**Capstone Project - The Battle of Neighborhoods**

The City of New York, usually referred to as either New York City (NYC) or simply New York (NY), is the most populous city in the United States. With an estimated 2018 population of 8,398,748 distributed over a land area of about 302.6 square miles (784 km2), New York is also the most densely populated major city in the United States.

Located at the southern tip of the state of New York, the city is the center of the New York metropolitan area, the largest metropolitan area in the world by urban landmass and one of the world's most populous megacities, with an estimated 19,979,477 people in its 2018 Metropolitan Statistical Area and 22,679,948 residents in its Combined Statistical Area. A global power city, New York City has been described as the cultural, financial, and media capital of the world, and exerts a significant impact upon commerce, entertainment, research, technology, education, politics, tourism, art, fashion, and sports.

Situated on one of the world's largest natural harbors, New York City consists of five boroughs, each of which is a separate county of the State of New York. The five boroughs – Brooklyn, Queens, Manhattan, The Bronx, and Staten Island – were consolidated into a single city in 1898. The city and its metropolitan area constitute the premier gateway for legal immigration to the United States. As many as 800 languages are spoken in New York, making it the most linguistically diverse city in the world. New York City is home to more than 3.2 million residents born outside the United States, the largest foreign-born population of any city in the world. As of 2019, the New York metropolitan area is estimated to produce a gross metropolitan product (GMP) of US$1.9 trillion. If greater New York City were a sovereign state, it would have the 12th highest GDP in the world. New York is home to the highest number of billionaires of any city in the world.

Indians in the New York City metropolitan region constitute one of the largest and fastest growing ethnicities in the New York City metropolitan area of the United States. The New York City region is home to the largest Indian American population among metropolitan areas by a significant margin, enumerating 711,174 uniracial individuals by the 2013-2017 U.S. Census American Community Survey estimates. The Asian Indian population also represents the second-largest metropolitan Asian national diaspora both outside of Asia and within the New York City metropolitan area.

Indian cuisine is very popular among Asian Indians in the United States. The growth in the New York City metropolitan region's Asian Indian populace has been accompanied by growth in the number of Indian restaurants, located both within and outside of traditional Indian enclaves, such that within New York City proper alone, there are hundreds of Indian restaurants. According to David Shaftel of The New York Times in December 2014, the food at New York City's many chain restaurants is worthy of their flagships in India; the Midtown Manhattan neighborhood south of Murray Hill, namely Rose Hill, has been nicknamed Curry Hill, and provides an abundance of multinational India-based chains specializing in South Indian cuisine.

With this various people in this city, people do have various cultural diversity and also the different type of food habit. People can fulfil their wishes of having their homely food as it has many restaurants over the city with different cuisines, such as Indian, Chinese etc.

In this capstone project we will explore the major part of the New York city with great Indian restaurants.

**Data:**

To accomplish our task of exploring Indian restaurants in New work city, we need the datasets which covers the below:

* New York City data that contains list Boroughs, Neighborhoods along with their latitude and longitude.
  + Data Source: https://cocl.us/new\_york\_dataset
  + This data set contains the required information. And we will use this data set to explore various neighborhoods of New York city.
* Indian restaurants in each neighborhood of New York city.
  + Data source: Foursquare API
  + Description: By using this API we will get all the venues in each neighborhood. We can filter these venues to get only Indian resturants.
* GeoSpace data
  + Data source: https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm
  + Description: By using this geo space data we will get the New York Borough boundaries that will help us visualize choropleth map.

**Approach of the Study:**

* Collect the New York city data from <https://cocl.us/new_york_dataset>
* Using FourSquare API we will find all venues for each neighborhood.
* Filter out all venues that are Indian Restaurants.
* Find ratings, tips and like count for each Indian Restaurants using FourSquare API.
* Using rating for each restaurant, we will sort that data.
* Visualize the Ranking of neighborhoods using folium library using python. (we will get the New York Borough boundaries that will help us visualize choropleth map and take proper decision for the entrepreneurs)

**Business Problems:**

This will be applicable for the entrepreneurs who would like to set up an Indian restaurant in the New York city. They need to consider many aspects before they go for their set up, such as getting the suitable location based on the other restaurants exist with the neighbourhoods and their ratings/likes. And also, they need to see the distribution of the Indian restaurants across the locality. Mainly the below questions from an entrepreneur point of view should be considered.

# Questions to answer from datasets:

* What is best location in New York City for Indian Cuisine?
* Which areas have potential Indian Restaurant Market?
* Which all areas lack Indian Restaurants?
* Which is the best place to stay if I prefer Indian Cuisine?