Analysis of the London districts (common venues, average house prices)

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1. Introduction

1.1. Background

London is considered to be one of the world's most important global cities and has been termed the world's most powerful, most desirable, most influential, most visited, most expensive, innovative, sustainable, most investment friendly, most popular for work, and the most vegetarian-friendly city in the world. London exerts a considerable impact upon the arts, commerce, education, entertainment, fashion, finance, healthcare, media, professional services, research and development, tourism and transportation. London ranks 26 out of 300 major cities for economic performance. It is one of the largest financial centres and has either the fifth or sixth largest metropolitan area GDP. ¹

London divided into 32 local authority districts that make up Greater London (London boroughs) and City of London. The London boroughs were all created at the same time as Greater London on 1 April 1965 by the London Government Act 1963 and are a type of local government district. Twelve were designated as Inner London boroughs and twenty as Outer Londonboroughs.

The London boroughs have populations of around 150,000 to 300,000. Inner London boroughs tend to be smaller, in both population and area, and more densely populated than Outer London boroughs. The London boroughs were created by combining groups of former local government units.²

1.2. Problem

The London boroughs differ from each other in a variety of parameters. For different purposes it is necessary to select parameters to compare London boroughs.

This project aims to identity differences of the London boroughs using information about common venues and average property prices.

1.3. Interest

If businessman is planning to open an office in London he would be interested in information about the districts infrastructure (venues) and the average house prices.

¹ https://en.wikipedia.org/wiki/London

² https://en.wikipedia.org/wiki/London boroughs

2. Data

Data were used to solve the problem:

Postcodes by administrative area³.

The csv-file contains information about coordinates of the all UK areas. It is necessary to filter the data for areas of London.

Average house prices⁴

The csv-file contains information about average house prices of the all UK areas from period 1968-2019. It is necessary to filter the data for areas of London and last period (2019-04-01). After that, for further analysis it is necessary to merge the data (coordinates and average prices).

Forsquare API⁵

It is necessary to get the most common venues of given Borough of London.

Country geojson file⁶

It is necessary to create choropleth map with level of average prices

³ https://www.doogal.co.uk/AdministrativeAreas.php

⁴ http://publicdata.landregistry.gov.uk/market-trend-data/house-price-index-data/Average-prices-2019-04.csv

⁵ https://api.foursquare.com/v2/venues/explore?&client_id={}&client_secret={}&v={}&ll={},{}&radius={}&limit={}

⁶ https://github.com/radoi90/housequest-data/raw/master/london_boroughs.geojson