Introduction / Business Problem

- One businesswoman will make an investment at the one of biggest cities of the World.

- She wonder which investment types are popular at these cities and can we group these cities by places in the city

- She also thinks hotel investment at big cities are popular. Is it true?

- Hotel invesment rates compared to other places are about PPP, GDP and Population

I will make a cluster analysis for biggest cities of the World according to places at there, using foursquare api, wikipedia (to find biggest cities of countries)

I think we can make regression analysis GDP vs Hotel Rate, PPP vs Hotel Rate, Population vs Hotel Rate. However, we should look at scatter plots of these.
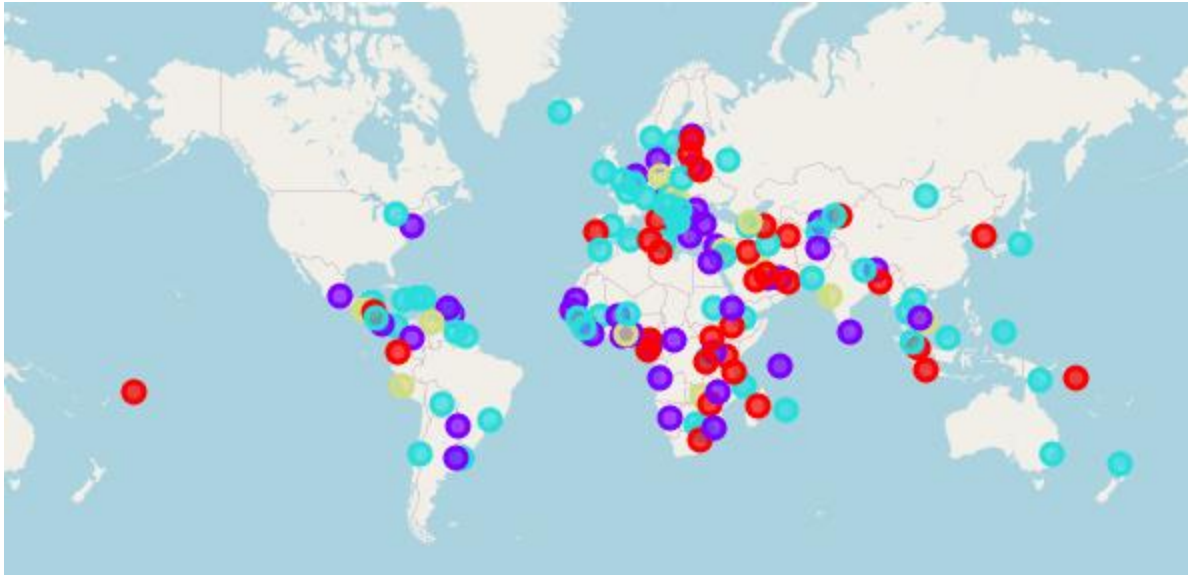
Data

- I will use wikipedia GDP per capita data to find GDPs.

- I will use wikipedia PPP data to find PPPs.

- I will use biggest cities of countries data to find biggest cities and populations.

- I will use latitudes and longitudes of cities data

- I will use foursquare api.

1. https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(nominal)_per_capita

2. https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(PPP)_per_capita

3. https://en.wikipedia.org/wiki/List_of_countries_by_largest_and_second_largest_cities

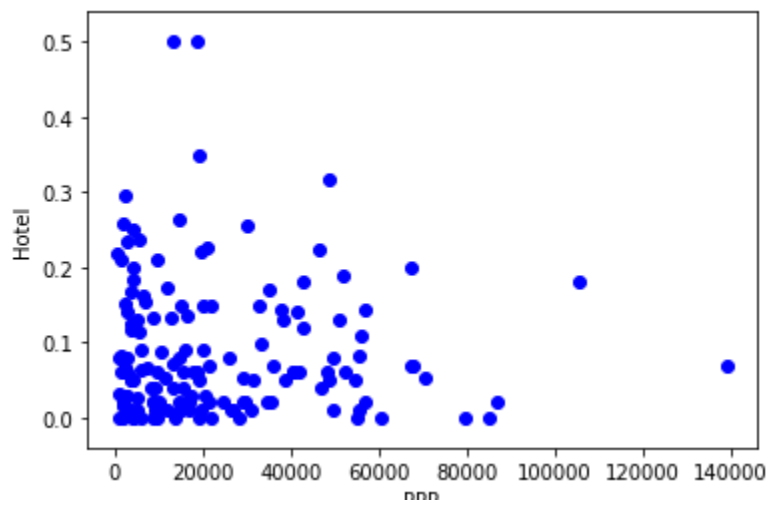4. https://simplemaps.com/data/world-cities

Methodology

- I will make cluster analysis of cities according to their most common venues.
- I will evaluate scatter plots for hotel frequency vs GDP,PPP and population for hotel investment.
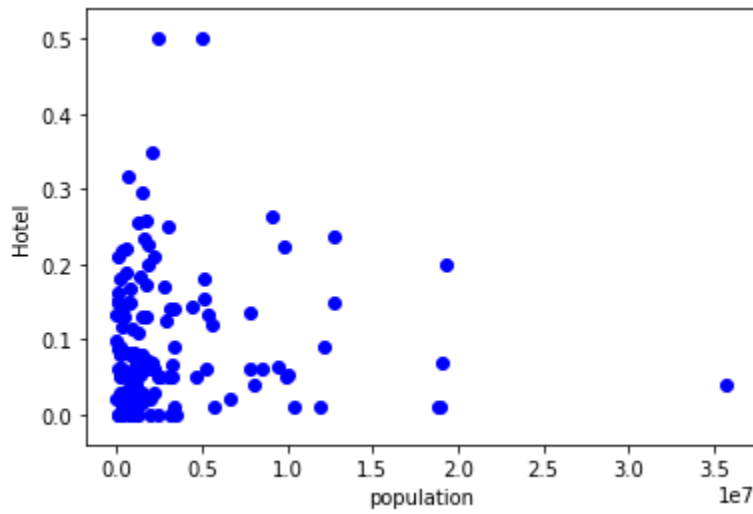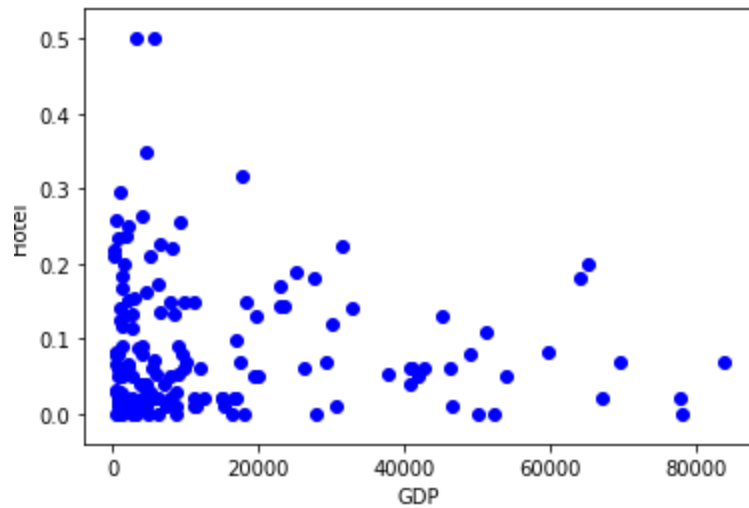
Results

- I made cluster analysis as cluster number=4 for countries biggest cities venue frequencies. My observation is Europe and other welfare countries usually in same cluster and African countries, other countries has a pattern. Map is at below.

- Scatter plots shows us there is no correlation between GDP,PPP,Population vs Hotel Frequency

Discussion

- Using venue ratings and refined venue types like parks, museums etc. may refer to better results.
- Hotel investment can be better analyzed with tourist attracted venues.

Result

- My observation is Europe and other welfare countries usually in same cluster and African countries, other countries has a pattern.
- There is no correlation between GDP,PPP,Population vs Hotel Frequency.