# Finding an Optimal Location for a Fitness Center in Dallas

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#### 1. Introduction

### 1.1 Purpose of analysis

Dallas is one of the major cities in Texas and stakeholders are often interested in all kinds of businesses in the City area. I used to live in Dallas, and I found there were not enough gyms or fitness centers in the area. Therefore, this would be a great city for stakeholders who want to open up a fitness center. In the project, I will try to help stakeholder find a perfect location to open up a fitness center in the city of Dallas.

## 2. Data acquisition and cleaning

## 2.1 Data sources

The data of Dallas neighborhoods is available at: <a href="http://peopleorganizingplace.com/know/">http://peopleorganizingplace.com/know/</a>. However, the data format is geojson, which needs to be parsed before using. Foursquare will be used to obtain venue information of all the neighborhoods in the city of Dallas.

#### 2.2 Data cleaning

The data obtained contains neighborhood ids, neighborhood names, neighborhood description and geometry coordinates of the neighborhood boundaries, which is not convenient for venue exploration using the Foursquare data. Therefore, the mean of latitudes and longitudes will be used as the coordinates of the neighborhoods.