

□ Executive Summary: Zomato Dataset Analysis

□ Objective:

To analyze Zomato restaurant data, clean and transform the dataset, and uncover insights into customer behavior, restaurant popularity, and service offerings in various locations.

□ Data Preprocessing & Cleaning

Initial Dataset: Loaded zomato.csv.

Dropped columns: Removed irrelevant columns like url, address, phone, menu_item, dish_liked, and reviews_list.

Duplicates: Removed duplicate entries to ensure accuracy.

Rate Column:

Converted values like "NEW", "-", and "4.1/5" into float or NaN.

Replaced NaN ratings with the mean rating.

Cost Column:

Renamed approx_cost(for two people) to Cost2plates.

Converted string values like '1,200' to float.

□ Feature Engineering

Rest Type, Location, and Cuisines:

Combined categories with very low frequency into an "others" group:

rest_type with <1000 entries

location with <300 entries

cuisines with <100 entries

□ Visual Analysis & Insights

1. □ Location-Wise Restaurant Distribution

Highest density: Certain metro locations dominate the dataset.

Chart: Bar chart showing restaurant counts per location.

2. ☐ Online Order Availability

Chart: Countplot shows a **significant number of restaurants** support online ordering.

☐ Insight: Online ordering is a standard offering in urban food service.

3. ☐ Table Booking Option

Chart: Most restaurants **do not** support table booking.

☐ Insight: A niche feature — could be a market differentiator for fine dining.

4. ☐ Online Order vs Rating

Boxplot shows **slightly higher ratings** for restaurants offering online orders.

☐ Suggests digital convenience might improve customer satisfaction.

5. ☐ Table Booking vs Rating

Restaurants that support table booking also tend to have **higher ratings**.

☐ Booking system may correlate with service quality or restaurant type.

☐ Data-Driven Observations

online_order	Widely available; associated with higher average ratings
book_table	Less common but correlates with better ratings
location	High concentration in urban hubs; "others" captures outliers
rest_type	Simplified to common formats; others grouped for clarity
cuisines	Cuisine variety is broad; top few dominate customer options

✓ Recommendations

1.Promote Online Ordering: It's linked with higher ratings — beneficial for visibility and customer reach.

2.Explore Table Booking Expansion: Though less common, it's a marker of quality in user perception.

3.Focus on High-Density Locations: Urban centers like Koramangala and BTM dominate — prioritize them for marketing.

4.Refine Offerings by Cuisine & Format: Use demand data to optimize the cuisine mix and restaurant type per location.