

Berlin Airbnb Price Analysis

By Camilo Eduardo González Meyberg

BUSINESS PROBLEM

- Berlin is the capital and largest city of Germany by area and population.
- Berlin is the second most populous city of the European union
- Berlin is the third most visited destination
- Online portals of the so – called “sharing economy”, such as Airbnb, are marketing to tourists and have proven to be a profitable business.
- There are 11.701 listings in Berlin being equal to 0.4% of all the city flats
- The Objective is to know the relationship between the location and kind of nearby venues and spots with the price for an Airbnb room per night.

DATA COLLECTION

To consider the above problem, the data were collected as followed:

- Airbnb listing data set of Berlin. Including key features as the location coordinates, neighborhood and price per night of the room.

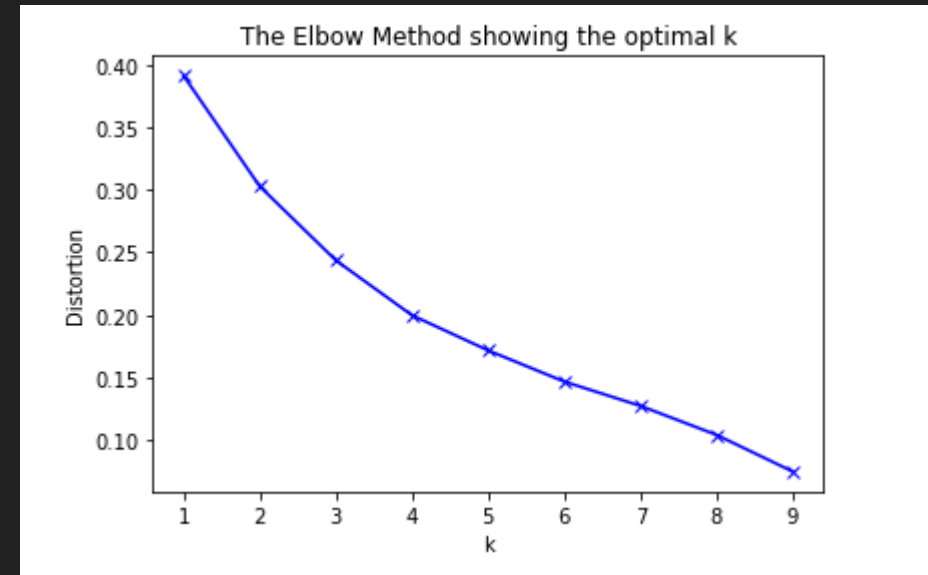
URL: <http://insideairbnb.com/get-the-data.html>

- Foursquare API to get the most common venues of given neighborhood of Berlin.

METHODOLOGY

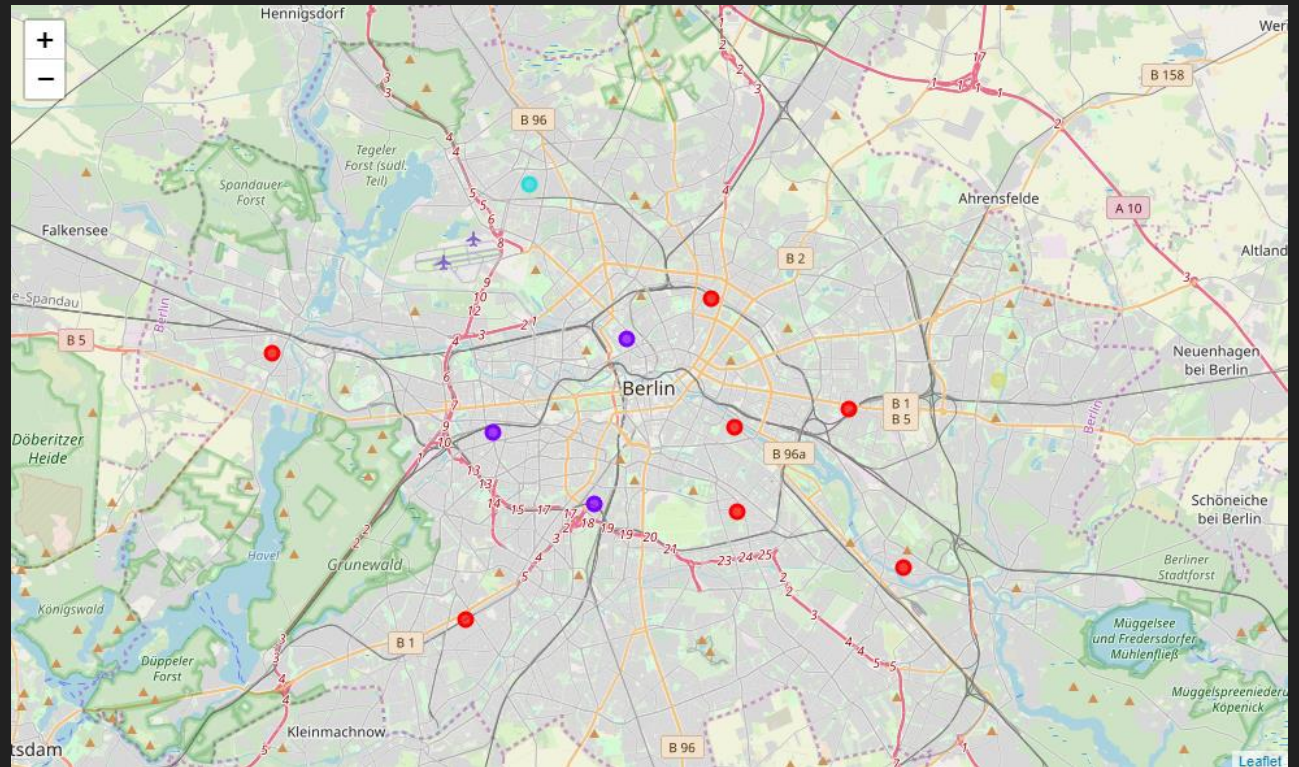
K-MEANS ALGORITHM

- Selected a k-cluster value of 4 according to the elbow method.



RESULTS

- Obtained 4 apparently different clusters.
- Types of venues relative equally distributed along the clusters
- the room prices change according to the location of the neighborhood



RESULTS

HIGH PRICE ZONE	HIGH – INTERMEDIATE PRICE ZONE	LOW – INTERMEDIATE PRICE ZONE	LOW PRICE ZONE
Prices between 97 and 110 euros per night	Prices between 59 and 70 euros per night	Prices of 59 euros per night	Prices of 49 euros per night
Zones: Charlottenburg-Wilmersdorf, Mitte and Tempelhof-Schöneberg	Zones: Friedrichschein-Kreuzberg, Lichtenberg, Neuköln, Pankow, Spandau, Steglitz-Zehlendorf and Trettow-Köpenick	Zones: Marzahn-Hellensdorf	Zones: Reinickendorf
Central areas	Western areas. A bit further from center.	Eastern – peripheric area.	Northern – peripheric area

CONCLUSIONS

- The location selection has a big influence in the price of an Airbnb room in the city.
- The central areas are the most expensive and the price decreases according to the distance from the center of the city.
- The further the location, the lower the price.
- All the zones have relatively good transport connection and different kind of venues.



Thanks!!