

IBM Data Science
Applied Data Science Project

Peer-graded Assignment: Capstone Project
The Battle of Neighborhoods (Week 2)

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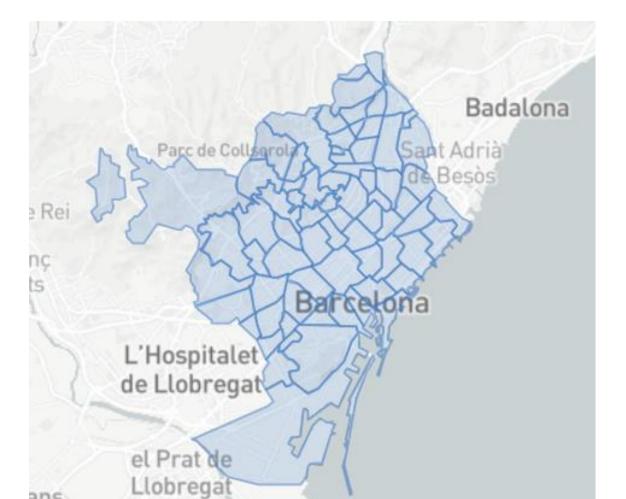
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Scope and data sources of the analysis

Objective:

To cluster Barcelona city (Spain) 73 neighborhoods according to various data (mean rent price, surface, population density, most common venues).



Data sources:

Foursquare / Developer, Barcelona city hall open data, Police Force of Catalunya, Wikipedia, Github (geojson)

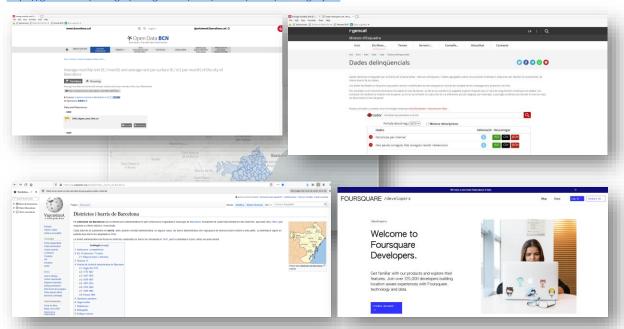
https://developer.foursquare.com/developer/

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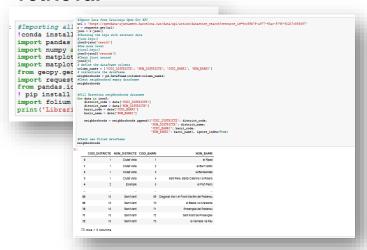
https://ca.wikipedia.org/wiki/Districtes i barris de Barcelona

https://github.com/martgnz/bcn-geodata/blob/master/barris/barris.geojson



Methodology

1.Python libraries and data retrieval



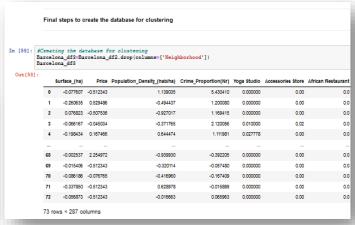
4. Venues exploration



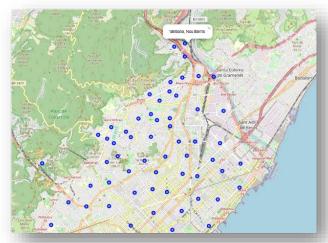
2. Data preprocessing

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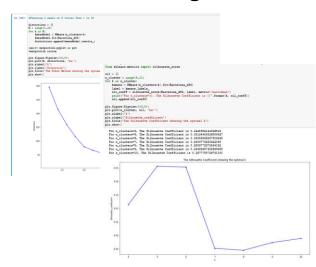
5. Dataframes merging (all data) and standardization



3. Neighborhood coordinates retrieval and map exploration



6. K means clustering



Results: 73 Barcelona neighborhoods are divided in 5 clusters in a meaningful way. Further improvement recommendations are also detected (please see report).

