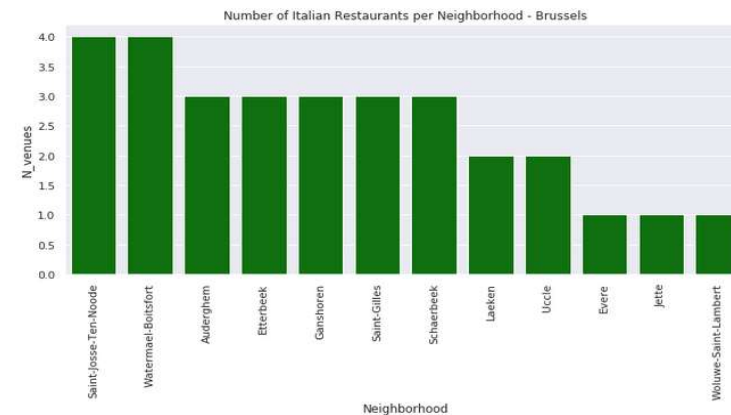
Out[113]:

	Zip Code	Neighbourhood	longitude	latitude
0	1020	Laeken	4.348713	50.883392
1	1030	Schaerbeek	4.373712	50.867604
2	1040	Etterbeek	4.389510	50.836851
3	1050	Ixelles	4.381571	50.822285
4	1060	Saint-Gilles	4.345668	50.826741
5	1070	Anderlecht	4.312340	50.838141
6	1080	Molenbeek-Saint-Jean	4.322778	50.854355
7	1081	Koekelberg	4.325708	50.862263
8	1082	Berchem-Sainte-Agathe	4.292702	50.863984
9	1083	Ganshoren	4.317510	50.871240
10	1090	Jette	4.326090	50.877763
11	1120	Neder-Over-Heembeek	4.390489	50.897796
12	1130	Haren	4.412571	50.891966
13	1140	Evere	4.402160	50.870452
14	1150	Woluwe-Saint-Pierre	4.443297	50.829243
15	1160	Auderghem	4.433139	50.815657
16	1170	Watermael-Boitsfort	4.415818	50.799394
17	1180	Uccle	4.337235	50.801820
18	1190	Forest	4.317751	50.809143
19	1200	Woluwe-Saint-Lambert	4.428484	50.846693
20	1210	Saint-Josse-Ten-Noode	4.372336	50.853074

## 4. Results

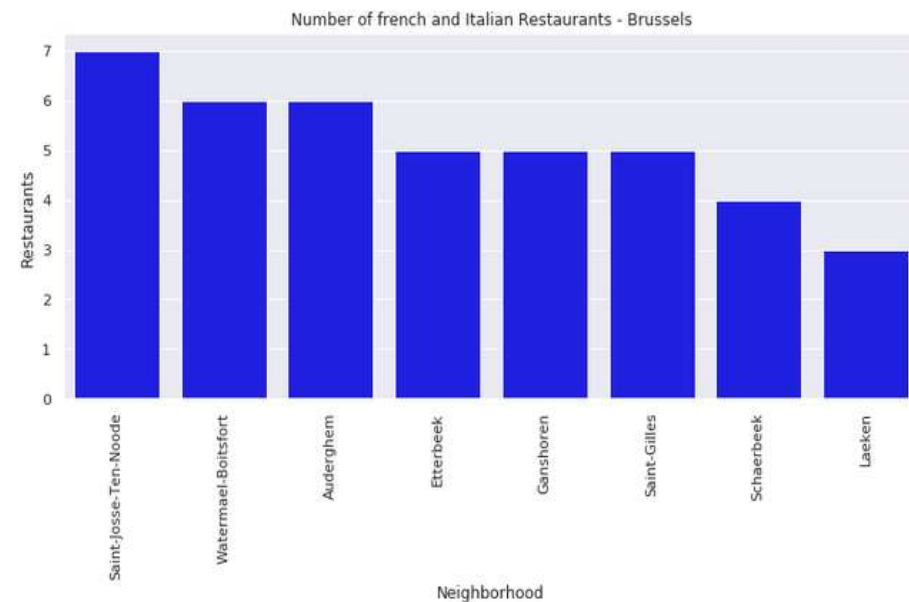
- One of the main result is that the number of Italian Restaurants is already very high
- The most popular places for Italian Restaurants are:
  - Saint-Josse-Ten-Noode
  - Watermael-Boitsfort
  - Auderghem

```
Out[40]: Venue Category
Italian Restaurant    30
Bar                   28
Plaza                 28
Supermarket           26
French Restaurant     24
Bakery                20
Restaurant            17
Sandwich Place        17
Park                  15
Snack Place           14
Name: Neighborhood, dtype: int64
```



## 4. Results

- Also, adding the french restaurants as well shows that the 3 neighbourhoods are popular locations for restaurants in general
- The top Region for Italian Restaurants is Saint-Josse-Ten-Noode
- The French-dominated region is Saint-Gilles



## 5. Conclusion

The top 3 neighborhoods for restaurants are:

Saint-Josse-Ten-Noode

Watermael-Boitsfort

Auderghem



**However:        There are already a lot of Italian Restaurants!**

The client should be aware of the high amount of Italian Restaurants and go over his strategy again with the new information from this analysis.