LOUNGE BAR

BRUSSELS
MOCKTAIL BAR
BELGIUM

What is the **Best location** for opening a Lounge Bar in Bruxelles ?

What **Strategy** should be adopted to achieve this objective?

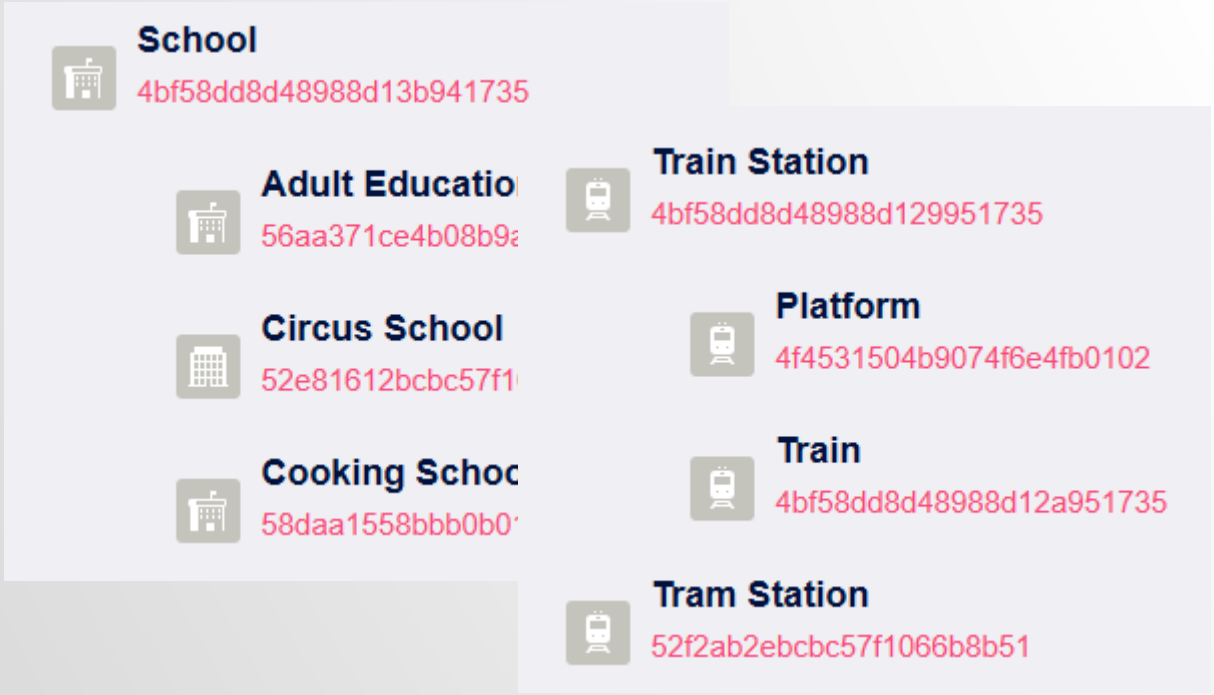
CHOOSING THE BEST PLACE FOR YOUR BUSINESS IS VALUABLE

- Accessibility and parking are vital
- Competing business is sometimes a good thing
- Overflow from other existing businesses (Restaurants, Bars,..)
- What are the potential customers (School, Factory,…)
- To answer these questions, a structural approach is necessary
- Data sources and Spatial analysis can help

DATA SOURCE

FOURSQUARE

- FOURSQUARE OFFERS A RANGE OF INTERESTING FUNCTIONS (API) FOR THIS PURPOSE (VENUES WITH LAT/LNG) AND MUCH MORE



Venue	Venue Latitude	Venue Longitude	Venue Category
Alliance française de Bruxelles-Europe	50.842615	4.367413	Language School
amira language school	50.839814	4.366747	School
Train@Rail	50.845332	4.357333	School
LSI (Language Studies Brussels)	50.846089	4.380639	School

Venue	Venue Latitude	Venue Longitude	Venue Category
Parc / Park (STIB / MIVB) (Park (MIVB))	50.845634	4.362325	Metro Station
Arts-Loi / Kunst-Wet (STIB / MIVB) (Kunst-Wet ...	50.845567	4.368596	Metro Station
Trône / Troon (STIB / MIVB) (Troon (MIVB))	50.840669	4.366280	Metro Station
Métro 1 Gare de l'Ouest > Stockel (STIB) / Met...	50.845304	4.369911	Metro Station
Metro Arts	50.845835	4.368932	Metro Station

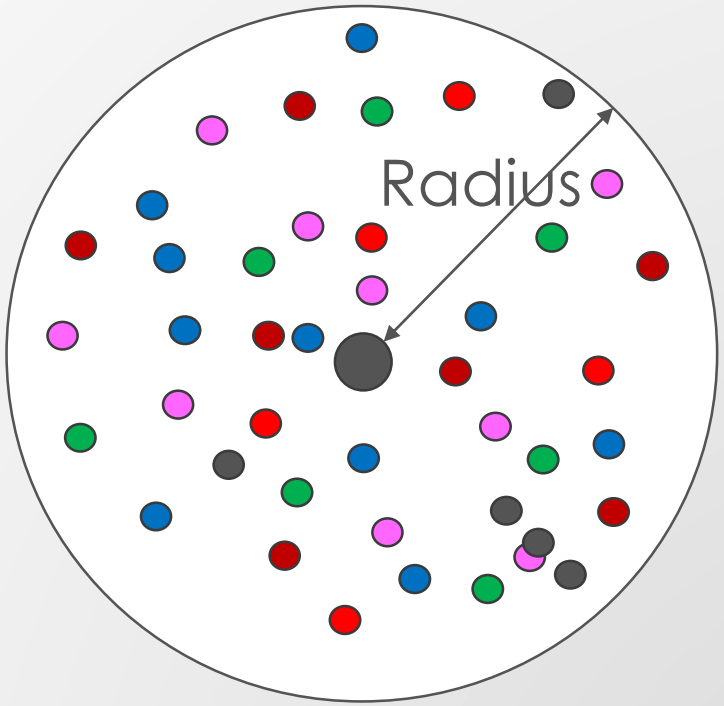
STRATEGY

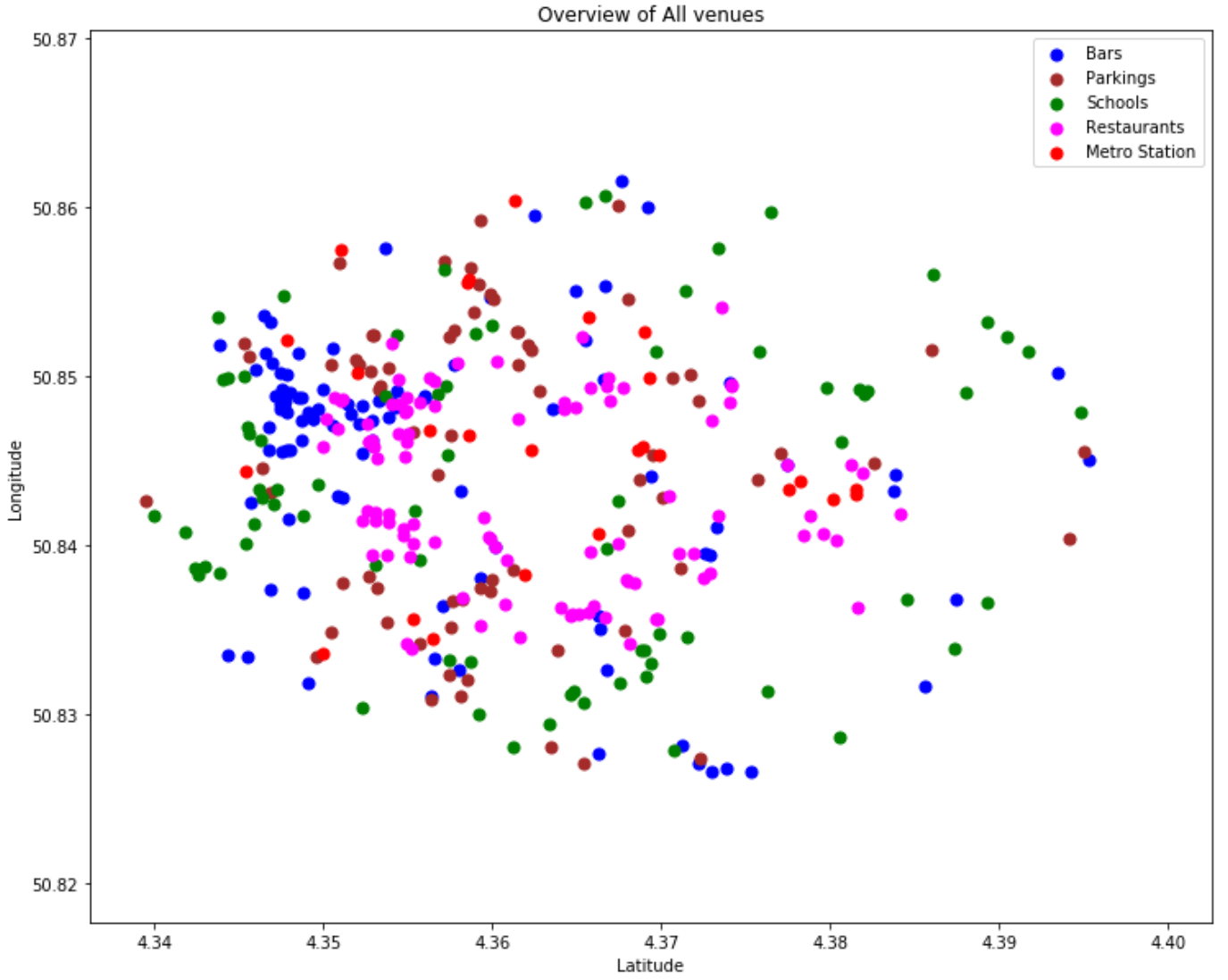
- CHOOSING A STARTING POINT : [LAT,LNG] OF BRUSSELS AS REFERENCE
- GET FOURSQUARE VENUES FOR “BARS”,”SCHOOLS”,”PARKINGS”,…
- EXPLORATORY DATA ANALYSIS
- DETERMINE “VENUES” CLOSEST TO “BAR” VENUES
- KEEP ONLY VENUES <= “MAX DISTANCE” PARAM FROM “BARS” VENUES
- AGGREGATE “BARS” VENUES WITH ALL ELIGIBLE VENUES INTO A DATAFRAME
- CLUSTERING WILL HELP US TO DISCOVER SOME POSSIBLE LOCATIONS
- CLUSTERS COMPARISON AND CONCLUSION

METHODOLOGY

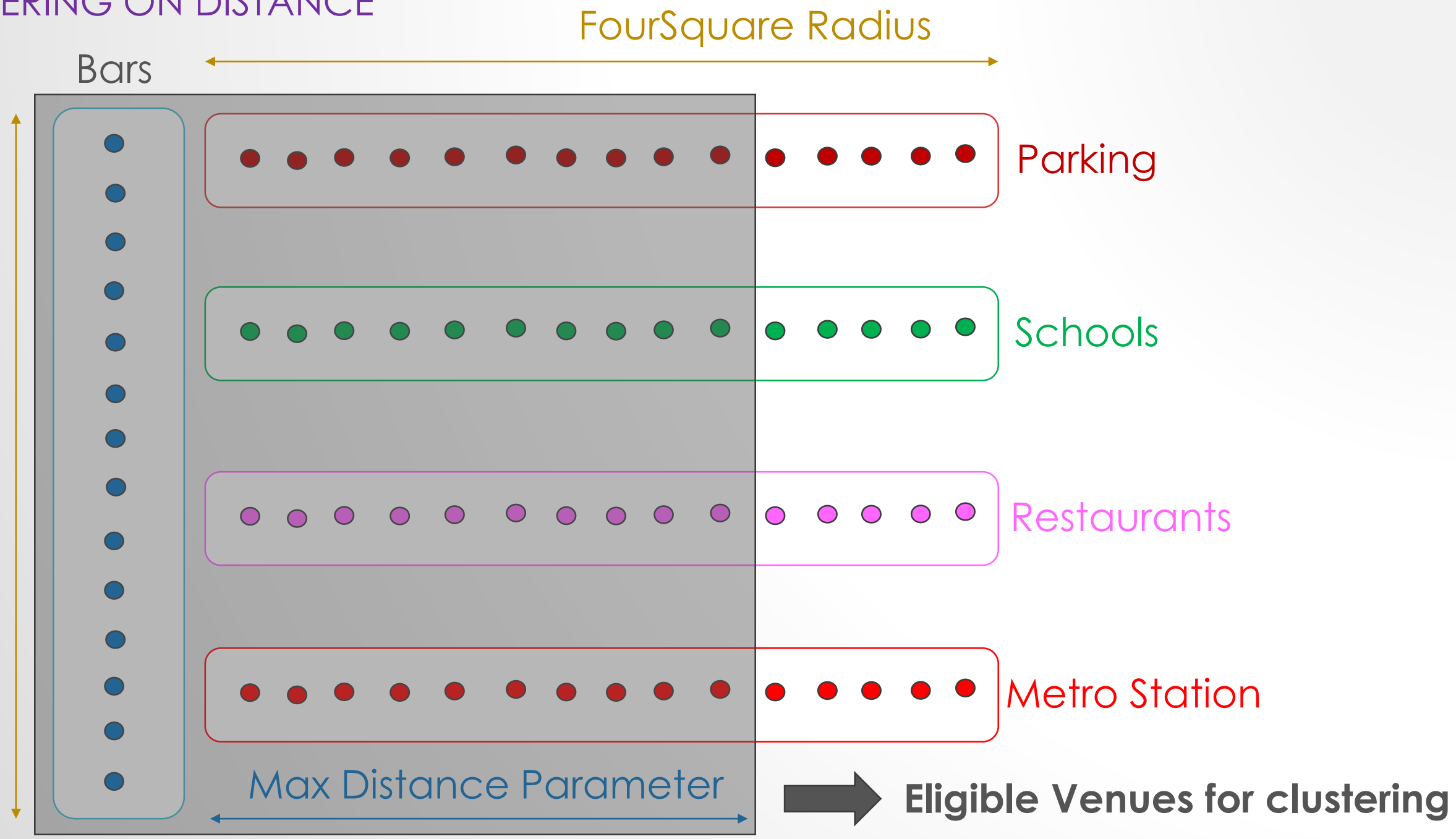
- DATA ACQUISITION AND DATA WRANGLING (PANDAS)
- DISTANCE CALCULATION (GEOPANDAS)
- CLUSTERING ALGORITHM (SKLEARN.CLUSTER.DBSCAN)
- DATA VIZUALISATION (FOLIUM/MATPLOTLIB)

GET VENUES FROM FOURSQUARE



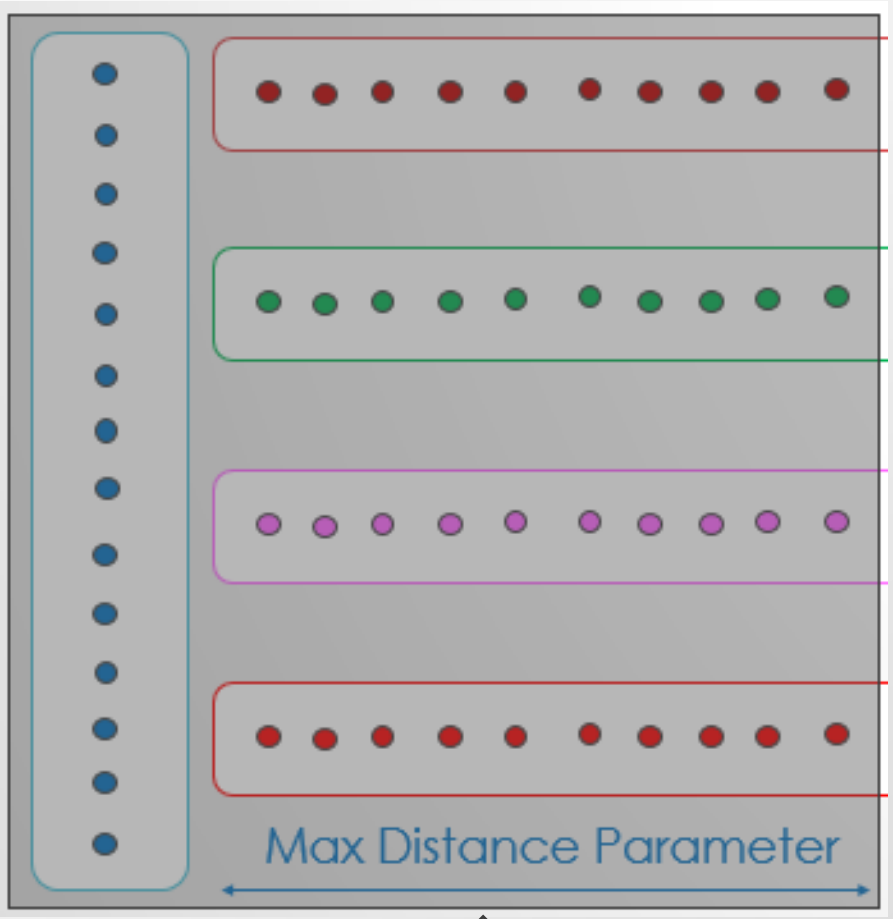


FILTERING ON DISTANCE



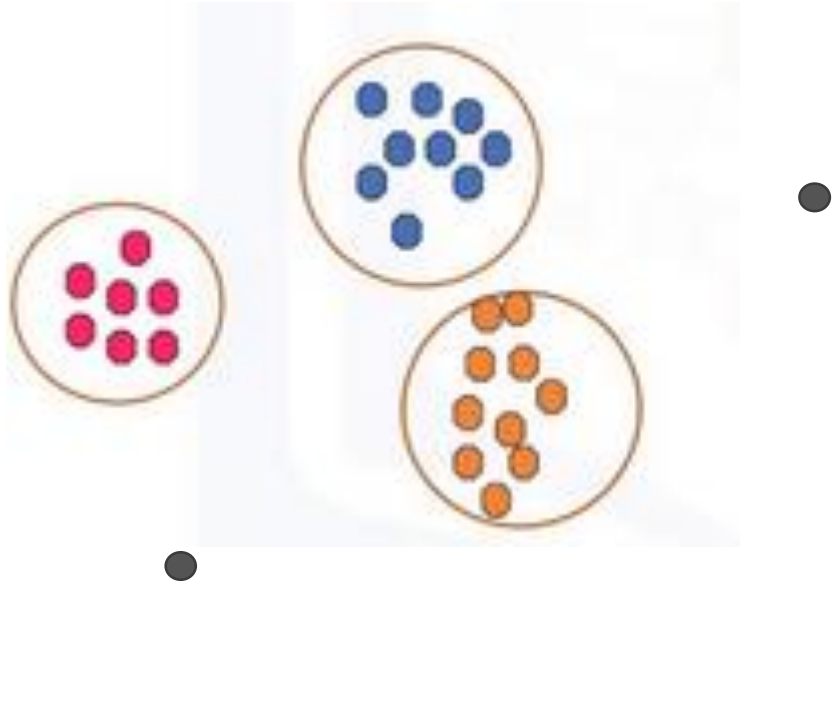
CLUSTERING PHASE : DBSCAN

ALL « BARS » Venues



Other Venues <= MAX DISTANCE from "BARS"

- Detection of Outliers
- Suitable for Spatial Data



CLUSTER ANALYSIS/COMPARISON

CONCLUSION

- THIS PROCESS CAN BE APPLIED IN OTHER SIMILAR SITUATIONS
- THE TUNING CAN BE ADAPTED FOR OTHER SITUATIONS
- IT IS POSSIBLE, DEPENDING ON THE CASES STUDIED, TO CROSS-CHECK WITH OTHER DATA SETS (CRIME STATS, CENSUS, ...)
- OTHER DETAILS WILL BE SPECIFIED IN THE FINAL REPORT,
- ONLY THE APPROACH TO THE PROBLEM IS DISCUSSED HERE

Thanks a lot for your attention !