## **Introduction / Business Problem**

New York City was home to nearly 8.5 million people in 2014, accounting for over 40% of the population of New York State and a slightly lower percentage of the New York metropolitan area, home to approximately 23.6 million. Over the last decade the city has been growing faster than the region. As New York is also New York City has been described as the cultural, financial and media capital of the world People now a days are very conscious of their health, hence there is a greater need of places where people can make themselves fit at whatever times of their suiting.

The aim of this project is to discover where is the optimal place to build a gym in the New York City. To answer this question we will analyse which districts have a gym and if there are any similarities between them. We will also see which districts have the least amount of gyms.

The audience of this report should be people interested in starting a new gym in the New York City.

## Data

For this project we need the following data:

New York City data that contains list Boroughs, Neighborhoods along with their latitude and longitude.

Data source: https://cocl.us/new\_york\_dataset

Description: This data set contains the required information. And we will use this data set to explore various neighbourhoods of new york city.

Data source: Fousquare API

Description: By using this api we will get all the venues in each neighbourhood. We can filter these venues to get only gym/fitness-center.

GeoSpace data

Data source: Using geopy library to get the location data

Description: By using this geo space data we will get the New york Borough boundaries that will help us visualize choropleth map.