# IBM Capstone Project

Travel Agency Tour Recommendation

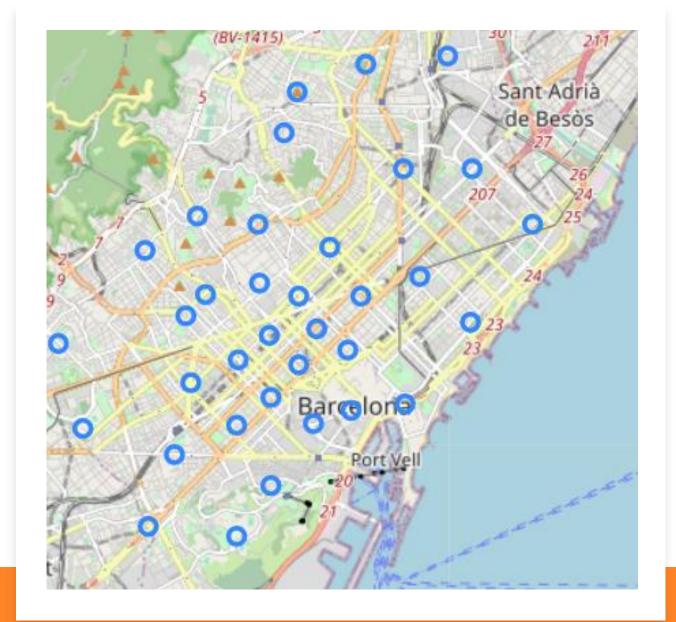
Levan Gvalia 2020

## Introduction

- Introduction of Visa Free Travel enables frequent and cheap travels for masses
- Travel Company where I work as analyst for wants
  - To Maintain advantage over competition customer tailored tour recommendations
  - To Gain on changes introduced earlier frequent and cheap flights for masses
- Solution to the problem Use Machine Learning to avoid losing main advantage as well as losing new customers

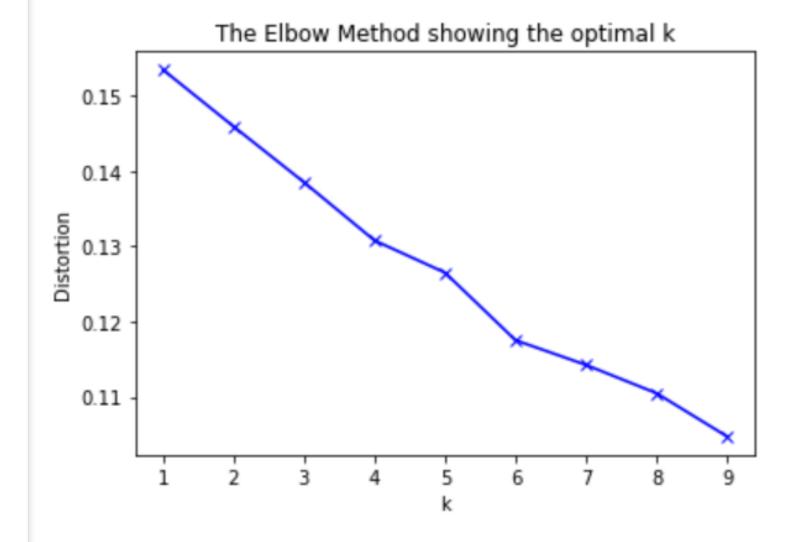
#### Data

- Neighborhoods and Postal Codes of Barcelona – local file
- Latitude and Longitude of Postal Codes Through Argis Geocoder
- Venue Data of neighborhoods Through Foursquare API

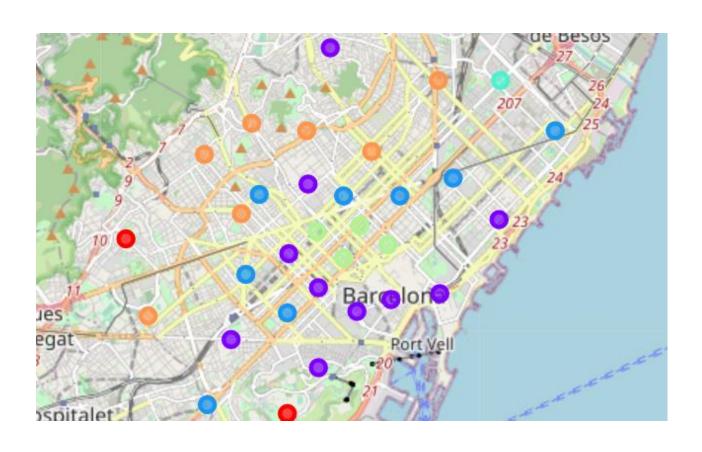


#### Methodology

- Neighborhoods grouped by top 10 venue categories
- K-means clustering unsupervised machine learning algorithm is used to find appropriate clusters
- Optimal of K-means cluster count is determined by elbow method

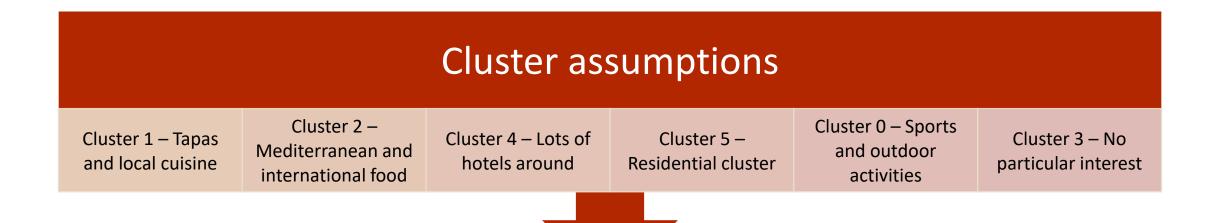


### Results



- Results are checked
  - On map
  - By individual neighborhoods
  - By aggregated clusters

#### Discussion & Conclusion



Cluster specialties ensures that recommendation based on machine learning can be a success

# Thanks