

## INTRODUCTION

**New York** is the **most populous city** in the U.S. 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. New York had approximately 65.2 million visitors, comprising 51.6 million domestic and 13.5 million international visitors in 2018. Thus, business opportunities are vast in the city and so is the competition. Many big players have been attracted to this city in all areas of business. As is it a highly developed city, the cost of doing the business is huge and risk is high. Thus, any new business venture or expansion needs to be analyzed and studied carefully. This will ensure good understanding of the business environment and strategical planning to reduce the risk factor and increase returns.

## BUSINESS PROBLEM

As a business and tourist hub, the city is famous for its cuisine as well. From street food to high end Michelin star restaurants, you will find everything in New York City. Various well-known chefs have their restaurants there. Eat this, not that placed New York City as one of the top cities for food.

In 2015, NYC started building public WIFI hubs in locations where pay phones used to exist. There are plans to have over 7500 WIFI hotspots installed. Hotspots are to have up to 1GBps speed internet.

The objective is to locate and determine if a restaurant's proximity to a public WIFI hotspot has influence on the rating of that restaurant. The **target audience** interested in this problem is a group of small business owners who are interested in opening a restaurant in Manhattan.

## DATA ACQUISITION

This demonstration will make use of the following data sources:

*New York Wifi Venue Data Set (Kaggle)*

Data contains location of wifi hotspots with latitude and longitude values

*New York Top Venue Recommendations from FourSquare API*

(FourSquare website: [www.foursquare.com](http://www.foursquare.com))

I will be using the FourSquare API to explore venues located near NYC WIFI hotspots. The Foursquare explore function will be used to get venues located in the proximity of WIFI hotspots. Once these venues are obtained, I will be using the FourSquare API to get the rating of each venue. The resulting dataset will have the following column

- Venue ID
- Venue Name
- Coordinates : Latitude and Longitude
- Category Name
- Distance from Wifi point
- Rating of Venue

From these columns I will be making plots and showing stats on the relationship between distance from WIFI hotspot and rating of the venue.