

The Battle of Neighbourhoods

A. Introduction / Business Problem:

A.1. Description of Problem:

London is one of the most multicultural cities in the world. It is a melting pot of cultures, where one can taste the best of the world cuisine. It is a major centre for banking and finance, retailing, world trade, transportation, tourism, real estate, media, advertising, legal services, accountancy, insurance, theatre, fashion, and the arts. Fusing gritty, historic pomp with shimmering modernity, world-class culture, fashion-forward shopping, the UK's capital has it all and there's something for everyone. The vibrancy of the city extends across all 32 of its boroughs, all of which are home to a plethora of unique neighbourhoods.

The decision to move to a new city or a new country altogether, is a harrowing one. But after having decided to move to London, the next challenge one faces is to decide where to live in London. If one looks at the map of London, they will find a haphazard cluster of neighbourhoods and villages, each with their own distinct features and identity. Some of London's best neighbourhoods are usually established on the typical tourist trail, while others are constantly evolving, taking turns to emerge as the new cool hotspot. The following questions then arise in our mind,

- Which neighbourhood is right for us?
- Which part of the city has the best parks and playgrounds?
- Which schools fall in the neighbourhood?
- What area has the best craft beer scene or all-night eateries?
- Where can one find the hippest bookstores or outdoor yoga?

And at the top of all these doubts, the most intriguing questions anyone would face are,

- What is the crime rate in the area?
- Is it a secure neighbourhood?
- Is it safe to venture out in the night?

All these questions and more plague our mind and then the quest to find the answers begins.

A.2. Discussion on the Background:

As a part of this assignment, I am going to try to give an insight into what some of the best London neighbourhoods can offer its residents.

To help uncover the best that London has to offer, this project aims to do the following,

- Identify the safest boroughs and wards in London based on the latest crime data available on the London Datastore provided by the Metropolitan Police Service
- Later, the London Postcodes dataset, which is downloaded from Doogal.co.uk, is used to find the Latitude & the Longitude coordinates of the preferred postcodes in those safe boroughs & wards
- The geographical coordinates obtained are then used to highlight the neighbourhoods on the Map of London
- These coordinates are also used to explore the neighbourhoods, to find the 10 most common venues in the vicinity of 500 metres from those neighbourhoods
- And finally, a Machine Learning algorithm (K-Means Clustering) will be used to segregate these neighbourhoods based on the common venues

A.3. Interested Parties:

The objective of this project is to identify and recommend the best neighbourhoods in London to **anyone who wants to relocate to London**. The interested parties could be anyone from the below mentioned list,

- Young couples
- Families with children
- Students
- Executives, etc.