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Decomposition Plan for Zomato Customer Analysis

Introduction: As part of my onboarding process with Zomato, a multinational restaurant aggregator and food delivery company, I have been tasked with analyzing customer behavior to better understand and segment the customer base. This analysis will help Zomato tailor its marketing strategies and improve customer engagement.

Chosen Area of Analysis: I have chosen to focus on Customer Analysis Segmentation. The goal is to answer key questions about Zomato's customers, such as who they are, what segments they can be split into, and their purchasing behavior.

Research Questions and Hypotheses:
1. **Who are Zomato's customers?**
   o Hypothesis: Customers can be segmented based on demographics such as education level and gender.
2. **What is the purchasing behavior of different customer segments?**
   o Hypothesis: Customers with higher education levels and females have higher average order values.
3. **How does order frequency vary among different customer segments over time?**
   o Hypothesis: Customers with higher education levels exhibit more consistent and frequent ordering patterns.

Data Preparation:
1. **Data Cleaning:**
   o Remove duplicates and handle missing values in the provided datasets (users, orders, restaurant, menu, food).
2. **Data Transformation:**
   o Create calculated fields for metrics such as Average Order Value and Total Orders per Customer.
   o Join tables (orders with users, restaurant, menu, food) on common keys to build a comprehensive dataset.

Visualizations:
1. **Average Order Value by Education:**
   o **Visualization Type:** Bar Chart
   o **Purpose:** To identify the average order value across different education levels.
   o **Fields Used:** education (from users), order_amount (from orders)
2. **Customer Segments by Gender:**
   o **Visualization Type:** Bar Chart
   o **Purpose:** To understand the gender distribution and purchasing behavior of customers.
   o **Fields Used:** gender (from users), order_id (from orders)
3. **Order Frequency by Education Level Over Time:**

- o **Visualization Type:** Line Chart
- o **Purpose:** To analyze order frequency trends over time for different education levels.
- o **Fields Used:** order_date (from orders), education (from users), order_id (from orders)

Dashboard Plan:
- **Title:** Customer Analysis Dashboard
- **Components:**
  - o Bar Chart: Average Order Value by Education
  - o Bar Chart: Customer Segments by Gender
  - o Line Chart: Order Frequency by Education Level Over Time
- **Interactivity:**
  - o Filters for Education and Gender to allow users to drill down into specific segments.
  - o Tooltips providing additional details for each visualization.

Next Steps:
1. **Submit Decomposition Plan for Approval:**
   - o Await feedback from the team leader and make any necessary adjustments.
2. **Develop Visualizations in Tableau Public:**
   - o Build the specified visualizations using the cleaned and transformed data.
3. **Create Dashboard in Tableau Public:**
   - o Assemble the visualizations into a cohesive dashboard, ensuring interactivity and usability.
4. **Analyze and Document Findings:**
   - o Summarize insights from the visualizations and provide actionable recommendations.
5. **Submit Final Project:**
   - o Submit the final dashboard and report detailing the analysis, findings, and recommendations.

By following this structured approach, I aim to deliver a comprehensive analysis of Zomato's customer segments, providing valuable insights that can inform strategic business decisions.