Capstone Project - The Battle of Neighthourhoods

London

Background

- In any publicly available listing by positioning global cities with a range of criteria, London is normally able to secure a top place. It is a truly global city by any measurements.

- Every year, London attracts thousands of tourists to exploring its outstanding cultures, international students to advance their study, and a range of professions to look for new career chapter. London is so attractive in every aspect, so does its property market.

- London's property is very dynamic and complicated. It takes huge effort to investigate the market and its nearly impossible to find the right one without exploring & comparing neighbourhoods. To enable that, it is therefore, a very good idea to carry out the initial screening on rough locations based on a set of pre-defined conditions.

- This report is to help those people want to settle in London by providing a comparison across London Boroughs with the consideration of transport accessibility, crime records, and their neighbourhoods.

Problem Statement

- London is organised by Boroughs. For each Borough, due to a lots of reasons, there are significant differences on a variety of factors that are impacting the overall life quality.

- Here, we are selecting four factors for this project: Transport Accessibility Level, Crime Record and nearest venues. We would like to split London Boroughs into a few categories to showcase their similarities so that people can narrow their preferred options based on different criteria.
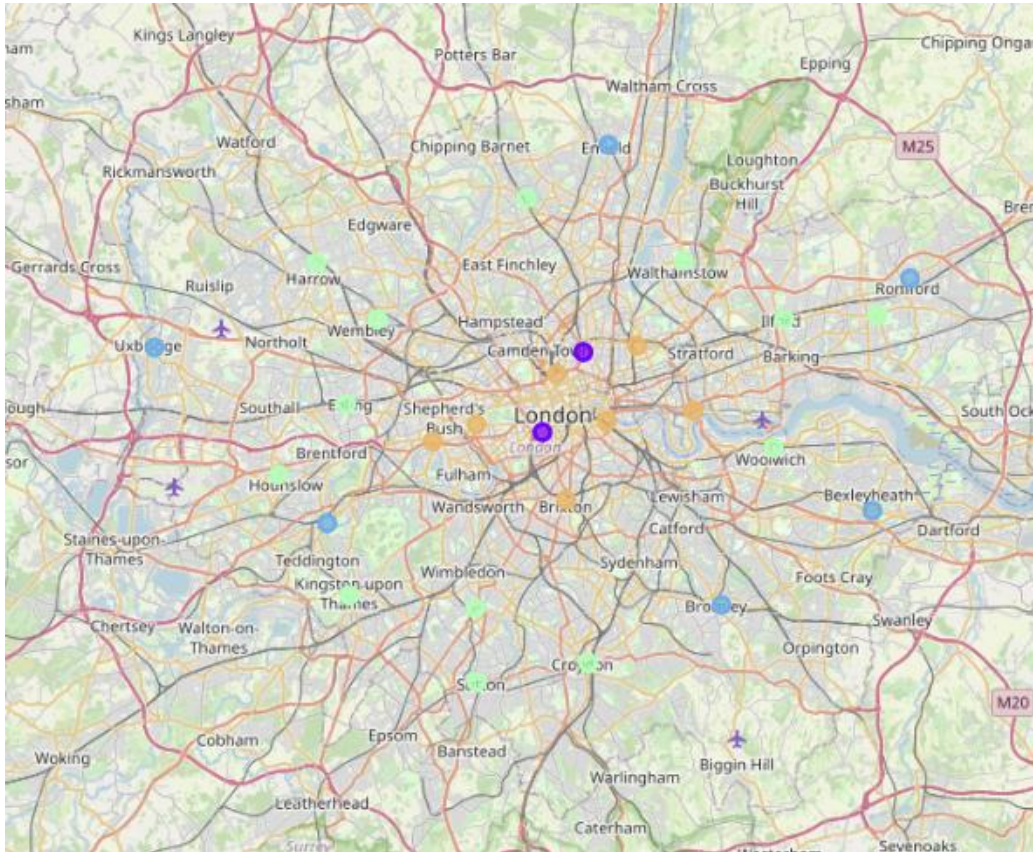
Methodology

- K-mean cluster will be adopted to segment and clustering London Boroughs.
- **Step by Step:**
- 1), download raw data from sources or via API
- 2), Examine the data to understand its property and explore its neighbourhoods
- 3), Merge various data into one data frame
- 4), Perform K-mean cluster analysis
- 5), Exam each cluster to define the category
- 6), Discuss and compare category
- 7), make recommendations

Data Sources:

- a), Wikipedia: List of Boroughs and their coordinates: https://en.wikipedia.org/wiki/List_of_London_boroughs

- b), Public Transport Accessibility Levels by Boroughs: https://data.london.gov.uk/dataset/public-transport-accessibility-levels

- c), London Recorded Crime Data within last 24 months by Boroughs: https://data.london.gov.uk/dataset/recorded_crime_summary

- d), Nearest venues data retrieved per Boroughs from Foursquare API

Results

Clustering results

London Zones