

Battle of the Neighborhoods

Finding the right move in London

1. Introduction

1.1. Background

Each year approximately 200,000 people move from other areas of the UK into London and another 200,000 move from abroad into London. This means nearly half a million people move to London every year. Moving house is often an exceptionally long and complicated process which can be incredibly stressful. Therefore, it is in the best interest of both the mover and the estate agents to ensure that the move is as smooth as possible. In order to streamline this process ideally everything the mover wants to know about a potential move location can be found all in the same place. One hugely important variable to take into account when moving house is the number of and quality of amenities near the potential move location. It is advantageous for movers to see all of these amenities prior to making a decision on the move.

1.2. The Problem

When moving to an area the mover may want to know what kind of venues are near the area they will be moving to. However, on most of the popular estate agent websites this information is not always available. It is common for estate agents to show nearby schools but not coffee shops, restaurants, yoga classes etc. What if the mover wants to know how many Italian restaurants are nearby or how many bookstores there are within 500m? Currently they would have to scroll through the internet trying to find this information for themselves. Wouldn't it be convenient if all of this information were in one place?

1.3. Interest

This feature would be of interest to movers in the process of helping them to find an ideal location to move to. This project aims to cluster areas of London depending on the venues in each area and creating a score for each borough to find which borough is the most ideal.

2. Data acquisition and cleaning

2.1. Data acquisition

The data for the project was collected from a variety of sources:

- Data containing London boroughs with their latitude and longitudes scraped from wiki page (https://en.wikipedia.org/wiki/List_of_London_boroughs)
- Data containing average rent price for each London borough (<https://data.london.gov.uk/dataset/average-private-rents-borough>)
- Foursquare location data will be used to access details for all venues in London.

2.2. Data Cleaning

Data for the list of London boroughs and average rent prices per borough were cleaned removing unwanted columns and formatting each column and then combined into one table. Then a rent score was created using min-max scaling where each borough was given a score between 0 and 1 where 1 is the cheapest and 0 is most expensive. This data frame is shown below in Figure 1. This Data along with Foursquare location data will be used to find the best borough in London to move too based on rent prices and number and quality of nearby venues.

Figure 1. Showing the cleaned data frame before analysis.

	Borough	Population	Latitude	Longitude	Avg. Price	Rent_score
0	Barking and Dagenham	212906	51.5607	0.1557	1192	0.949153
1	Barnet	395896	51.6252	0.1517	1548	0.781544
2	Bexley	248287	51.4549	0.1505	1084	1.000000
3	Brent	329771	51.5588	0.2817	1578	0.767420
4	Bromley	332336	51.4039	0.0198	1318	0.889831