IBM Data Science Professional Certificate
Capstone Project: The Battle of the Neighborhoods (Week 1) – Report

1.Introduction & Business Problem:

Problem Background:

The City of New York, is the most populous city in the United States. It is diverse and is the financial capital of USA. It is multicultural. It provides lot of business opportunities and business friendly environment. It has attracted many different players into the market. It is a global hub of business and commerce. The city is a major center for banking and finance, retailing, world trade, transportation, tourism, real estate, new media, traditional media, advertising, legal services, accountancy, insurance, theater, fashion, and the arts in the United States. This also means that the market is highly competitive. As it is highly developed city so cost of doing business is also one of the highest. Thus, any new business venture or expansion needs to be analyzed carefully. The insights derived from analysis will give good understanding of the business environment which help in strategically targeting the market. This will help in reduction of risk. And the Return on Investment will be reasonable.

Problem Description:

A restaurant is a business which prepares and serves food and drink to customers in return for money, either paid before the meal, after the meal, or with an open account. The City of New York is famous for its excellent cuisine. Its food culture includes an array of international cuisines influenced by the city's immigrant history. The city is home to "nearly one thousand of the finest and most diverse haute cuisine restaurants in the world", according to Michelin. So, it is evident that to survive in such competitive market it is very important to strategically plan. Various factors need to be studied in order to decide on the Location. Even though well-funded ABC Company Ltd. need to choose the correct location to start its first venture. If this is successful they can replicate the same in other locations. First move is very important, thereby choice of location is very important. Target Audience: To recommend the correct location, XYZ Company Ltd has appointed me to lead of the Data Science team. The objective is to locate and recommend

to the management which neighborhood of New York city will be best choice to start a restaurant. The Management also expects to understand the rationale of the recommendations made. This would interest anyone who wants to start a new restaurant in New York city. Success Criteria: The success criteria of the project will be a good recommendation of borough/Neighborhood choice to ABC Company Ltd based on Lack of such restaurants in that location and nearest suppliers of ingredients.

2. Data:

One city will be analyzed in this project: New York City.
We will be using the below datasets for analyzing New York city

Neighborhood has a total of 5 boroughs and 306 neighborhoods. In order to segment the neighborhoods and explore them, we will essentially need a dataset that contains the 5 boroughs and the neighborhoods that exist in each borough as well as the latitude and longitude coordinates of each neighborhood. This dataset exists for free on the web.

Link to the dataset is: https://geo.nyu.edu/catalog/nyu_2451_34572

Also, I will be using the FourSquare API to collect the data of restaurants.