Zomato Data Analysis Project

Summary

This project involves exploratory data analysis (EDA) on a Zomato dataset to understand restaurant trends, user behavior, and factors that influence customer engagement on the platform. The analysis focuses on identifying patterns in restaurant types, customer ratings, votes, cost, and services offered.

Key Insights:

- **Restaurant Type:** Majority of the restaurants fall under the **Dining** category, which also receives more **votes** than other categories like Delivery or Cafes.
- **Online Delivery & Bookings:** Restaurants offering **online ordering** or **table booking** tend to receive higher engagement.
- **Cost Trends:** A general analysis of **average cost for two** reveals pricing trends across different restaurant categories and locations.
- **Rating Distribution:** Most customer ratings are clustered between **3.0 and 4.5**, indicating moderate to high satisfaction.
- **Votes vs Rating:** A strong correlation is often observed between **votes and ratings**, showing user feedback alignment.

EDA Techniques Applied:

- Data Cleaning (null handling, renaming columns, formatting)
- Visualizations using bar plots, count plots, and heatmaps
- Correlation analysis and trend mapping

Tools & Technologies Used

- **Programming Language:** Python
- **Libraries:**
  - **Pandas** – data cleaning and manipulation
  - **NumPy** – numerical operations
  - **Matplotlib & Seaborn** – data visualization
- **IDE:** Jupyter Notebook

Learnings & Conclusion

- Real-world datasets often require **significant cleaning** before analysis.
- Visualizations are critical in identifying hidden trends and driving business insights.
- Understanding user behavior through data (like ratings and votes) is essential for platform optimization.
- This project builds a solid foundation in **exploratory data analysis**, which is crucial for any data-driven role.