

Where would you open a new shopping center in Hamburg?

Background

As ‘the gateway to the world’, Germany’s second-largest city and biggest port – Hamburg, has been continuously attracting native Germans as well as tourists. We want to discover more about the diverse, vibrant neighborhoods with multicultural eateries and centers, to explore investment opportunities in real estate industry, in this project specifically, identifying optimal shopping center locations.

Business Problem and Target Audience

The objective of this project is to use machine-learning methods (e.g. clustering) in Python to analyze and identify the optimal locations to open shopping centers in the city of Hamburg, Germany. The project might be useful and interesting for real estate developers and investors looking for solid investment in European market.

Data Requirements

We would need the following data for our project:

- List of neighborhoods in Hamburg (e.g. Alsterdorf, Blankenese, Hamm, etc) for scope definition: it will be extracted using web scraping from Hamburg Wikipedia pages;
- Latitude and longitude coordinates data of the above-mentioned neighborhoods: Python Geocoder package is used to get latitude and longitude coordinates;
- Venue data for the neighborhoods, which particularly includes shopping center data, (e.g. location, tips, and categories): venue data is used for clustering and will be extracted with Foursquare API.