**Introduction:**

New York city is the most populated city in the United States and is home to one of the world’s largest and fastest growing ethnic demographics. An estimated 9 million people call it home according to 2019 U.S Census data. It’s two key demographic attributes are population density and cultural diversity. Around 36% of the city’s population are born outside of the country.

Asian Americans are a big part of the immigration population in New York city. New York contains the highest total Asian population of any U.S. city. The Indian American population in the New York City metropolitan region was second in its population as an [Asian ethnicity](https://en.wikipedia.org/wiki/Asian_people) only to the approximately 893,697 [Chinese New Yorkers](https://en.wikipedia.org/wiki/Chinese_in_New_York_City) as of 2017. There were 226,888 [Indian Americans](https://en.wikipedia.org/wiki/Indian_American) residing in the city, representing 2.7% of the population.

The graphs below represent Asian American population by ethnicity per Wikipedia 2018 census data and Indian American population by NY city boroughs per Wikipedia 2012-2014 data.

Figures presented below informs that Indian population is quite high and they are mostly concentrated in Queens area. Indian Americans have quite high median income too.

Frequent social media posts have shown quite a lot of dissatisfied customers with the food quality and service.

**Problem:**

This Coursera capstone final project will try to identify the best locations for Indian restaurants throughout New York city. Reviewing the Indian population in NY city and recent popularity of Indian food, setting up a new Indian restaurant can be a sustainable and profitable plan. However, as statistics show opening and running a successful new restaurant demands detail planning, surrounding market data analysis and research. Accessibility to the location is another huge factor for any long-term business success. Finding how the competitors are performing in terms of rating and popularity will be a key data to analyze.

My capstone project will try to answer these two questions for an investor:

1. What location will be good to open a new Indian restaurant?
2. Where is the best Indian food available?

**Data Needed:** We will use New Your city data found at the following link:

<https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-DS0701EN-SkillsNetwork/labs/newyork_data.json>

* Data related to Indian restaurants will be obtained via the FourSquare API.
* Limitation on data gathering is to 500 meters within the location and limit to 100 top locations
* Data for ratings, tips and likes submitted by users will be summarized and read to a DataFrame.
* We will use geopy library to get the latitude and longitude of the address
* Folio mapping tool will be used to display the density, location of the existing Indian Restaurants around the NY city boroughs.
* Data will be grouped, sorted and analyzed to find which location should be new restaurant will be opened and where is the best Indian food available.