RECOMMEND CITY FOR A RESIDENTIAL LIVING

M.P. JANANEE

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COMFORTABLE CITY FOR A RESIDENTIAL LIVING

- Identifying a new place or settling in a city seems to be pro-longed, tedious and tough job to even think about.
- Thoughts that crop up from our mind to find a living:
  - Can I go for a walk to nearby place?
  - Can my child ride a bicycle to his nearby school on his own?
  - Can I consult a nearby doctor when I am unwell as I cannot travel long?
  - Can I go for a jogging and buy kid's favorite toffees during my return?
  - And more….

AVAILABLE OPTIONS AND WHAT IS THIS CASE STUDY IS ABOUT??

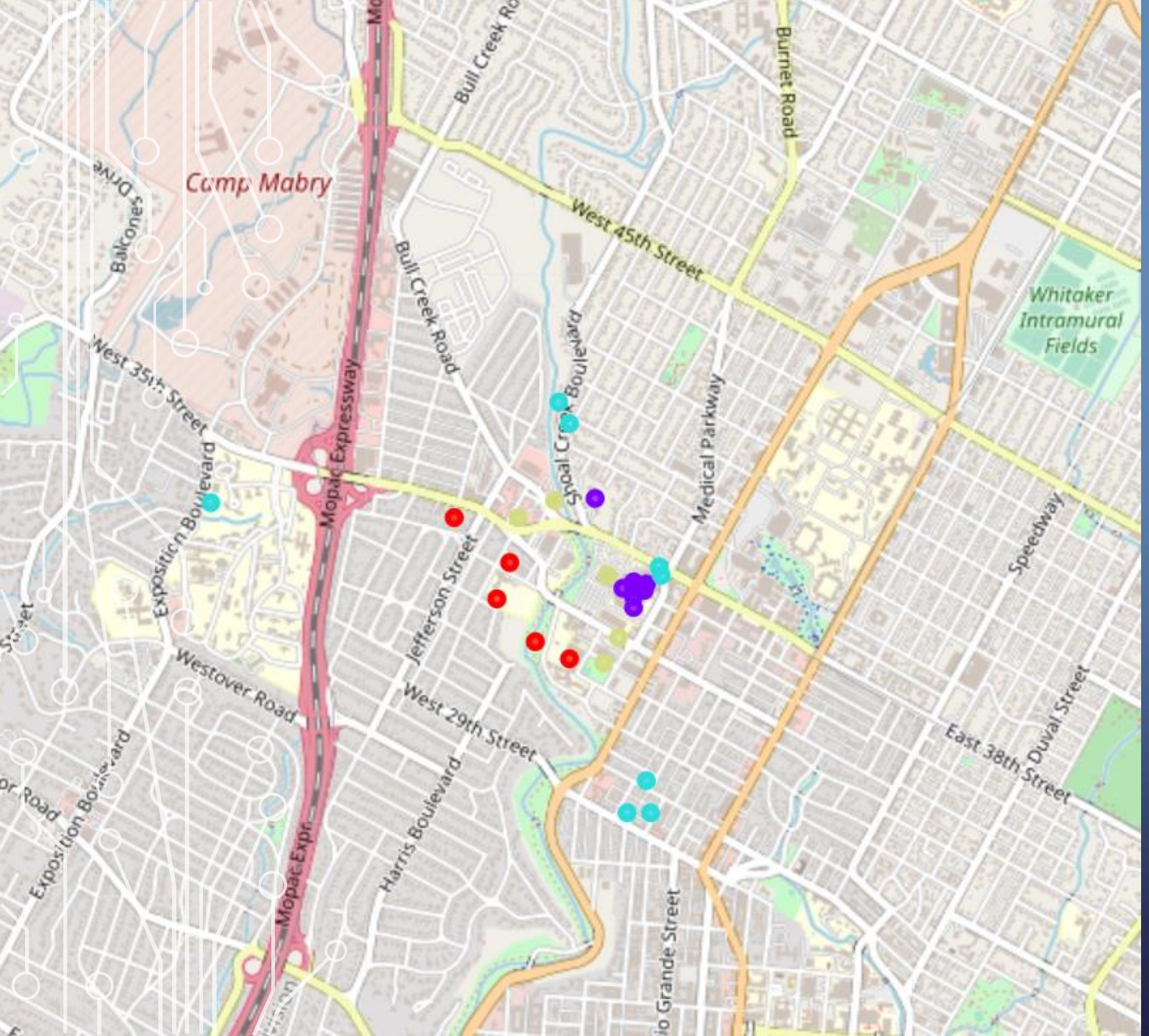
- When searched for condos in internet sites, many provide detailed info about the apartment, photos both interior and exterior of residential buildings, condos with plot maps, cost, amenities.
- Is it the only info required for choosing a city to settle down??
- This case study aims to help the unanswered and unexplained info about the nearby venues of user's choice.
- This case study recommends better city based on certain categories of venues located near the center.

DATA SOURCES

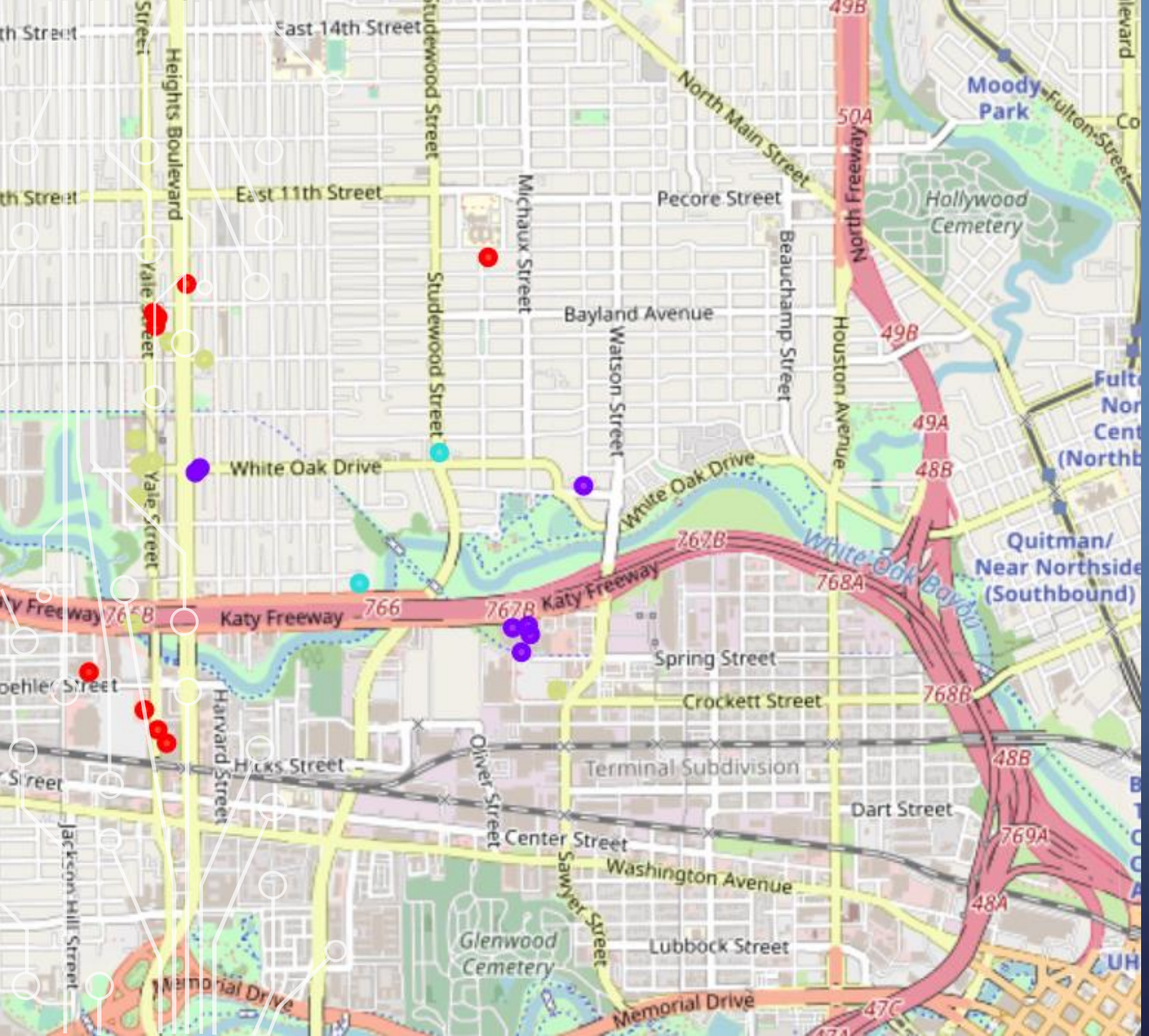
- Example Cities compared in this case study is “Austin” and “Houston” in Texas.
- Location of the city (latitude, longitude) is known from the wiki links.
- Venues fetched from “Foursquare” site for a specific city within a radius of 1000m.
- Categories chosen for exploration is “Schools”, “Hospitals” and “Residential Building /Condos”.
- Distance of each venue from the center is also fetched from same category request using foursquare site.
- Folium Maps are used for visualization.

METHODOLOGY

- The categories are One-Hot Encoded.
- K-Means Cluster mechanism is used to find similar patterns within a cluster
- Clusters of size 3 and 4 is tested.
- Cluster size of 4 is finally chosen to derive the results as it provided a expanded info about the venues across the clusters.
- Folium Maps are used to display the cluster of venues within the city clearly.



CLUSTERING MODEL FOR "AUSTIN"



CLUSTERING MODEL FOR "HOUSTON"

DERIVED RESULTS FROM MAPS

- Hospitals and Schools are much lesser in Houston and residences are more concentrated.
- Although hospitals are more in Austin, hospital related areas and schools are widely spread across the clusters.
- Residences are sparsely located around 300m and starts to increase at a distance of 900m.
- Finally based on the clusters and maps, "Austin" can be suggested as the chosen city for a residential living for a family.

CONCLUSION

- Used Clustering Model to recommend a better city for residential living
- Users who can use this model:
  - Building Contractors to know residence density
  - Social Worker/Government to know basic amenities available in nearby areas
  - New Investors to know about the existing nearby venues in the city

THANK YOU