# New Hostels locations in Porto

#### Background

- Porto is a Portuguese northern city;
- Second biggest city of Portugal;
- For the last 20 years the tourism has increased significatively;
- There was huge business creation like restaurants, bars and hostels;
- There is high demand for accomodation;

## Problem description

Identify most suitable locations to open new hostels in Porto centre, Portugal.



Figure 1 – Porto city centre.

#### Criteria and data exploration

- Identify high density restaurants and bars regions where there is a lack of accomodations nearby;
  - Opportunity for new hostels installation.
- Identify high density hostels regions;
  - Regions to avoid for new hostels installation.
- The data is obtained using Foursquare;
- Using K-Means Neighbours identify the respective regions.

## Restaurants and bars locations

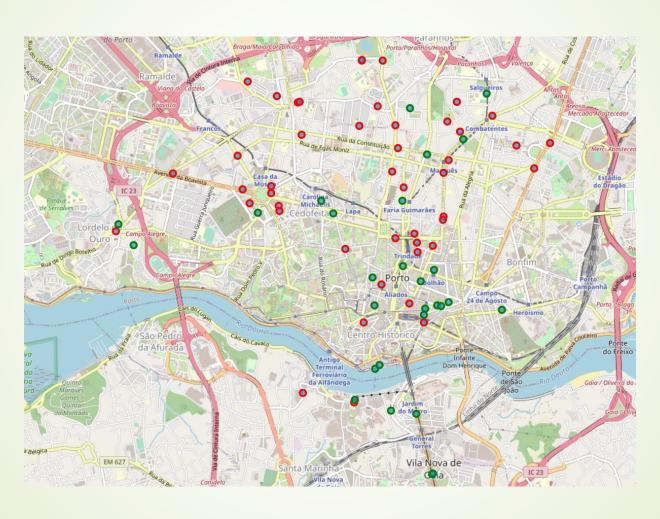


Figure 2 – Restaurants (red points) and bars (green points)

## Hostels locations

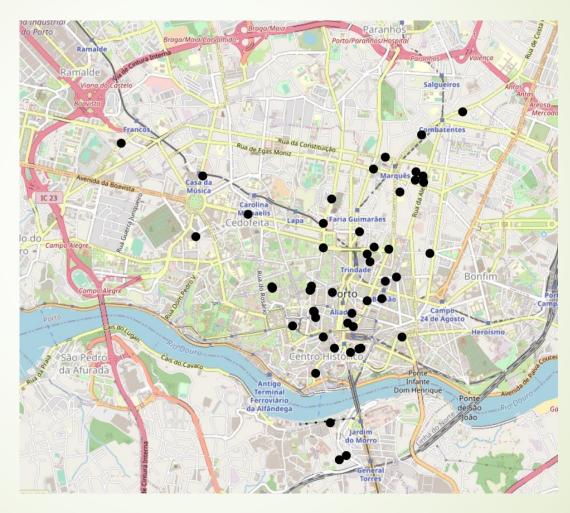


Figure 3 – Hostels locations

## Restaurants, bars and hostels

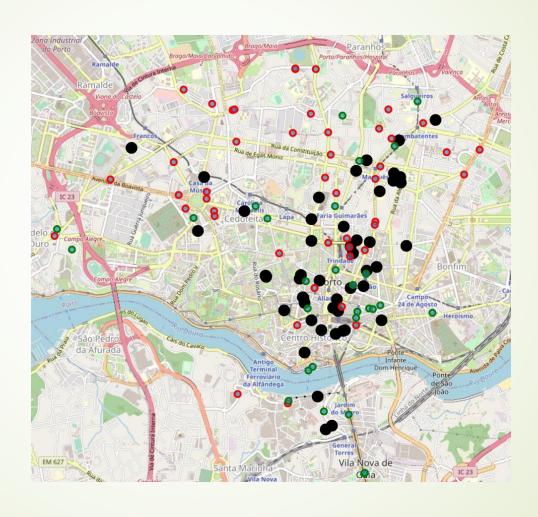


Figure 4 – Restaurants (red), bars (green) and hostels (black).

# Clustering restaurans and bars

► K-Means → 10 clusters

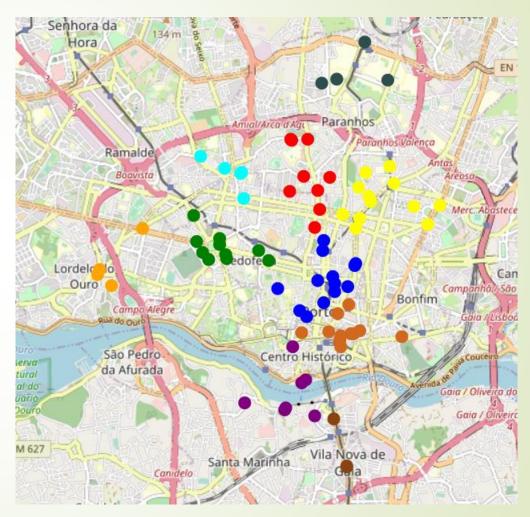


Figure 5 – Clustering restaurants and bars

# Identifying the opportunities

- 4 Regions;
- Red and light blue regions are highly recommended;
- Orange and dark greyregions are weakly recommended;

