Coursera Capstone

IBM Applied Data Science Capstone Project

***Recommend places to open a new Indian Restaurant in New Delhi, India.***

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1. **Business Problem Description:**

To open a new restaurant, the one of the most important factors which contribute to the success of any restaurant is its location. To determine, if a person or a big Indian restaurant chain like Sarvana Bhawan, Pind Balluchi, etc. wants to open a new restaurant, this project will recommend the places where they need to open it. According to the CNBC report, 45% of restaurant failure is because the owner chose bad location for the restaurant. Poor visibility, no parking, and no foot traffic is a combination that makes it nearly impossible to turn a profit. Picking up the right location can make up for some of the other deficits in this list which include food quality, staff friendly, etc.

1. **Business Requirement Description:**

Indian Restaurant Market is one of the fastest growing market in the world, and the foodservice industry is expected to reach INR 28000 crores in 2021.

To analyze and select the best locations in New Delhi, India to open a new Indian restaurant. Picking up the best location includes three important factors:

* Population Base
* Accessibility
* Parking Facility

This project is timely as the city is currently suffering from the oversupplying of Indian restaurants.

1. **Data Resources:**

Following are the data resources which define the scope of the project.

* + Excel file from the website <https://simplemaps.com/data/in-cities> which include the Indian Geocodes for the places in Delhi.
  + Geocoder package for latitude and longitude coordinates.
  + We will be using the Foursquare API for this project. The reason for using the Foursquare API is because it has one of the largest databases of 105+ million places and is used widely by many developers too. Foursquare will provide different categories of the venues data and Indian Restaurants is among one of the categories, we are interested in for this project. Foursquare API to get the venue details related to the Indian restaurants mainly
* South Indian Restaurant
* Indian Restaurant
* North Indian Restaurant
* Indian Chinese Restaurant
* Multicuisine Indian Restaurant
* Northeast Indian Restaurant
  + This project will make use of Data Science skills which we learnt under this professional certification program like Reporting, Python, Data Analyzing, Data Cleaning, Data Wrangling, Project Methodology, Machine Learning Skills.