Restaurant Analysis – Decomposition Plan

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Project Focus: Business Intelligence Analyst Onboarding – Zomato
Analyst Role: Junior Analyst
Area of Analysis: Restaurant Performance
Objective: To evaluate restaurant performance on the Zomato platform, identify top performers, uncover success drivers, and highlight opportunities for growth.

Key Research Questions

- Which restaurants generate the highest revenue?
- Which restaurants receive the highest number of orders?
- Are there trends in top-performing restaurants based on location, cuisine type, or menu variety?
- Does the number of menu items or average menu pricing impact performance?
- Are there any outliers—restaurants with high traffic but low revenue or vice versa?
- Do customer ratings correlate with restaurant revenue or order volume?

Hypotheses

- Restaurants with a larger and more diverse menu generate higher revenue.
- Certain cuisine types (e.g., fast food, regional specialties) are more popular.
- High-rated restaurants perform better in terms of both revenue and volume.
- Lower-cost restaurants receive a higher number of orders

Metrics & Parameters

- Total revenue per restaurant
- Number of orders per restaurant
- Average order value
- Number of menu items
- Cuisine type
- Restaurant location/region
- Average price per dish (if calculable)

Visualizations to Include

- Bar Chart: Top 10 restaurants by total revenue
- KPI Cards: Total revenue, average order value, number of orders
- Map View: Restaurant performance by location
- Scatter Plot: Menu size vs. revenue
- Box Plot: Revenue distribution by cuisine type
- Bubble Chart: Revenue vs. Order count, sized by average order value – to spot high-traffic, low-revenue restaurants or vice versa.
- Scatter Plot: Rating vs. Revenue

Data Preparation & Tables

Tables to Use:

- restaurant – Name, city, cuisine, rating, cost, and rating count
- orders – Order date, sales amount, sales quantity, restaurant ID, user ID
- menu – Menu items per restaurant, item prices, cuisine tags
- food – Dish names and veg/non-veg classification (optional for extended insights)

Data Prep Tasks:

- Load all tables and establish relationships:
    - Join orders to restaurant using r_id = id
    - Join menu to restaurant using r_id = id
    - Join menu to food using f_id
- Use Power BI filters and visuals to:
    - Exclude rows with sales_amount = -1 (invalid transactions)
    - Filter out restaurants with non-numeric ratings (rating = '--')
    - Group or split multi-cuisine values from cuisine columns, as needed for visuals
    - Aggregate order data by restaurant ID to calculate total revenue, order count, and average order value
    - Count the number of menu items per restaurant dynamically using DAX or visual-level aggregations
    - Currency normalization: convert sales_amount from USD to INR (e.g., multiply by 64.7735*) for rows where currency = 'USD' to ensure consistent aggregation
        - According to xe.com, the exchange rate was 1 USD = 64.7735 INR on 11/22/2017, which aligns with the USD order dates.
- Create calculated columns or measures in Power BI as needed:
    - Average price per menu item per restaurant
    - Average order value
    - Total revenue per restaurant