Zomato: Restaurant Analysis – Research Plan

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Focus Area: Restaurant Analysis

Objective: Identify top-performing restaurants and uncover the factors (e.g., cuisine, menu pricing, customer behavior) that influence revenue and popularity on Zomato.

1. Research Questions

1. **Performance & Popularity**
   - **Which restaurants generate the highest total revenue?**
   - **Which restaurants receive the most order volume?**
2. **Success Factors**
   - **How do cuisine, menu pricing, and rating influence performance?**
   - **Is there a correlation between menu diversity and restaurant success?**
3. **Customer Behavior Influence**
   - **Are specific user demographics (age, occupation, income) linked to high-performing restaurants?**
   - **Do certain cities consistently host more successful restaurants?**

2. Tables, Key Fields & Joins

Table	Fields to Use
restaurant	id, name, city, rating, rating_count, cost, cuisine, menu
orders	order_date, sales_qty, sale_amount, user_id, r_id
menu	menu_id, r_id, f_id, cuisine, price
food	f_id, item, veg_or_non_veg
users	user_id, age, gender, occupation, monthly_income, city (via join)

Join Map:

restaurant.id ⇔ menu.r_id

menu.f_id ⇔ food.f_id

orders.r_id ⇔ menu.r_id or restaurant.id

orders.user_id ⇔ users.user_id

Metrics & KPIs

KPI	Calculation
Total Revenue	SUM(sale_amount) GROUP BY restaurant.id
Total Orders	COUNT(order_date) or SUM(sales_qty) GROUP BY restaurant.id
Average Order Value	SUM(sale_amount) / COUNT(order_date)
Average Dish Price	AVG(menu.price) GROUP BY restaurant.id
Menu Size	COUNT(DISTINCT f_id) per restaurant
Cuisine Variety	COUNT(DISTINCT cuisine) in menu GROUP BY restaurant
Rating Score	Direct from restaurant.rating and rating_count

4. Analysis Plan

A. Descriptive Analysis

- Rank restaurants by revenue, order volume, average price, and rating.
- Profile top 10% of restaurants: cuisine, cost level, city.

B. Comparative Analysis

- Cross-tabulate city vs. restaurant success.
- Compare veg vs. non-veg offering mix and associated sales.

C. Correlational Analysis

- **Use scatterplots to assess:**
  - **Rating vs Revenue**
  - **Menu size vs Revenue**
  - **Cost vs Order Volume**

D. Demographic Overlay (optional)

- **Use user data to explore whether restaurants attracting high-income or specific age groups perform better.**

5. Dashboard Elements

Visualization	Description
Bar Chart	Top 10 Restaurants by Revenue & Orders
Heatmap	Revenue by City and Cuisine
Scatter Plot	Rating vs Revenue, Cost vs Orders
Treemap or Pie Chart	Cuisine distribution among top performers
Histogram	Menu size distribution across restaurants
Slicer/Filter Controls	City, Cuisine, Cost Tier

6. Deliverables

1. **Interactive Dashboard (Power BI or Tableau)**
2. **Concise Presentation or Report, highlighting:**
   - **High-level trends**
   - **Key performance drivers**
   - **Strategic recommendations**

7. Project Timeline

Phase	Time Estimate
Data Cleaning & Merging	2 day
Exploratory Analysis	1 day
KPI Development & Validation	1–3days
Dashboard Design	1 day
Final Summary & Submission Prep	0.5–1 day