

# 1. Introduction

## 1.1 Background

The average Londoners moves several times in his life. This leads us to wonder if people move until they find a place to settle where they are happy, or do they change our housing needs over time, which leads us to change cities. We can also ask ourselves if we move too often to a new area without doing the corresponding analysis, which ends in the need for a new move.

To minimize the possibility of error, it is convenient to carry out a proper investigation when planning our next move. Security is often a top concern when moving to a new city or neighborhood. If you don't feel safe in your own home, you won't be able to enjoy living there, so we recommend keeping this variable in mind.

## 1.2 The Problem

The London crime statistics database found at Kaggle has the record of crimes that occurred in each London county from 2008 to 2016 (although the information is old it can give us an idea of current crime).

This project aims to select the safest district in London based on total crime, explore neighborhoods in that district to find the 10 most common places in each neighborhood, and finally group neighborhoods using k-mean grouping.

## 1.3 Interest

People who are considering moving to London will be interested in getting to know the safest districts of London.

# 2. Data Acquisition and Cleaning

## 2.1 Data Acquisition

The data acquired for this project is a combination of data from three sources.

1. London crime data (<https://www.kaggle.com/jboysen/london-crime>) that shows the crime per borough in London. The dataset contains the following columns:

- **Isoa\_code**: Code for Lower Super Output Area in Greater London.
- **borough**: Common name for London borough.
- **major\_category**: High level categorization of crime
- **minor\_category**: Low level categorization of crime
- **value**: monthly reported count of categorical crime in given borough
- **year**: Year of reported counts, 2008-2016
- **month**: Month of reported counts, 1-12

2. The list of London boroughs ([https://en.wikipedia.org/wiki/List\\_of\\_London\\_boroughs](https://en.wikipedia.org/wiki/List_of_London_boroughs)). This page contains additional information about the boroughs, the following are the columns:

- **Borough**: The names of the 33 London boroughs.