# **Exploratory Data Analysis (EDA) Report**

**Dataset: Zomato Restaurant Listings (Synthetic Sample)** 

#### What is EDA?

Exploratory Data Analysis (EDA) is a data investigation process that uses visualizations and statistics to uncover trends, patterns, and anomalies. It helps make informed business decisions by improving data understanding.

### **Steps Performed:**

- 1. Data Import & Cleaning
- Dataset shape: Rows = 200, Columns = 6
- No missing values in key columns
- All columns correctly typed (e.g., float, object, int)
- 2. City & Cuisine Insights
- Identified top 10 cities with the most restaurants
- Extracted primary cuisine from multi-cuisine listings
- 3. Univariate Analysis
- Count plots for cities and cuisines
- Distribution of average cost and ratings
- 4. Bivariate Analysis
- Scatter plot for cost vs rating
- Count plot for online delivery availability

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## **Key Insights:**

- Top Cities: Delhi, Mumbai, and Bangalore have the highest number of restaurants.
- Top Cuisines: North Indian, Chinese, and Fast Food are the most offered cuisines.
- Price Range: Most restaurants charge between Rs.300-Rs.700 for two people.
- Rating Trends: Ratings are generally high (3.7 to 4.6), with little cost impact.
- Delivery Preference: A majority of restaurants offer online delivery, especially in metros.

### **Next Steps:**

- Expand dataset for deeper regional trends.
- Add customer reviews or votes for sentiment analysis.
- Investigate correlation of ratings with service type (delivery vs dine-in).
- Explore weekday vs weekend patterns if time data is available.