TASK 4 REPORT – LOCATION-BASED ANALYSIS COGNIFYZ TECHNOLOGIES – MACHINE LEARNING INTERNSHIP

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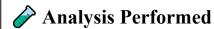
• Task Title: Task 4 – Location-Based Analysis

Objective

To explore and visualize geographical patterns in restaurant data, analyzing metrics like the number of restaurants, average ratings, and pricing across different cities.

Technologies Used

- Python (Google Colab)
- Libraries: Pandas, Matplotlib, Seaborn, Folium (optional)



1. Top Cities by Number of Restaurants

- New Delhi leads with the highest count of restaurants
- Followed by Gurgaon, Noida, and Faridabad

2. Top Cities by Average Ratings

 Highest average ratings seen in cities like Inner City, Quezon City, and Makati City

3. Correlation Heatmap

- Explored relationships between Aggregate rating, Votes, Price range, and Average cost for two
- Aggregate rating shows positive correlation with Votes and Price range

Visualizations

- Bar Plot: Top 10 Cities by Number of Restaurants
- Bar Plot: Top 10 Cities by Average Rating
- Heatmap: Feature Correlations

Conclusion

This task allowed me to:

- Perform real-world exploratory data analysis (EDA)
- Use data visualization to extract geographic insights
- Understand rating dynamics in different locations
- Practice data storytelling using Python visual tools

Attachments: • Notebook: Task4_Location_Analysis.ipynb • Report PDF: Task4_Report_Yashwanth.pdf • GitHub Repo: https://github.com/Yashwahthmc/Task-4.git **Signature:** YASHWANTH.M.C.