**Identifying and Recommending Best Restaurants**

**Project Overview**

In this project, we aim to enhance a restaurant consolidator's B-to-C portal using intelligent automation technology. The goal is to identify and recommend restaurants effectively. To achieve this, we will perform data analysis, leveraging visualization methods such as plots and charts for clear communication of insights.

**Problem Statement**

The restaurant consolidator seeks matrices to improve its recommendation system. To achieve an effective model, a thorough understanding of the data is crucial. The project focuses on exploring data behaviour and identifying patterns for restaurant recommendations.

**Project Goal**

The objective of this project is to leverage Python for data analysis and tableau for visualization to identify and recommend the best restaurants in a given area. The project aims to extract insights from a dataset containing information about various restaurants, including customer reviews, ratings, cuisine types, and other relevant attributes. By employing advanced data analysis techniques, the goal is to develop a recommendation system that assists users in selecting the most suitable dining options based on their preferences.

**Approach**

**Data Preliminary Analysis (Week 1)**

* Perform preliminary data inspection, reporting findings on data structure, missing values, duplicates, and variable names.
* Identify and remove duplicates based on the inspection.

**Preliminary Report:**

* Explore the geographical distribution of restaurants, highlighting cities with maximum/minimum restaurants.
* Analyse overall ratings distribution.
* Investigate popular restaurant franchises with a national presence.
* Determine the ratio of restaurants allowing table booking vs. those that do not.
* Assess the percentage of restaurants providing online delivery.
* Examine the difference in the number of votes for restaurants with and without delivery options.
* Identify the top 10 cuisines served across cities.
* Investigate the range of cuisines served by restaurants and its relationship with ratings.
* Discuss the cost variable in relation to other factors.
* Explore factors that may affect ratings, such as the number of cuisines, cost, and delivery options.

**EDA and Dashboarding (Week 2)**

**Explore Cuisines:**

* Identify the top 10 cuisines served across cities.
* Determine the maximum and minimum number of cuisines served by a restaurant, and find the most served cuisine for each city.

**Distribution Analysis:**

* Explore the distribution of costs across restaurants.
* Analyse how ratings are distributed among various factors.

**Factors Affecting Ratings:**

* Explain factors in the data that may impact ratings, such as the number of cuisines, cost, and delivery options.

**Dashboard (Tableau):**

* Visualize variables using Tableau to provide an interactive exploration of the data.
* Demonstrate relationships between variables and key factors to build a comprehensive dashboard.