

# FINAL PROJECT REPORT

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# 1. Introduction to business problem

- ▶ The goal of this study is to compare to european capitals: Madrid and Berlin
- ▶ The comparison of two cities can be useful to:
  - Stakeholders in order to develop a business in one of the two cities and want to study pros and cons of each one
  - As an investigation on effects of globalization and diverse and multicultural cities
  - Implement different tools on Data Analysis, Data Visualization and Machine Learning

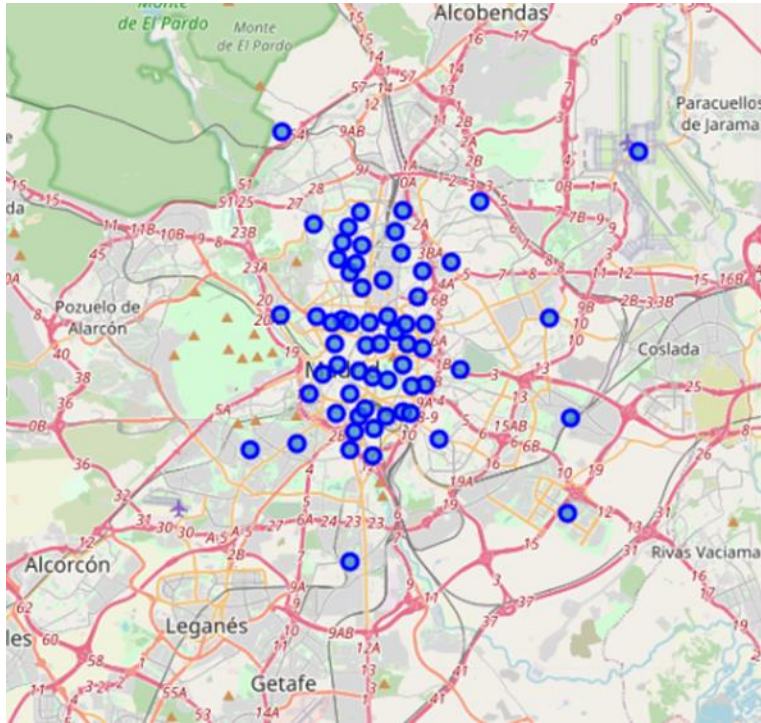
## 2. General numbers and numerical results

Restaurants	The city of Madrid has a higher 40.54 % of restaurants concentration in the average of all neighbourhoods studied than those in the city of Berlin
Cultural sites	As in the number of restaurants, in Madrid the cultural sites represent a higher percentage over the total sum of number of venues studied with Foursquare. This way, Madrid has a higher 52.5 % of cultural sites proportion overall than Berlin
Hotels	A good parameter to compare two cities can also be the proportion of hotels over the total number of venues. In this case Berlin wins by a 30.31 %
Green spaces	Studying green spaces both cities have, Berlin clearly outputs Madrid with almost a 182 % higher concentration of Parks, forests, rivers, canals, etc. than Madrid
Shops and stores	Berlin also outputs Madrid when talking about shops, stores and other locals to buy products with a 68 % higher proportion of these types of venues

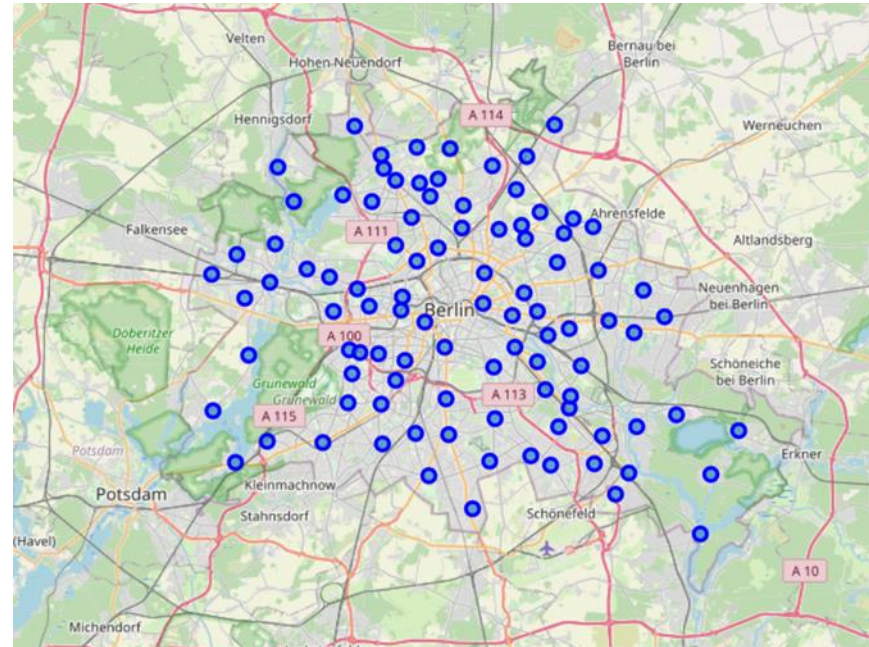
# Conclusions on raw, general data

- ▶ The data gathered in the table above shows the proportion of each type of venue over the total number of venues. Because of this, we are able to work and analyze the data in a more individual way, not only for each neighborhood, but also for each type of venue obtained from Foursquare.
- ▶ Even though it does not seem to be many similarities between both cities, the biggest similarity we can obtain from this data is how big cities, although they vary from each other in some aspects, have grown to offer every possible aspect to cover their citizens need and how almost every venue that figures in Foursquare is covered and available in Madrid and Berlin.

### 3. Similarities through maps



Map of Madrid



Map of Berlin

# Conclusions on maps analysis

- ▶ In Madrid, the most populated districts, located in the city centre, have the higher ratio of number of venues proportion. And in Berlin, the proportion of number of venues increases in the localities located Central and North of Berlin.
- ▶ This distance factor also affects the green zones in both cities. Most neighborhoods that have a higher proportion of 'green venues' are a bit outside Berlin and Madrid and are clearly less populated than the others.

## 4. Final conclusions

- ▶ Madrid and Berlin have similarities and dissimilarities based on their different countries.
- ▶ As european cities share a common distribution of number of venues correlation
- ▶ As both major cities and european capitals, both are affected by globalization:
  - More multicultural
  - More diverse
  - With a larger amount of different venues
- ▶ Both cities can be able to host any type of business and the stakeholders interested in which city should they chose would need to perform an analysis based on citizens interests rather than only performing a neighborhood comparison