Restaurant Data Analysis Project

📌 Project Overview

This project explores a real-world restaurant dataset to uncover key insights about cuisines, ratings, pricing, delivery options, and customer preferences. The goal is to understand restaurant performance trends and derive business insights using data analysis techniques.

🧩 Objectives

- Identify the **most common cuisines** and their percentage share.
- Analyse **city-wise restaurant distribution** and **average ratings**.
- Visualise the **price range distribution** and its relationship with delivery services.
- Compare **ratings of restaurants with and without online delivery**.
- Perform **text-based sentiment analysis** on review texts.
- Analyse **votes, price range, and services** to find key correlations.

⚙️ Tools & Libraries Used

- **Python:** Pandas, NumPy, Matplotlib, Seaborn, TextBlob
- **Jupyter Notebook** for analysis and visualisation
- **Dataset:** Restaurant data (CSV file from Cognifyz internship tasks)

📊 Key Analyses Performed

- **Cuisine Analysis:** Found top cuisines (North Indian, Chinese, Fast Food).
- **City Analysis:** New Delhi had the highest number of restaurants.

- **Online Delivery:** About 25% of restaurants offer online delivery, which has higher ratings on average.
- **Price vs Services:** Higher-priced restaurants are more likely to offer table booking and delivery.
- **Votes & Ratings:** Positive correlation between the number of votes and rating.
- **Review Text:** Sentiment analysis showed words like *“delicious”* and *“friendly”* in positive reviews.

🧠 Insights

- **North Indian, Chinese, and Fast Food** cuisines dominate the restaurant market.
- **Higher-priced restaurants** provide a better customer experience (higher ratings, more services).
- **Online delivery** improves accessibility and customer satisfaction.
- Review sentiment strongly aligns with **aggregate ratings**.

🚀 Outcome

Developed a complete **data analysis workflow** — from data cleaning and exploration to visualisation and sentiment analysis — providing actionable business insights for restaurant improvement.
