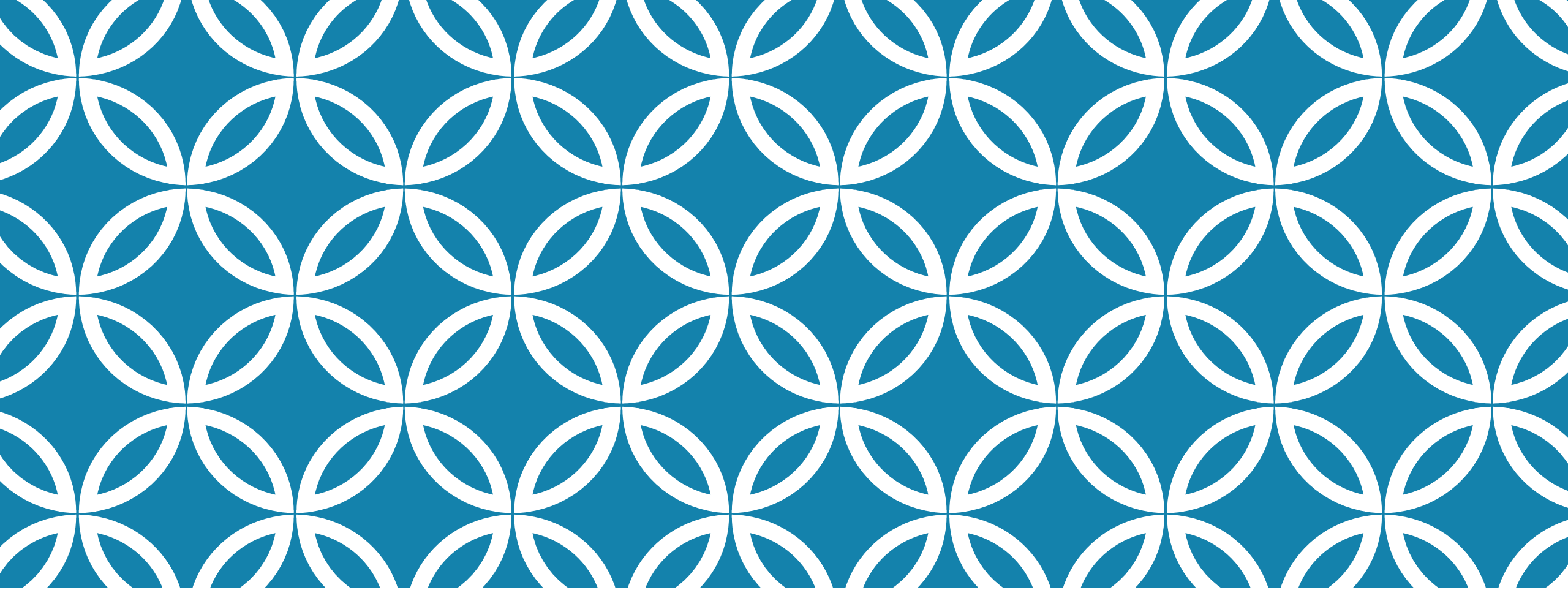


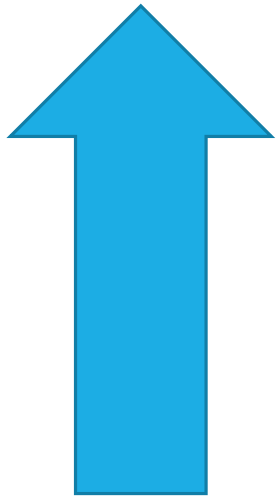
EUROPEAN CITIES

Teja Percic

Finding suitable cities for young people in europe

Criteria

Housing price



Number of vendors

DATA ACQUISITION AND CLEANING

List of EU cities and prices for buying an apartment or house in each city (https://ec.europa.eu/eurostat/web/cities/data/database).

- Removed columns and rows with no data

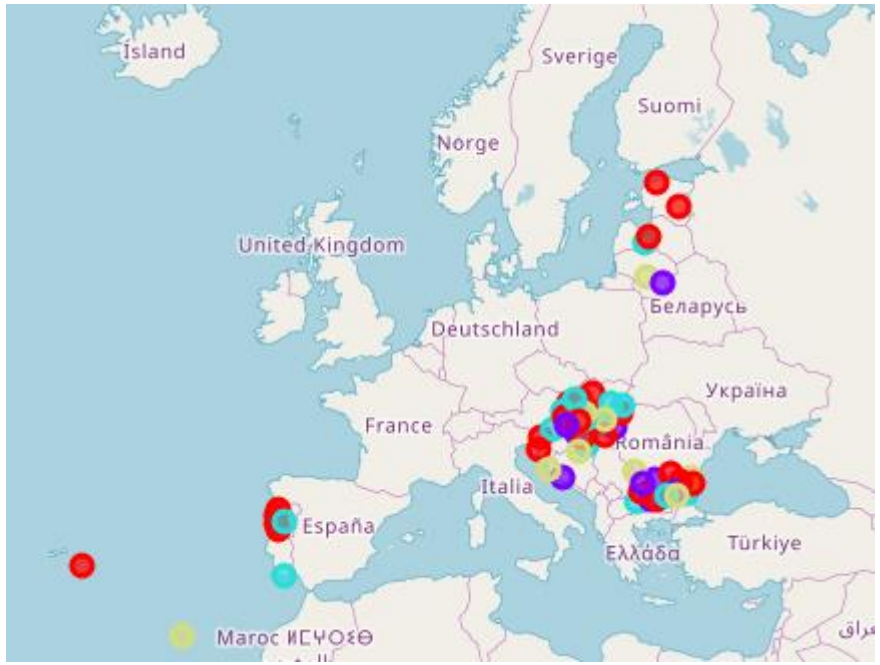
List of coordinates (latitude, longitude) for European cities (https://simplemaps.com/data/world-cities)

- Removed columns and rename columns

Number of Venues in each city, within a certain radius from the centre of the city (Forsquare API)

- Create a dataframe of nearby venues with name, latitude, longitude, venue data

CLUSTERING



Cluster cities based on number of vendors in 4 clusters with K-means.

The cities with lowest price for buying an apartment/house are mostly in Cluster 2 (Blue), where the average price is the lowest between clusters. But when we look at the list of top 20 cheapest cities, we can see that they are in every cluster. The cities with most venues are in Cluster 0 (Red).

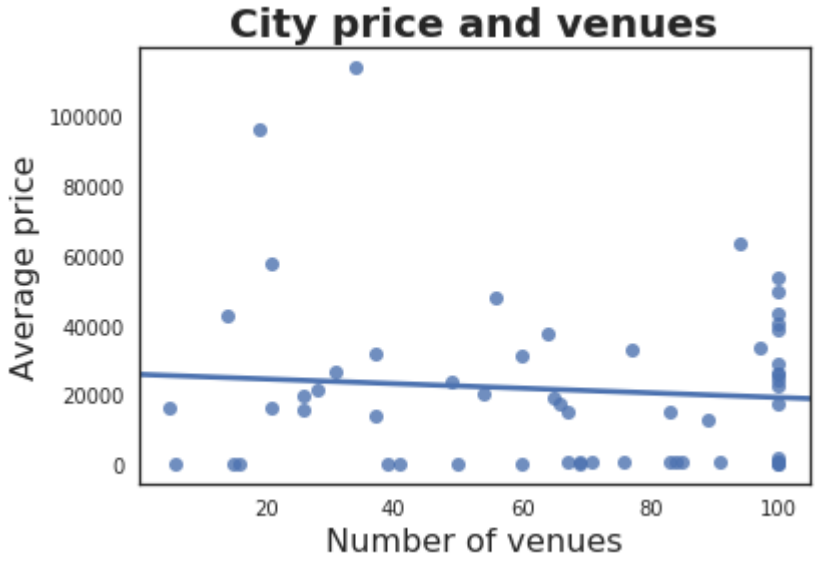
The best choice for me would be to choose a city that is among those in the table "cheapest2" which has the lowest average prices for buying an apartment/house and is in cluster 0 (has most venues).
Table 1: European cities with lowest average apartment/house prices in EUR per m2 and highest number of venues.

DISCUSSION

The best choice for me would be to choose a city, which has the lowest average prices for buying an apartment/house and is in Cluster 0 (which has most venues).

European City	Cluster Label	Numer of Venues	Average price
Budapest	0	100	785.0
Debrecen	0	100	675.0
Szeged	0	100	570.0
Pécs	0	100	502.5
Szombathely	0	91	634.5

CORRELATION



Because there is no linear correlation between price and number of venues, we can see that clusters contain cities with different average prices (high and low).

THANK YOU!