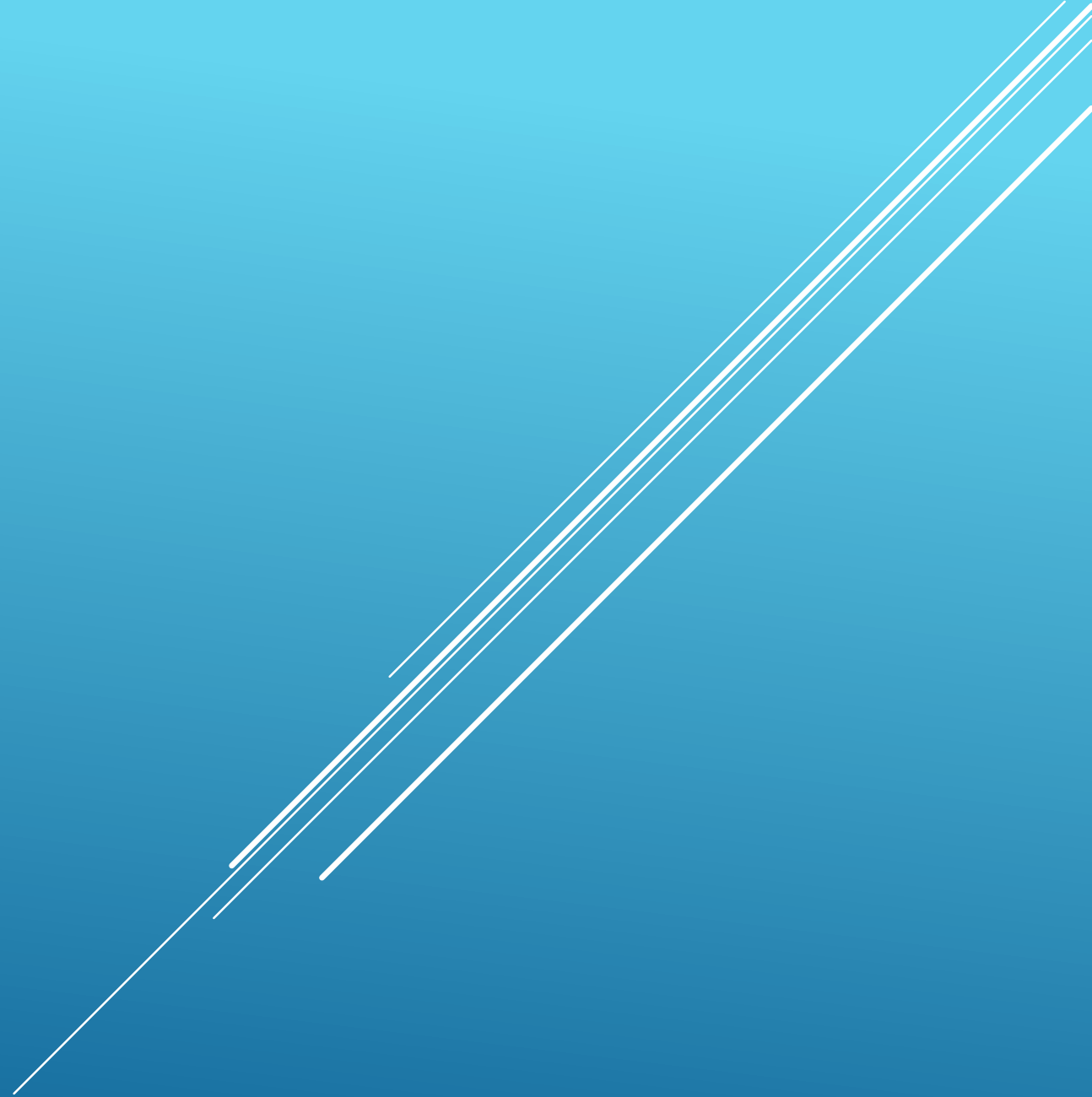


# LOS ANGELES NEIGHBORHOOD ANALYSIS



- ▶ Let's imagine that some big travel company decided to expand their business. They plan open new hotel, restaurant and travel agency in Los Angeles City, CA. The stakeholders of the travel company want to know which the most popular places for hotels, restaurants and company offices in the L.A. To get this information we'll should explore and clustering L.A. neighborhoods using neighborhoods geo information and venue information. Finally, we'll make visualization clusters on the L.A. map and give a recommendation to recognize that places to make final decision.

# INTRODUCTION

- ▶ Los Angeles County Neighborhoods - the dataset from the UCLA Geoportal. This dataset exists in the GeoJSON format and contains the data about all segments of the L.A. City
- ▶ Foursquare - the venues data for L.A. neighborhoods. To get information about L.A. venues I'm using Foursquare Places API.

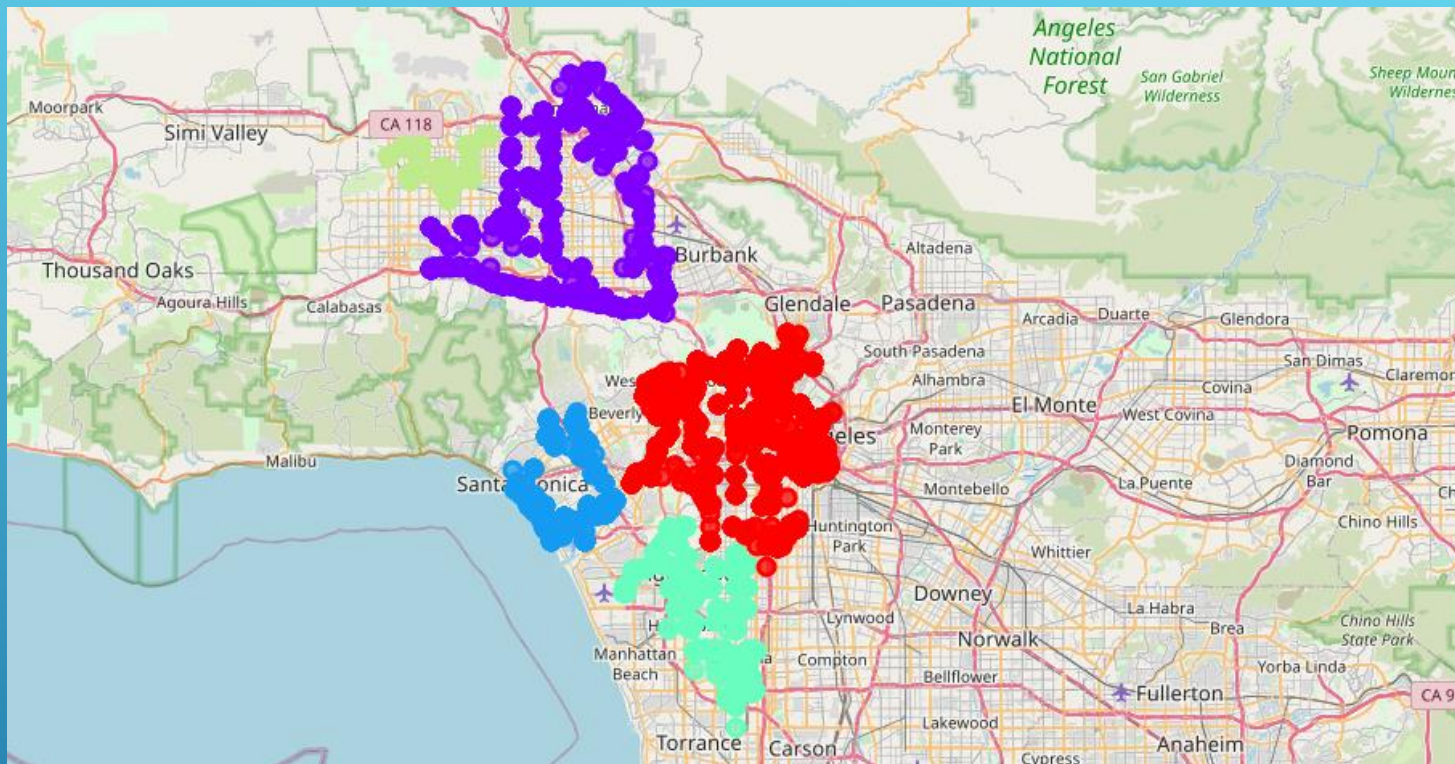
## DATA DESCRIPTION

- ▶ To get the most popular places of venues we should perform the spatial clustering. This goal is met by the DBSCAN algorithm i.e. Density-Based Spatial Clustering of Applications with Noise.
- ▶ DBSCAN is particularly effective for tasks like class identification on a spatial context. The wonderful attributes of the DBSCAN algorithm is that it can find out any arbitrary shaped cluster without getting effected by noise.

## METHODOLOGY

- ▶ Firstly, the results of venues clustering are shown on the L.A. map.
- ▶ Next, are calculating count of clustered venues of each neighborhood to show on the bar chart most popular and least popular neighborhoods by number of venues.

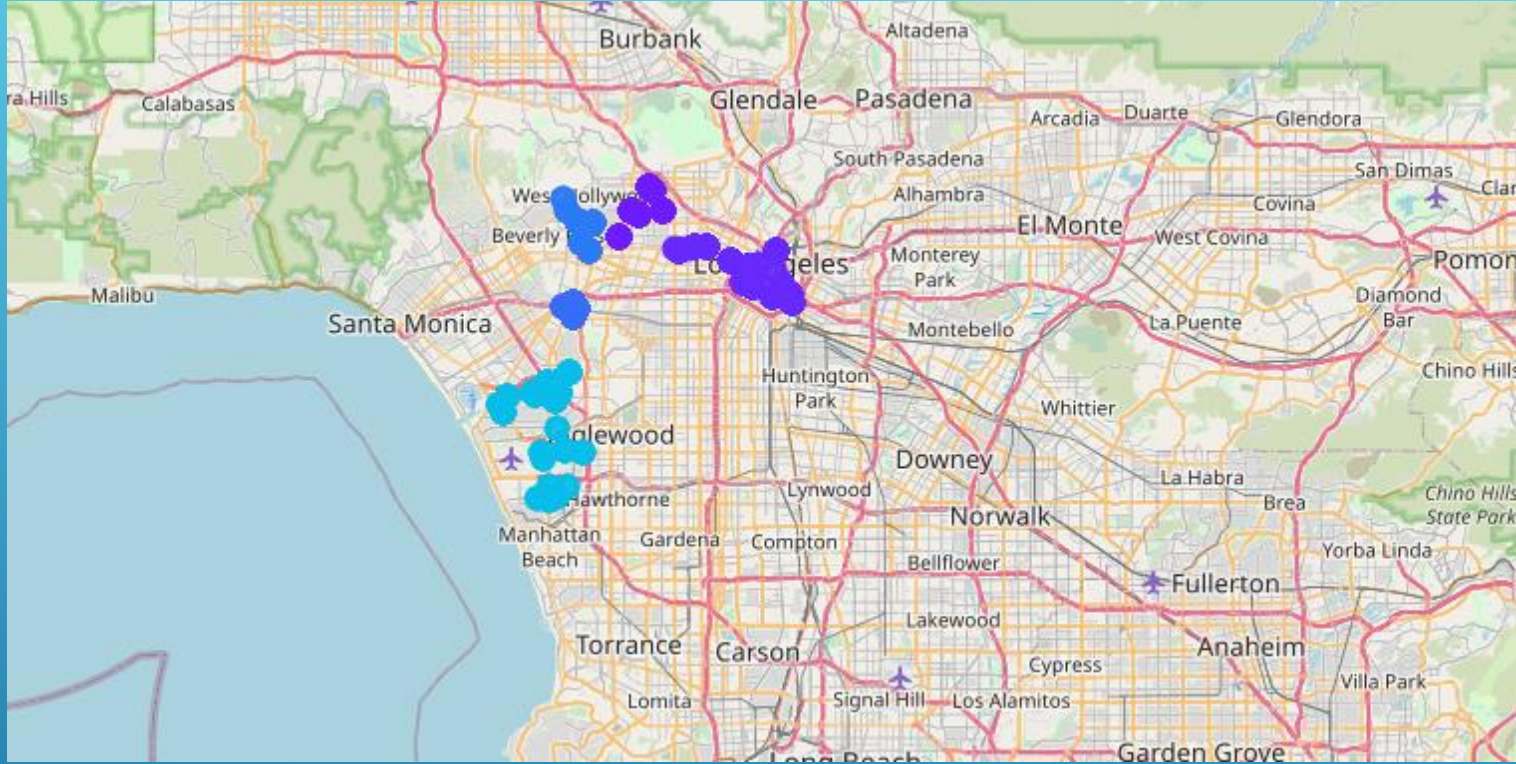
## RESULTS



*TOP 5 BIGGEST CLUSTERS IN THE FOOD  
CATEGORY ON THE L.A. MAP*

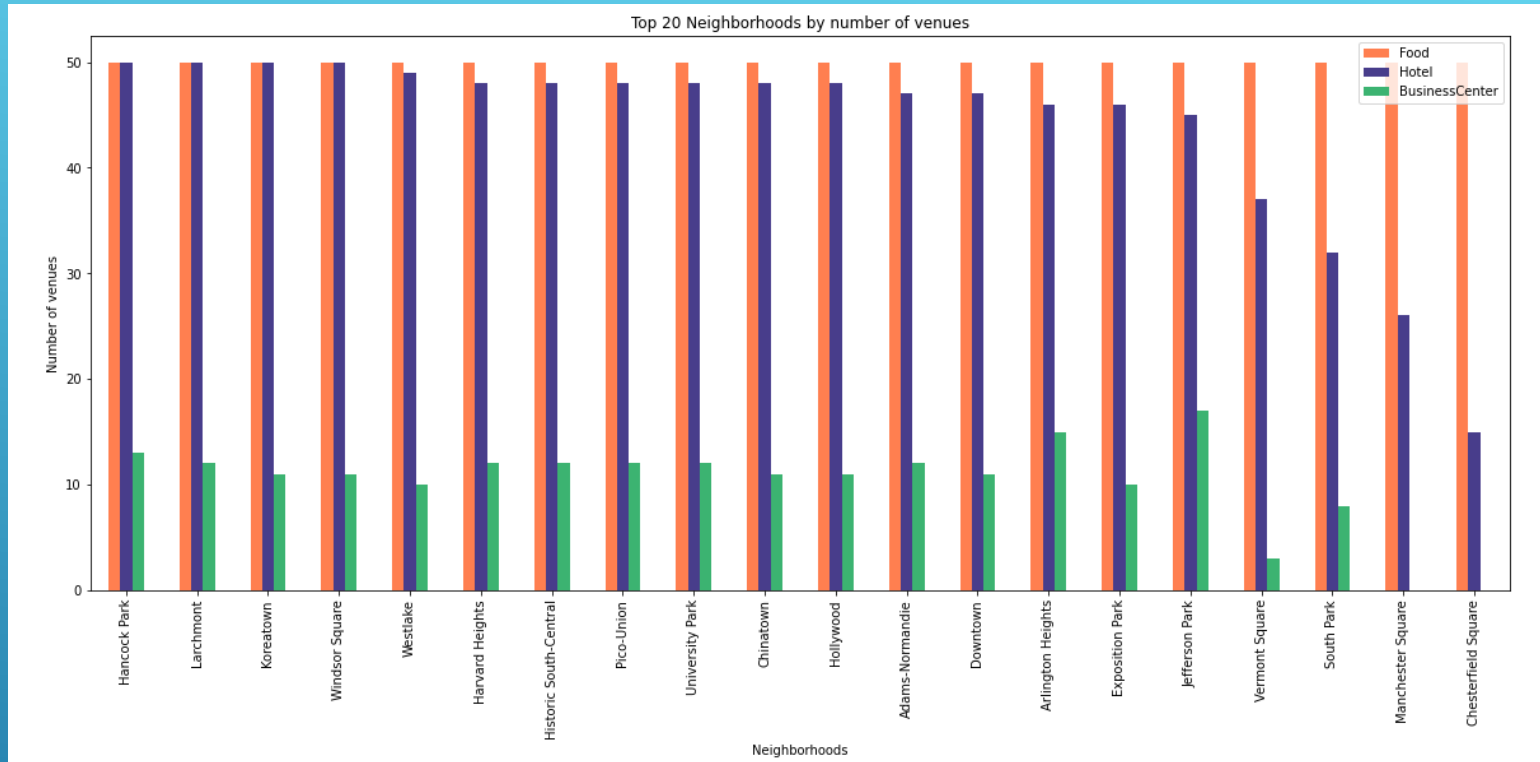




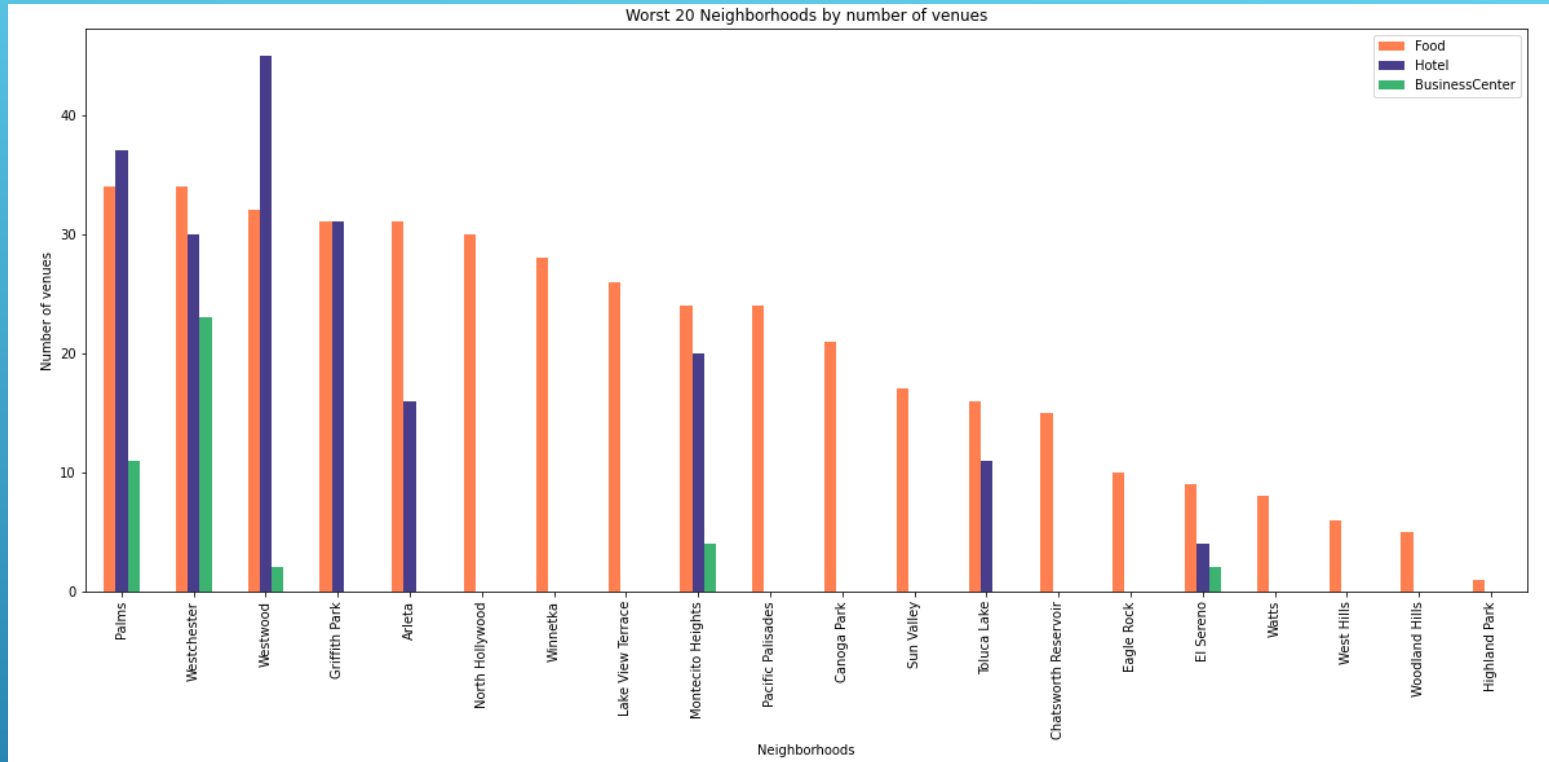


*TOP 5 BIGGEST CLUSTERS IN THE BUSINESS CENTER CATEGORY ON THE L.A. MAP.*





*TOP 20 NEIGHBORHOODS BY NUMBER  
OF VENUES ON THE BAR CHART*



*WORST 20 NEIGHBORHOODS BY NUMBER OF VENUES ON THE BAR CHART*

- ▶ For the neighborhoods with a large number of venues, we recommend buying an existing business (hotel, restaurant or office) instead of opening a new one. This will avoid hard competition press on a new business.
- ▶ For the neighborhoods with a small number of venues, we recommend opening a new business to develop it in a preferential environment.

## RECOMMENDATIONS