

# **The Battle of Neighborhoods**

## **(IBM Data Science Professional Certificate Capstone)**

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### **1. Introduction**

#### **1.1 Background**

Growing cities suppose challenges that many disciplines have to overcome. Construction space, type of land use, mobility, accessibility, streets and highways with enough space for transit, supermarkets and stores to supply basic necessities.

Every time people moves from other localities to their nearest city for many reasons, mainly being for a higher lifestyle, a higher paying job, access to basic services, supermarkets and amenities. When people consider moving to a city they need to know what is the best place to move, according to their profile.

#### **1.2 Problem**

Workers from medium and big companies are often required to relocate in another city and sometimes with no much time in advance in order to make a proper research to know what is the best place to live in the new city. The lack of time to make a research about what is the best place to live can lead to have an unpleasant stay while living in this new city.

An analysis is performed for the case of the company worker Luis, who is moving from Monterrey, Mexico to Austin, Texas due to his company requirements. We need to identify what are the current characteristics of the place were Luis lives, and to compare if there is any similar place in Austin, Texas.

### **2. Data acquisition and cleaning**

#### **2.1 Data sources**

The description of the data to be used in this project is as follows:

- Foursquare API: Provides location information of nearby venues given an address. The Foursquare API will be used to extract nearby places for every neighborhood in Monterrey and in Austin. The neighborhood segmentation will take place using this information to extract particular characteristics of each neighborhood.
- List of Monterrey Postal Codes (1): Monterrey postal codes are used to extract the main database that are used for this project.
- List of Austin Postal Codes (2): Austin postal codes will be used to extract the main database that will be used for this project.