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Coursera Capstone Project

Battle of Neighborhoods

Opening a New bakery in Coimbatore, India

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Business Problem

Coimbatore is a city in southern India and is famous for varieties of bakeries. Visiting a bakery is one of the leisures for the locals & youngsters.

Business Question: If a young entrepreneur is looking to open a new bakery in Coimbatore, which location would you recommend?

Goal : To analyze the neighborhoods of Coimbatore and propose a best location to open a new bakery

DATA

- **Required Data**

- ☐ List of neighborhoods in Coimbatore
- ☐ Latitude and Longitude co-ordinates of neighborhoods
- ☐ Venue data, in particular Bakeries.

- **Data Source**

- ☐ Wikipage of neighborhoods in Coimbatore
https://en.wikipedia.org/wiki/Category:Neighbourhoods_in_Coimbatore
- ☐ Geocoder package to get latitude and longitude
- ☐ Foursquare API to get venue data



PROCESS

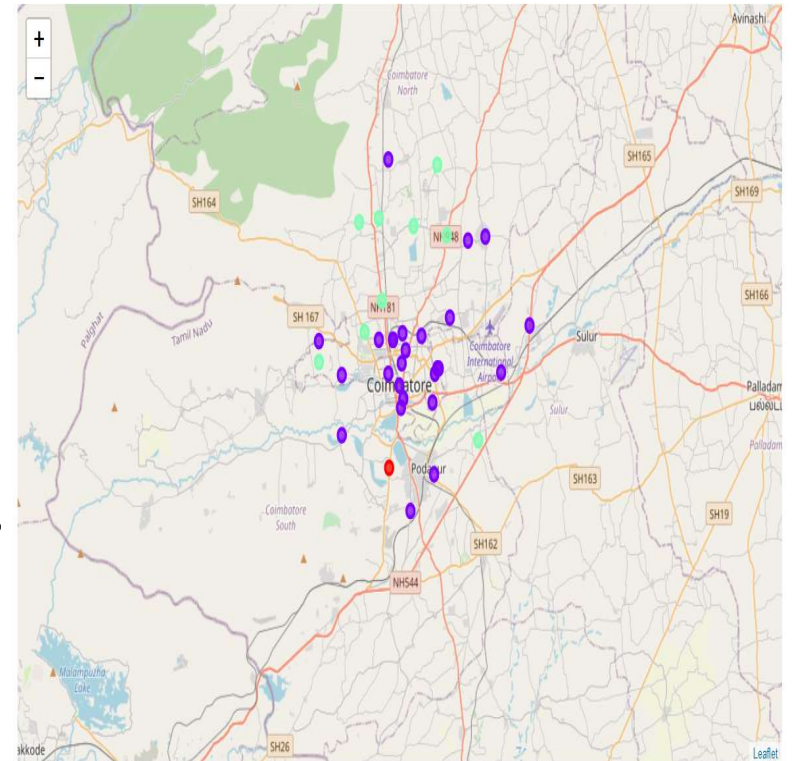
- ❑ Web scraping of Wikipedia page using BeautifulSoup
- ❑ Get latitude and longitude coordinates using Geocoder
- ❑ Get venue data using Foursquare API.
- ❑ Get mean of the frequency of occurrence of each venue per neighborhood
- ❑ Filter venue category by Bakeries
- ❑ Perform k-means clustering ($K=3$)
- ❑ Use Folium to visualize the clusters in map

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Cluster 0: Low to no bakeries

Cluster 1: high concentration of Bakeries

Cluster 2: Medium concentration of Bakeries



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DISCUSSION

- ❑ Most bakeries are concentrated in city center and also in outskirts
- ❑ Highest concentration in Cluster 1 , followed by Cluster 2
- ❑ Cluster 0 has lowest concentration of bakeries and has less competition.

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RECOMMENDATIONS

- ☐ Open new bakery in Cluster 0
- ☐ Cluster 2 can also be considered as an option, if the competition can be handled
- ☐ Cluster 1 to be avoided, as the competition is very high and likely to fail



Conclusion

- ❑ Neighborhoods in Cluster 0 is a good option to open a new bakery.