Capstone Project - The Battle of t of the Neighborhoods

Applied Data Science Capstone by IBM/Coursera

2020

Introduction & Business Problem :

Problem Background:

This project aims to select the safest borough in London based on the **total crimes**, explore the **neighborhoods** of that borough to find the **10 most common venues** in each neighborhood and finally cluster the neighborhoods using **k-mean clustering**.

This report will be targeted to people who are looking to **relocate to London**. In order to finalize a neighborhood to hunt for an apartment, **safety** is considered as a top concern when moving to a new place. If you don't feel safe in your own home, you're not going to be able to enjoy living there. The **crime statistics** will provide an insight into this issue.

We will focus on the safest borough and explore its neighborhoods and the 10 most common venues in each neighborhood so that the best neighborhood suited to an individual's needs can be selected.

Problem Description:

The crime statistics dataset of London found on Kaggle has crimes in each Boroughs of London from 2008 to 2016. The year 2016 being the latest we will be considering the data of that year which is actually old information as of now. The crime rates in each borough may have changed over time. This project aims to select the safest borough in London based on the total crimes, explore the neighborhoods of that borough to find the 10 most common venues in each neighborhood and finally cluster the neighborhoods using k-mean clustering.

Target Audience:

The aim of this project is to help people who want to relocate to the safest borough in London, expats can choose the neighborhoods to which they want to relocate based on the most common venues in it. For example, if a person is looking for a neighborhood with good connectivity and public transportation, we can see that Clusters 3 and 4 have Train stations and Bus stops as the most common venues. If a person is looking for a neighborhood with stores and restaurants in a close proximity then the neighborhoods in the first cluster is suitable. For a family I feel that the neighborhoods in Cluster 4 are more suitable dues to the common venues in that cluster, these neighborhoods have common venues such as Parks, Gym/Fitness centers, Bus Stops, Restaurants, Electronics Stores and Soccer fields which is ideal for a family. The choices of neighborhoods may vary from person to person.

Success Criteria:

The success criteria of the project will be a good recommendation of borough/Neighborhood choice to relocate to a safe place in London.