COURSERA CAPSTONE

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Opening a New Shopping Mall in Kuala Lumpur, Malaysia

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BUSINESS PROBLEM

- Location of the shopping mall is one of the most important decisions that will determine whether the mall will be a success or a failure

- Objective: To analyze and select the best locations in the city of Kuala Lumpur, Malaysia to open a new shopping mall

- This project is timely as the city is currently suffering from oversupply of shopping malls

- Business question

- ✓ In the city of Kuala Lumpur, Malaysia, if a property developer is looking to open a new shopping mall, where would you recommend that they open it?

DATA

- Data required

✓ List of neighbourhoods in Kuala Lumpur

✓ Latitude and longitude coordinates of the neighbourhoods

✓ Venue data, particularly data related to shopping malls

- Sources of data

✓ Wikipedia page for neighbourhoods (https://en.wikipedia.org/wiki/Category:Suburbs_in_Kuala_Lumpur)

  Geocoder package for latitude and longitude coordinates

✓ Foursquare API for venue data

METHODOLOGY

- Web scraping Wikipedia page for neighborhood's list

- Get latitude and longitude coordinates using Geocoder

- Use Foursquare API to get venue data

- Group data by neighborhoods and taking the mean of the frequency of occurrence of each venue category

- Filter venue category by Shopping Mall

- Perform clustering on the data by using k-means clustering

- Visualize the clusters in a map using Folium

RESULTS

Categorized the neighborhood's into 3 clusters :

✓ Cluster 0: Neighborhood's with moderate number of shopping malls.

✓ Cluster 1: Neighborhood's with low number to no existence of shopping malls.

✓ Cluster 2: Neighborhood's with high concentration of shopping malls.
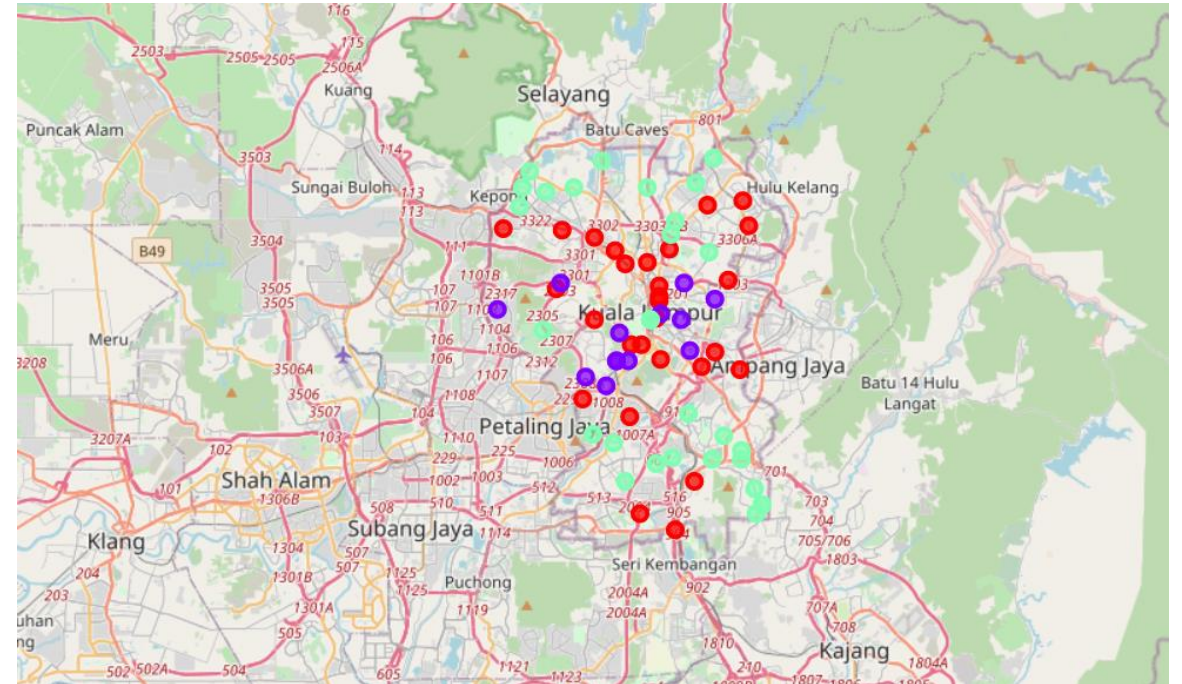
DISCUSSION

- Most of the shopping malls are concentrated in the central area of the city.

- Highest number in cluster 2 and moderate number in cluster 0 .

- Cluster 1 has very low number to no shopping mall in the neighborhood's.

- Oversupply of shopping malls mostly happened in the central area of the city, with the suburb area still have very few shopping malls.

RECOMMENDATIONS

- Open new shopping malls in neighborhood's in cluster 1 with little to no competition.

- Can also open in neighborhood's in cluster 0 with moderate competition if have unique selling propositions to stand out from the competition.

- Avoid neighborhood's in cluster 2, already high concentration of shopping malls and intense competition.

CONCLUSION

- Answer to business question: The neighborhood's in cluster 1 are the most preferred locations to open a new shopping mall.

- Findings of this project will help the relevant stakeholders to capitalize on the opportunities on high potential locations while avoiding overcrowded areas in their decisions to open a new shopping mall.

THANKYOU