

# OPENNING A NEW SHOPPING MALL

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# BUSINESS PROBLEM

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- 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

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- Data required
  - List of neighbourhoods in Kuala Lumpur
  - Latitude and longitude coordinates of the neighbourhoods
  - Venue data, particularly data related to shopping malls

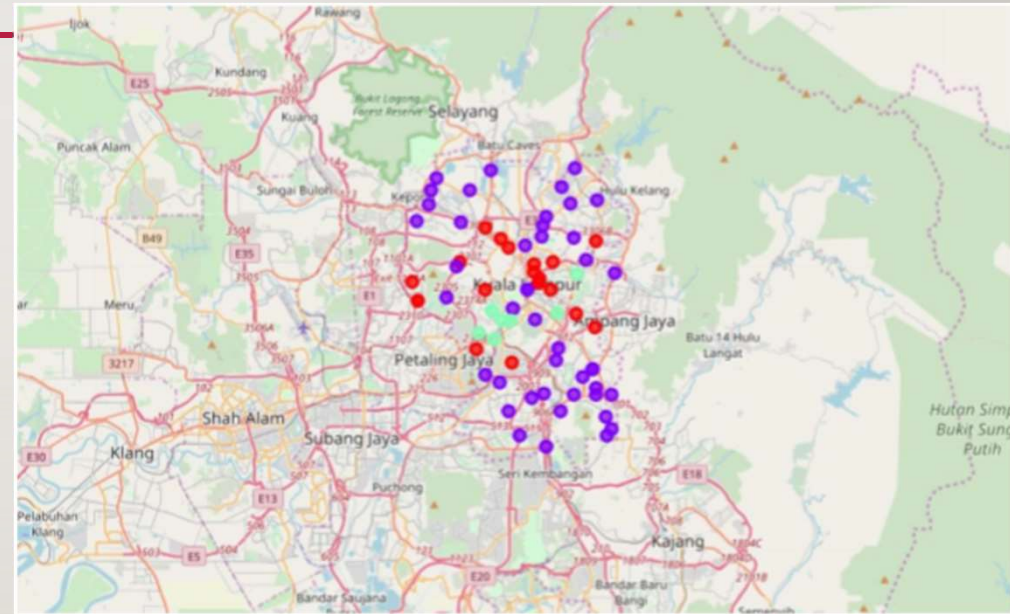
# METHODOLOGY

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- • Web scraping Wikipedia page for neighbourhoods list
- • Get latitude and longitude coordinates using Geocoder
- • Use Foursquare API to get venue data
- • Group data by neighbourhood 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 neighbourhoods into 3 clusters :
- Cluster 0: Neighbourhoods with moderate number of shopping malls
- Cluster 1: Neighbourhoods with low number to no existence of shopping malls
- Cluster 2: Neighbourhoods with high concentration of shopping malls



# DISCUSSION

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



# CONCLUSION

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- Answer to business question: The neighbourhoods in cluster I 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