**📊 Zomato Data Analysis & Dashboard Report by Rahul Madhiwalla business consultant. Dt: 20.4.25**

**✅ 1. Clean Dataset**

* The raw Zomato dataset was cleaned to remove inconsistencies such as:
  + Null values in key fields.
  + Inconsistent currency formats were excluded by focusing on the **Price Range** scale (1 to 4).
  + Online delivery values (Yes/No) were converted to binary (1/0) for analysis.
  + Derived columns (e.g., price category and delivery binary) were added for ease of modeling.

**📈 2. Analysis Reports**

**🪑 Service Availability Summary**

* A pivot analysis was conducted city-wise to understand:
  + How many restaurants offer **Online Delivery**.
  + How many offer **Table Booking**.
* Insights: Metro cities like Delhi and Bangalore have higher service availability.

**🍜 Customer Preferences by Cuisine**

* A count of cuisines was grouped by city using pivot tables.
* Popular cuisines varied:
  + North Indian and Chinese dominate in metro cities.
  + Regional cuisines have niche popularity in specific zones.

**💰 Price Range & Ratings Analysis**

* Created a matrix of average **Aggregate Rating** and **Votes** against combinations of **Price Range (1-4)** and **Online Delivery (0/1)**.
* This matrix was used to build a **What-If scenario simulator** to predict how pricing or service delivery changes could impact customer feedback.

**🗺️ Geographic Heatmap**

* Built using Conditional Formatting by city.
* Color-coded intensity shows restaurant density and average rating.
* Insights: Restaurant clusters in NCR and Mumbai show higher votes and ratings.

**🔍 What-If Analysis**

* Used **Scenario Manager and Data Tables**.
* Simulated business decisions:
  + If all Price Range 2 restaurants started Online Delivery, how would ratings/votes be affected?
* Predicted changes based on historical average matrix using INDEX + MATCH.

**📊 3. Interactive Dashboard**

* Built in Excel with:
  + **Pivot Tables and Pivot Charts** summarizing city-wise performance, price range influence, and cuisine spread.
  + **Slicers** for dynamic filtering by city, cuisine, delivery option.
  + **What-If Scenario simulator** embedded to test business hypotheses.
  + Dashboard layout optimized for leadership insights.

**📈 4. Visual Trend Representation**

* **Sparklines** added next to restaurants' monthly vote trends and average ratings.
* Enables a quick view of which restaurants are improving or declining.
* Created trend lines across cuisine categories and cities as well.

**📝 Final Submission Includes:**

* ✅ Cleaned Excel dataset with added columns.
* ✅ Pivot tables and charts for each key analysis.
* ✅ What-If Simulator worksheet.
* ✅ Interactive Dashboard combining slicers, charts, trends.
* ✅ Sparklines showcasing evolution of ratings/votes.
* ✅ Summary report (this document).