Final Project 2: Restaurant Ratings Analysis (India)

📌 **Project Objective**

You are required to **prepare a complete Restaurant Ratings Analysis project for INDIA**, similar to the demo project shown in this attachment (Mexico dataset).

👉 **This time, you must NOT use the provided dataset.**

👉 You must **collect, prepare, and analyze Indian restaurant data on your own**.

📍 **Data Collection (MANDATORY)**

You must **collect data using Google Search / Google Maps / Zomato / Swiggy / Dineout**.

🔍 **How to collect data**

Search examples:

- "Best restaurants in Pune"
- "Top rated restaurants in Mumbai"
- "Veg restaurants in Bengaluru"
- "Restaurants with parking in Delhi"

From Google / platforms, collect:

- Restaurant name
- City & State (India only)
- Cuisine type
- Price range
- Alcohol availability
- Parking availability
- Ratings (can be manual / simulated)

📂 **Dataset Structure (FOLLOW THIS)**

You must create **at least 5 tables** similar to the demo project.

1️⃣ **Consumers**

- Consumer_ID
- City
- State
- Age

- Gender
- Occupation (Student / Employed / Business)
- Marital_Status
- Smoker (Yes/No)
- Drink_Level (Non / Casual / Social)
- Budget_Level (Low / Medium / High)
- Transport_Mode

👉 Consumers data can be **survey-based or simulated**, but must look realistic.

2️⃣ Consumer_Preferences

- Consumer_ID
- Preferred_Cuisine (Indian, Chinese, South Indian, Street Food, etc.)

3️⃣ Restaurants

- Restaurant_ID
- Restaurant_Name
- City
- State
- Country (India)
- Price_Range (Low / Medium / High)
- Pure_Veg (Yes/No)
- Alcohol_Served (No / Beer & Wine / Full Bar)
- Parking (None / Public / Private / Valet)
- Franchise (Yes/No)
- Online_Delivery (Yes/No)

4️⃣ Ratings

- Consumer_ID
- Restaurant_ID
- Overall_Rating (1–5)
- Food_Rating (1–5)

- Service_Rating (1–5)
- Value_for_Money (1–5)

5️⃣ Restaurant_Cuisines

- Restaurant_ID
- Cuisine_Type

🧹 Data Cleaning (COMPULSORY)

You must perform:

- Remove duplicates
- Handle missing values
- Standardize city/state names
- Correct data types
- Create relationships between tables

🧮 Calculated Columns (Power BI / DAX)

You must create at least:

Age Group

```
AgeGroup =
SWITCH(
   TRUE(),
   consumers[Age] <= 18, "Children & Adolescents",
   consumers[Age] <= 30, "Young Adults",
   consumers[Age] <= 45, "Adults",
   consumers[Age] <= 60, "Middle-aged Adults",
   "Seniors"
)
```

Rating Category

```
Overall_Rating_Category =
SWITCH(
```

```
    TRUE(),
    ratings[Overall_Rating] <= 2, "Low",
    ratings[Overall_Rating] = 3, "Medium",
    "High"
)
```

📈 Analysis Questions (YOU MUST ANSWER)

Local Insights

- Which Indian city has the most consumers?
- Age distribution by city/state
- Smoker vs non-smoker analysis
- Transport method usage

Restaurant Insights

- Restaurants count by city/state
- Price range vs ratings
- Franchise vs non-franchise comparison
- Parking availability analysis

Cuisine Insights

- Most preferred cuisine in India
- Cuisine preference by age group
- Cuisine vs ratings

Service & Quality

- Food vs Service rating comparison
- Impact of alcohol service on ratings
- Value for money analysis

Top Restaurants

- Top 5 restaurants by Overall Rating
- Top 5 by Food Rating
- Top 5 by Service Rating

📊 Dashboard Requirements (MINIMUM)

You must create **at least 3 dashboard pages**:

Page 1 – Consumer Analysis

- City-wise consumers
- Age groups
- Drink & smoking habits

Page 2 – Restaurant Analysis

- Price range
- Parking & alcohol availability
- Franchise analysis

Page 3 – Ratings & Cuisines

- Top restaurants
- Cuisine popularity
- Rating comparison

📦 Submission Checklist

You must submit:

- ✅ Raw collected data (Excel / CSV)
- ✅ Cleaned dataset
- ✅ Power BI file (.pbix)
- ✅ Project report (PDF / Word)
- ✅ Dashboard screenshots

⚠️ Important Rules

- ❌ No Mexico / foreign data
- ❌ No copied datasets
- ✅ Only Indian restaurants
- ✅ Minimum 5 Indian cities
- ✅ Data must look realistic

📌 **This project will be evaluated for:**

- Data collection effort
- Data modeling
- Cleaning logic
- Analysis quality
- Dashboard clarity
