Data Analyst Capstone – Marketing Project Write-Up

# Project Title

Restaurant Intelligence and Recommendation System for a B2C Portal

# Problem Statement

A restaurant aggregator aims to upgrade its B2C platform using intelligent automation. The objective is to:  
1. Identify "Star Restaurants" using relevant data-driven matrices.  
2. Generate recommendations for consumers based on the analysis.  
3. Build a dynamic dashboard that updates regularly for tracking and decision-making.  
  
Understanding customer behavior and restaurant operations is essential. This involves examining key factors that impact ratings, votes, cuisine variety, pricing, and services offered.

# Datasets Provided

1. data.xlsx\_marketing.xlsx: Contains restaurant-level attributes (19 columns), including:  
 - Restaurant Name, Location, Cuisine, Rating, Cost, Votes, etc.  
2. Country-Code.xlsx\_marketing.xlsx: Maps Country Code to Country Name (2 columns).  
3. variable description.xlsx\_marketing.xlsx: Describes all columns used across datasets.

# Key Attributes in the Data

Restaurant Name: Name of the restaurant  
City, Country Code: Location information  
Cuisines: Types of cuisines offered  
Average Cost for Two, Currency, Price Range: Price-related attributes  
Has Table Booking, Has Online Delivery: Service options  
Aggregate Rating, Rating Text, Votes: Quality indicators

# Project Tasks

## Week 1 – Data Understanding and Cleaning

- Perform preliminary data inspection to identify structure, missing values, and duplicates.  
- Remove duplicates and handle missing/null entries.  
- Explore geographic distribution of restaurants.  
- Identify nationally present franchises.  
- Analyze booking and delivery ratios, and compare votes.

## Week 2 – Exploratory Data Analysis (EDA)

- Identify Top 10 Cuisines across cities.  
- Analyze cuisine variety per restaurant and common cuisines per city.  
- Study cost distribution and ratings.  
- Determine which factors influence ratings.

## Week 3 – Modeling / Matrix Development

- Define criteria for star restaurants (e.g., rating ≥ 4.2, votes ≥ 100).  
- Create data summaries based on chosen thresholds.

## Week 4 – Dashboarding

- Use Tableau or Power BI to build interactive visualizations.  
- Highlight star restaurants and visualize insights.  
- Enable filters for location, price, and service availability.  
- Design a refreshable dashboard.

# Outcome

- List of Top Star Restaurants identified through data analysis.  
- Interactive dashboard with filters and insights for decision-making.