Coursera Capstone Project for IBM Data Science Professional Qualification

By Meriel O'Conor, November 2019

Question: If you move from LA to Nashville, which neighborhood might you want to live in?

Introduction/Business Problem

There are lots of people relocating from LA to Nashville. Some common themes for moving seem to be for more affordable housing, to escape the traffic and enjoy the vibrant music scene.

When you first arrive it can be hard to work out which area to live in. This project aims to identify the most closely paralleled neighborhoods between LA and Nashville in order to suggest where new people might want to look for accommodation. Using Foursquare data about which businesses and amenities are in each neighborhood I hope to find areas which have a similar mixture. Then adding house price data to see how affordable the equivalent neighborhood is.

The target audience for this piece of research would be a journalist/blogger wanting to give people information to help them make choices. The end user would be someone moving from LA to Nashville.

Data

Given our problem we need data on neighborhoods, businesses in each neighborhood and house price data.

The data sources for this project were:

- Foursquare data, for businesses and their type and location https://foursquare.com/, accessed 11/15/19. An example of how it will be used is to extract venue information from each neighborhood eg. I create a table of all the venues within 2.5km of my area.
- Zillow data on house prices, to gauge affluence of the neighborhoods https://www.zillow.com/research/data/, accessed 11/15/19. This is used for example to create a bar chart of neighborhood by median house price.
- The names of neighborhoods in LA were scraped from http://www.laalmanac.com/communications/cm02a90001-90899.php , accessed 11/15/19.
- The names of Nashville neighborhoods were extracted from https://nestinginnashville.com/buying-a-home-in-nashville/zip-code-map/ , accessed 11/15/19

How each data source was used is included within the methodology and is visible within the notebook.