

THE BATTLE OF THE NEIGHBORHOODS

Coursera Data science Project

Introduction

In Cologne the rents are very high and it is difficult to know if the rent is reasonable or too high when looking for an apartment.

So with this Project we can help people to see:

- If the rent demanded by the owner is too high for the spesific District
- Which district is the cheapest district
- which area is the best regarding the venues

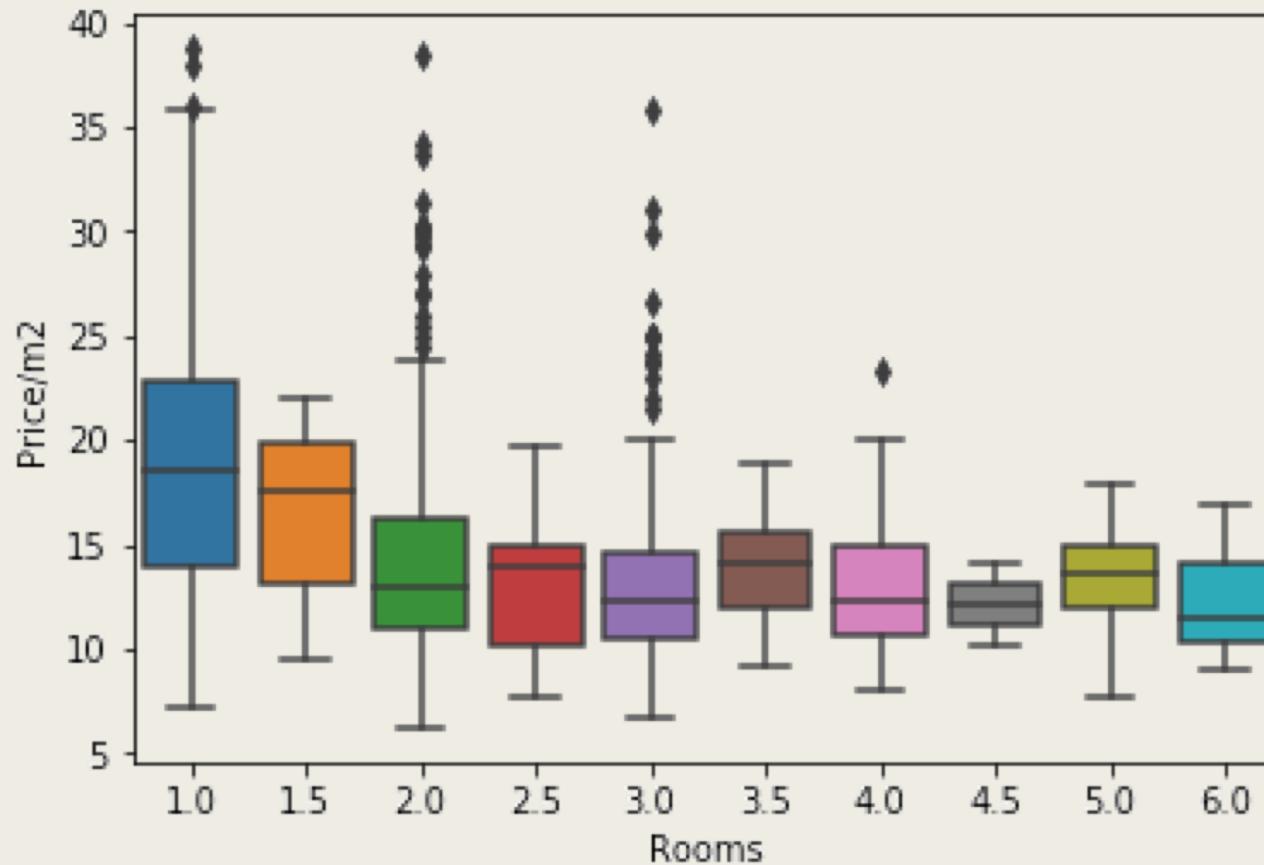
This project helps people who want to move to Cologne or people who already live in Cologne but are looking for a new apartment.

Data

- The data on apartments (size, number of rooms, address, and price) is collected by scraping a local website with apartment listings (Immoscout24.de).
 - *Total of 970 apartments offered on Immocout*
- Using geopy coordinates for each district are obtained
- Using Foursquare data to collect the top 10 venues for each district

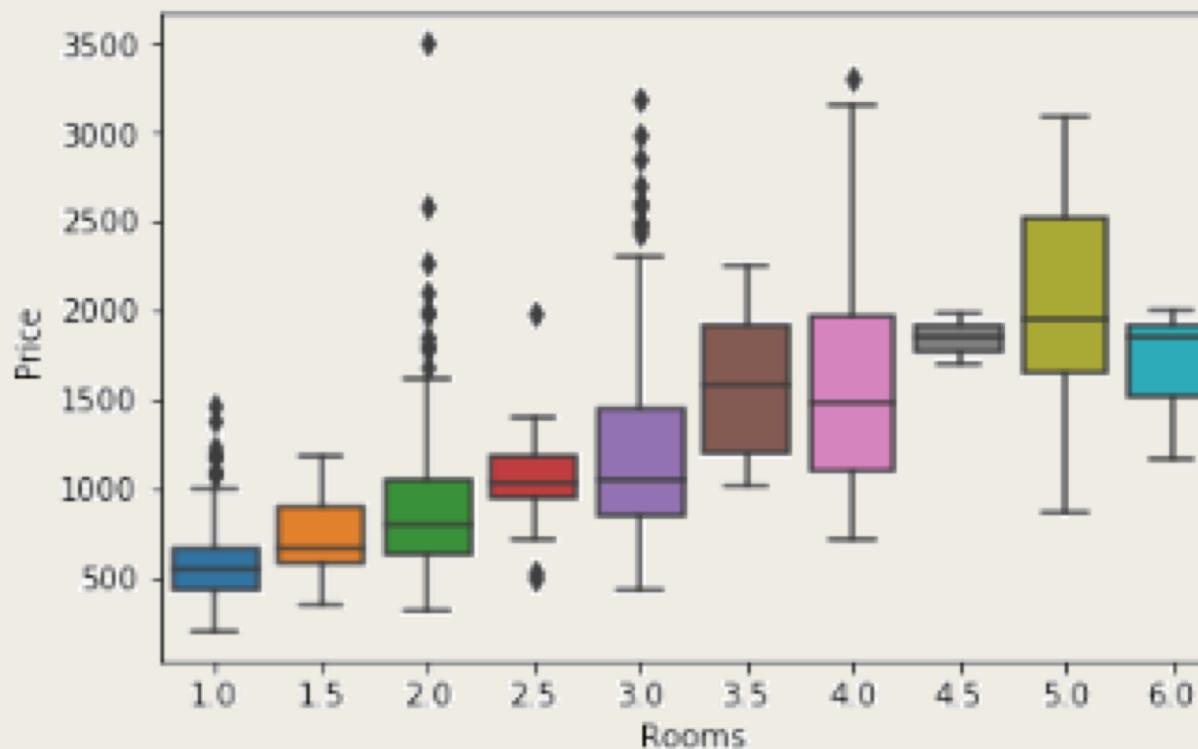
Data

- In this chart we can see, that all apartments are approx. in the same range except the 1 and 1.5 room apartments. These are far more expensive than the others



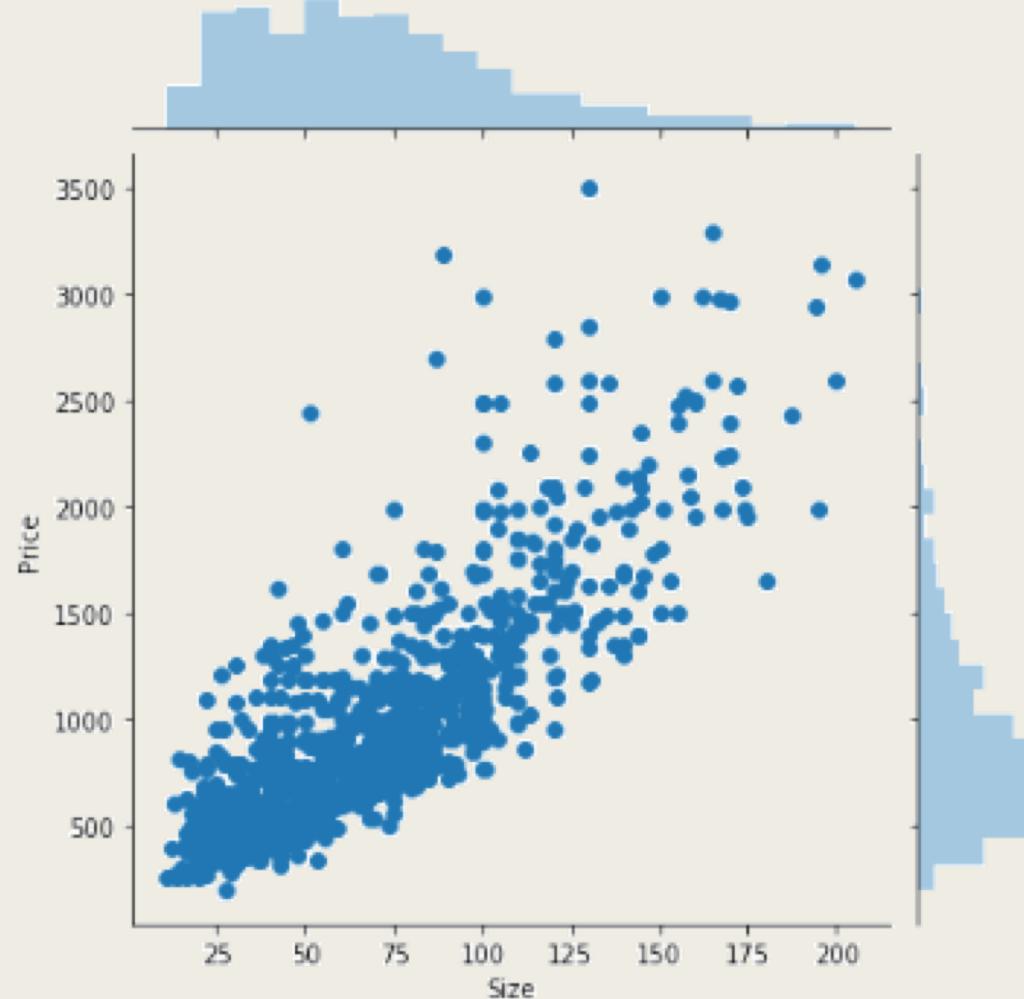
Data

- As expected, the prices for the apartments are increasing as the number of rooms is increasing. Interesting to see, is that the price for the 6 room apartments are decreasing.



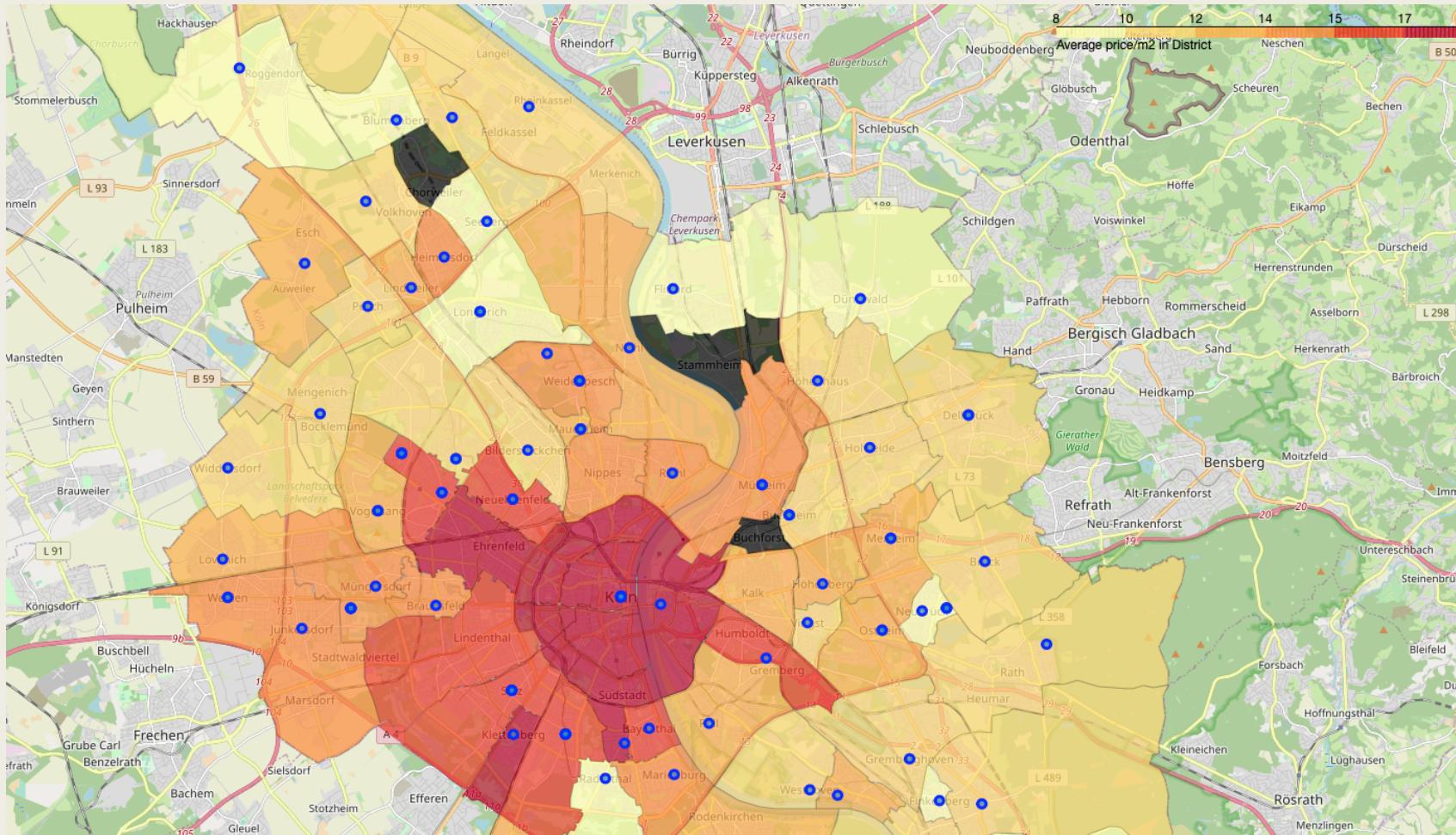
Data

- We can also see a strong correlation between price and apartment size



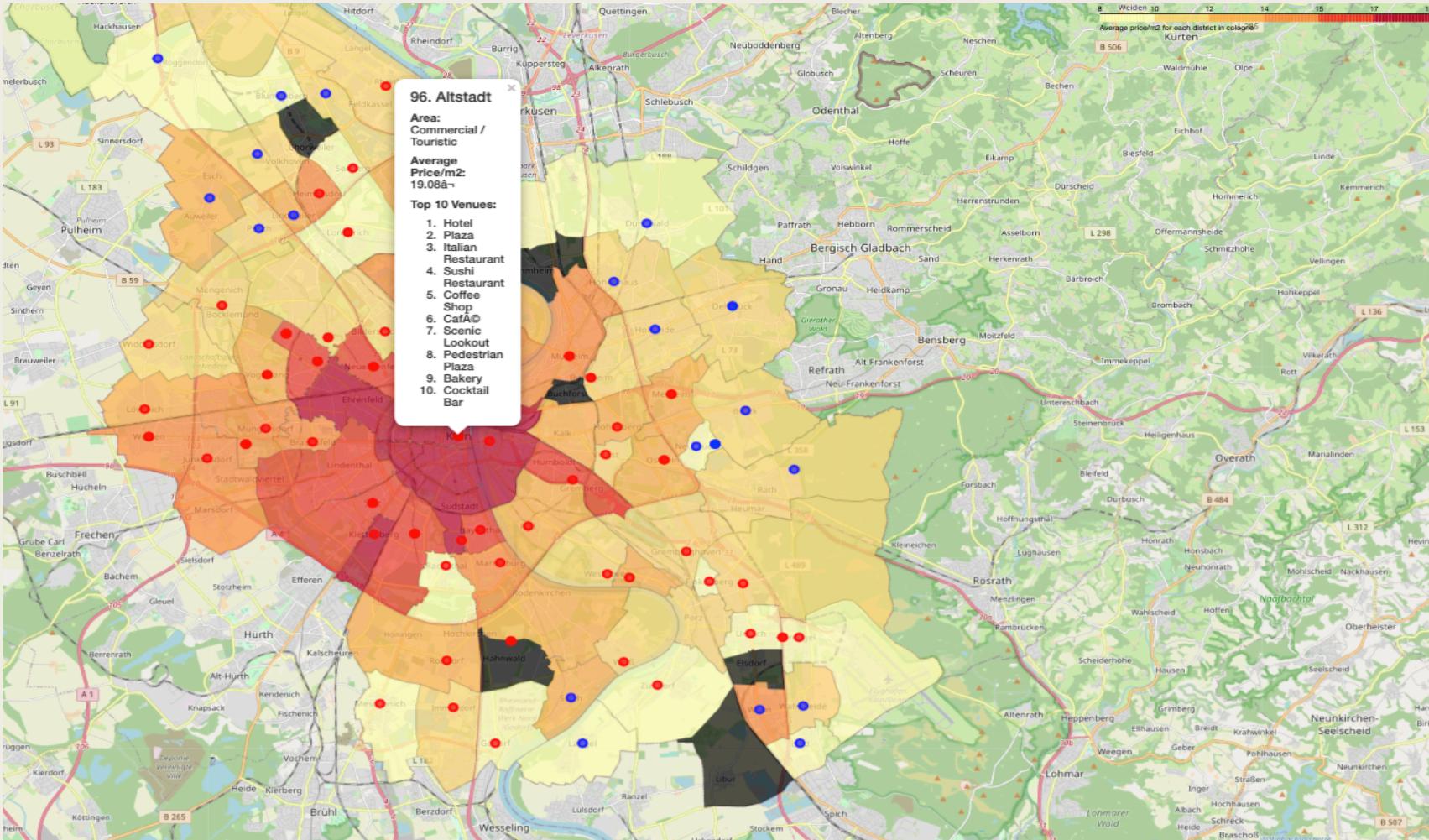
Data

- Average price/m² for each district



Results

- The average price/m² for each district in Vienna with area types and top 10 venues per district



Results

- With this map, one could determine for example that the district "Altstadt" is the most expensive district to live in, however by clustering we determined that there are several more similar districts where the price/m² is significantly lower. Therefore, if someone wants to rent an apartment but cannot afford to live in the district "Altstadt", they could look for apartments in Longerich or Raderthal which is similar in venues but has much lower price for renting apartments.[¶](#)
- It should be noted that this analysis was carried out on the basis of random sample results (results of one Immoscout.de query). This means that the results are critical and should be observed over a longer period of time in order to achieve a realistic result in terms of the price.