Feasibility Analysis: Opening a Shopping mall in Kuala Lumpur

Introduction

- One of the most popular in the world for shopping
- Offers a variety of goods
- Can potentially house more businesses in malls
- General increase in income
- Concentrated on a specific zone
- Finding out potential hotspots

List of Data

- List of suburbs in Kuala Lumpur
- Latitude and Longitude of those suburbs
- Data of the venues

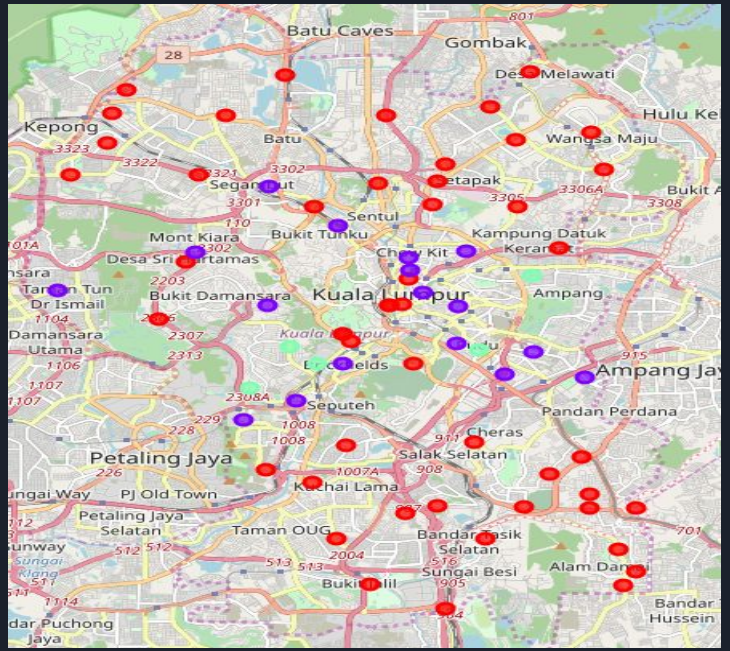
Methodology

- 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
- 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 based on how frequently “Shopping Mall” occurred:

- Cluster 0: Neighbourhoods with a low number to no existence of shopping malls (Red)
- Cluster 1: Neighbourhoods with a moderate number of shopping malls (Purple)
- Cluster 2: Neighbourhoods with a high concentration of shopping malls (Mint Green)



Discussion

- Most of the shopping malls are concentrated in the central area of the city
- Highest number in cluster 2
- Moderate number in cluster 1
- Lowest number in cluster 0
- Suburb area have few malls while central area is flooded with malls

Conclusion

- Opening malls in cluster 0 areas are feasible due to lack of competition
- Opening malls in cluster 1 areas are feasible due to low to moderate competition
- Opening malls in cluster 2 areas are not feasible due to extreme competition
- Among cluster 0 and cluster 1, building malls in cluster 0 is more feasible

Thank You!