**Project Title**

**Food Delivery Delay and Performance Analysis**

**Objective**

To analyze delivery time performance, refund patterns, customer feedback, and partner efficiency to identify operational bottlenecks and improve service reliability.

**Data Source**

Data extracted from MySQL database containing the following tables:

* **orders:** Order date, delivery time, distance, status, refund flag.
* **delivery\_partners:** Partner ID, name, experience level, rating.
* **customers:** Customer ID, location, feedback.
* **restaurants:** Restaurant details and city.
* **feedback:** Ratings, comments, and issue reports.

**Tools & Technologies**

* **SQL (MySQL):** Data extraction, transformation, and cleaning.
* **Power BI:** Dashboard design and visualization.
* **Excel/CSV:** Optional for exporting and preprocessing data.

**Data Cleaning & Preparation**

* Removed null or invalid delivery times.
* Converted pickup\_time and drop\_time to datetime formats.
* Calculated delivery duration using DAX/SQL formula.
* Created calculated columns for refund rate, issue percentage, and delay flag.
* Established relationships between tables (Orders ↔ Partners ↔ Feedback).

**Dashboard Overview**

The dashboard consists of three layers:

1. **KPI Summary:** Total Orders, Refunded Orders, Delayed Deliveries, Issues, Avg Rating.
2. **Visual Analysis:** Scatter chart (Delivery Time vs Distance), Partner-wise and City-wise breakdowns.
3. **Operational Metrics:** Refund rates, issue patterns, and experience level comparison.

**Key Insights**

* 40% refund rate indicates potential service or delivery issues.
* Delayed orders correlate with longer delivery distances.
* Experienced partners deliver faster and maintain higher ratings.
* Refunds and complaints are concentrated in a few cities — potential for targeted training.

**Recommendations**

* Train new delivery partners to reduce delay frequency.
* Investigate refund reasons to improve customer trust.
* Optimize distance-based delivery routing.
* Extend data tracking over multiple months for stronger trend analysis.

**Outcome**

This project provides a full view of delivery performance, helping management teams identify weak points and make data-driven operational decisions.

**Attachments**

* Dashboard (.pbix)
* SQL Dump (Dump20251029.sql)
* Dashboard Screenshot (dashboard.png)