OLA Ride Performance Analytics (SQL & Power BI Project)

1. Introduction

The OLA Ride Performance Analytics project focuses on analyzing ride booking data to understand how OLA's ride operations perform across different dimensions such as bookings, revenue, cancellations, vehicle types, and ratings.

The objective of this project is to transform raw ride booking data into meaningful business insights. SQL is used for data analysis and querying, while Power BI is used to design interactive dashboards that help visualize trends and patterns in a simple and effective way.

2. Project Objectives

The main objectives of this project are to:

- Analyze overall ride booking performance
- Track successful, cancelled, and incomplete rides
- Evaluate vehicle-wise performance
- Understand revenue trends and payment methods
- Identify customer and driver cancellation reasons
- Analyze customer and driver ratings
- Support data-driven business decisions

3. Tools & Technologies Used

- **SQL**
  Used for querying data, calculating metrics, and answering analytical questions.
- **Power BI**
  Used to build interactive dashboards, visualizations, and KPIs.
- **CSV / Excel**
  Used as the data source for the project.

4. Dataset Overview

The dataset used in this project represents OLA ride booking data. Each record corresponds to one ride booking and contains the following information:

- Booking date and time
- Booking status (Success, Cancelled by Customer, Cancelled by Driver, Incomplete)
- Booking ID and Customer ID
- Vehicle type (Auto, Mini, Prime Sedan, Bike, etc.)
- Pickup and drop locations
- Ride distance
- Booking value
- Payment method
- Cancellation details (customer and driver)
- Incomplete ride reasons
- Customer and driver ratings

This dataset enables analysis of both operational performance and customer experience.

5. SQL Analytical Questions

The following analytical questions were solved using SQL:

1. Retrieve all successfully completed ride bookings.
2. Calculate the average ride distance for each vehicle type.
3. Determine the total number of rides cancelled by customers.
4. Identify the top five customers based on the number of ride bookings.
5. Calculate the number of rides cancelled by drivers due to personal or vehicle-related issues.
6. Determine the maximum and minimum driver ratings for Prime Sedan bookings.
7. Retrieve all rides where UPI was used as the payment method.
8. Calculate the average customer rating for each vehicle type.
9. Compute the total booking value generated from successfully completed rides.

10. List all incomplete rides along with their corresponding reasons.

6. Power BI Analytical Questions

The Power BI dashboard was designed to answer the following business questions:

Overall Ride Performance

1. How does ride volume change over time?
2. What is the overall booking status distribution?

Vehicle Performance

3. Which vehicle types contribute the highest booking value?
4. Which vehicle types account for the maximum total ride distance?
5. How does average customer rating vary across vehicle types?

Revenue & Customer Insights

6. What is the distribution of revenue by payment method?
7. Who are the top five customers based on total booking value?
8. How does ride distance vary on a daily basis?

Cancellations & Ratings

9. What are the primary reasons for customer cancellations?
10. What are the key reasons for driver cancellations?
11. What is the distribution of driver ratings?
12. How do customer ratings compare with driver ratings?

7. Dashboard Design & Structure

The Power BI dashboard is divided into the following sections:

- **Overall Performance**
  Displays total bookings, booking value, ride trends, and booking status breakdown.
- **Vehicle Analysis**
  Shows vehicle-wise ride distance, booking value, and performance comparison.

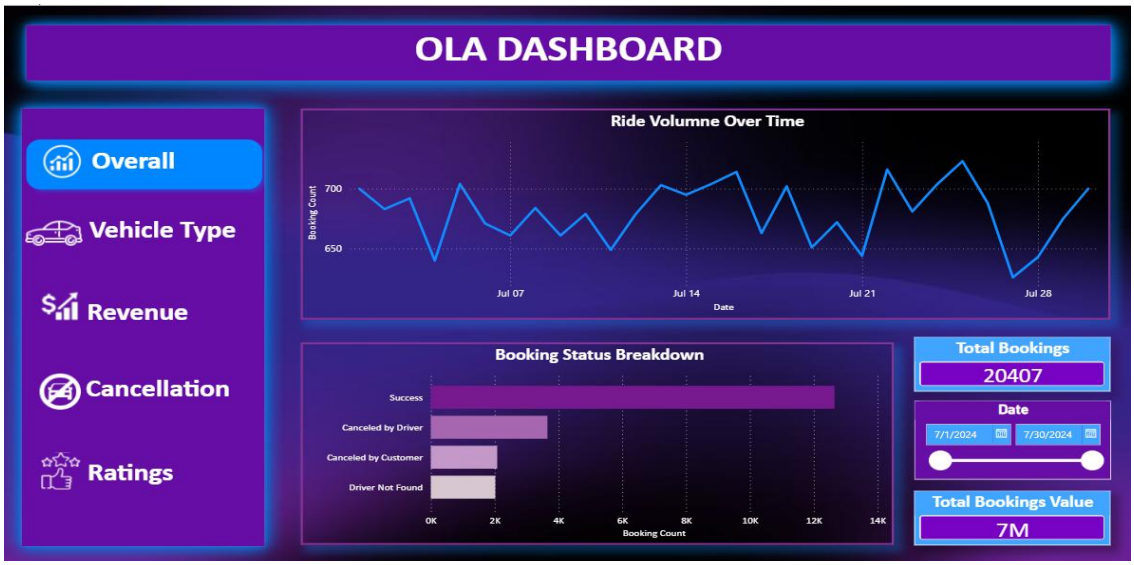
- **Revenue Analysis**
  Highlights revenue by payment method and top customers by booking value.
- **Cancellation Analysis**
  Analyzes customer and driver cancellation reasons.
- **Ratings Analysis**
  Compares customer ratings and driver ratings to evaluate service quality.

Each section is designed to provide clear and actionable insights**.**

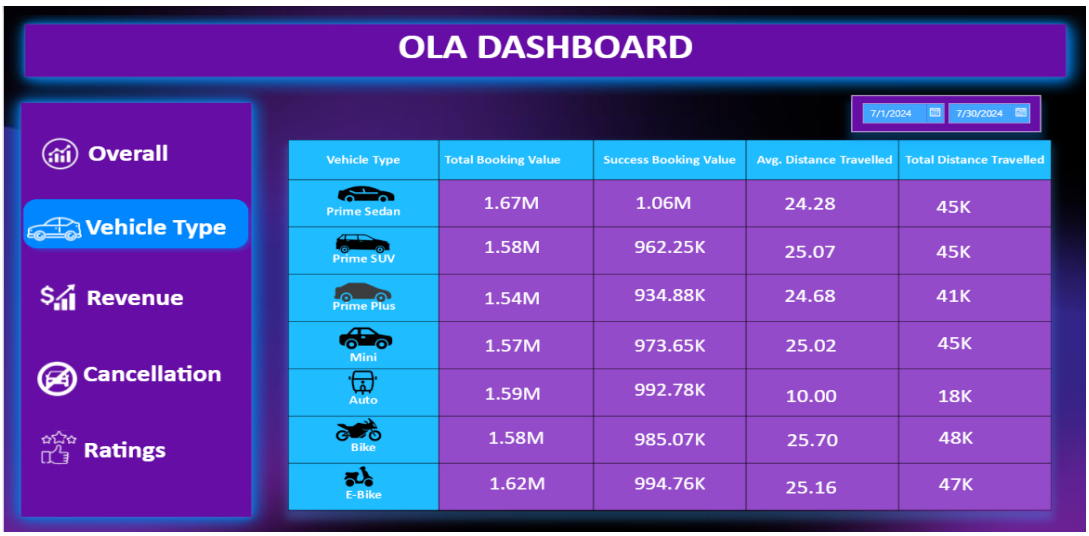
8. Dashboard Screenshots

This section presents the visual dashboards created using Power BI.

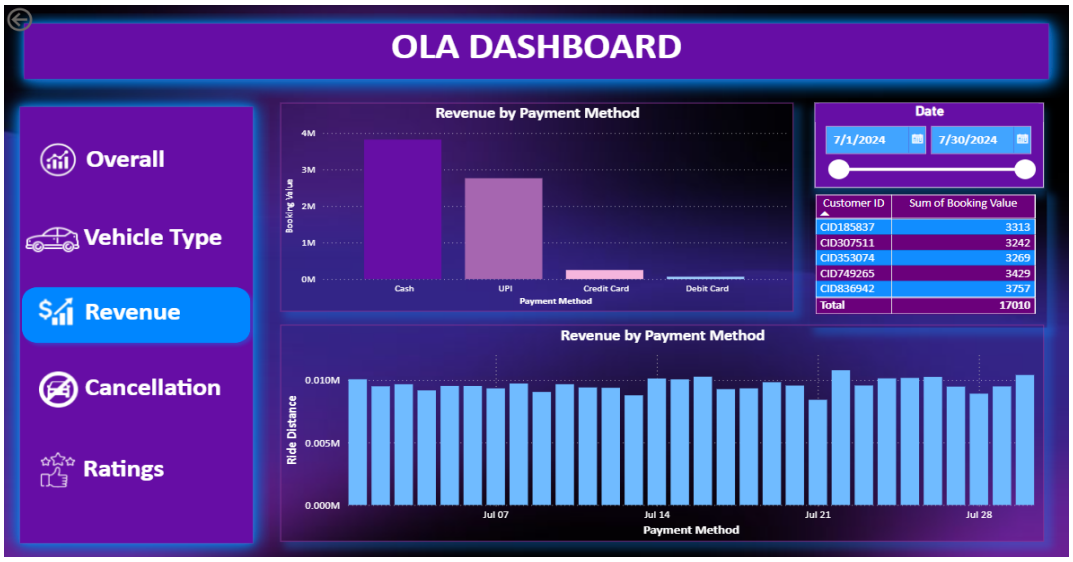
8.1 Overall Performance Dashboard



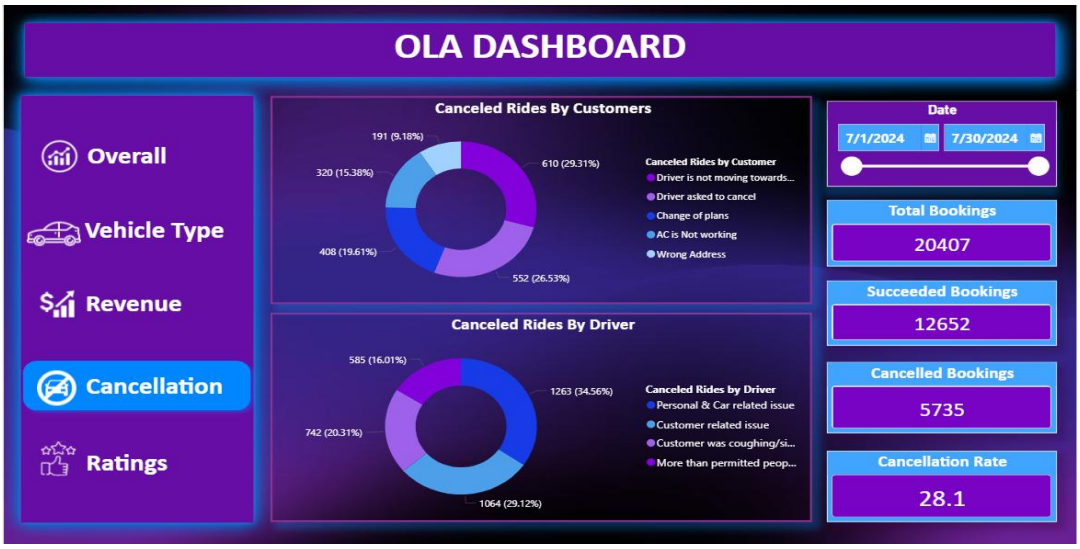
8.2 Vehicle Performance Dashboard



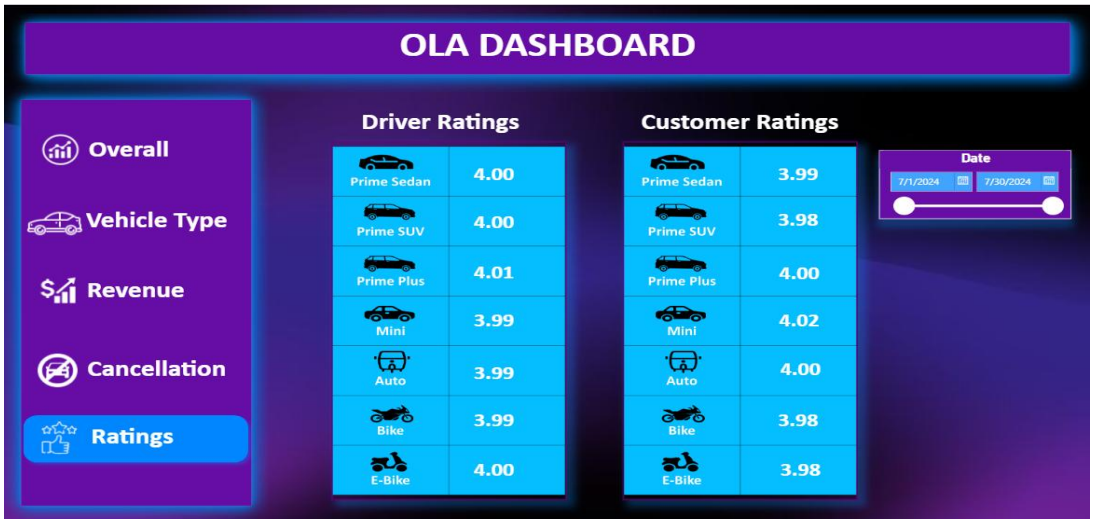
8.3 Revenue Analysis Dashboard



8.4 Cancellation Analysis Dashboard



8.5 Ratings Analysis Dashboard



9. Key Insights Summary

- Most ride bookings are successfully completed.
- Certain vehicle types contribute significantly to revenue and ride distance.
- UPI is one of the most commonly used payment methods.
- Ride cancellations occur due to both customer-related and driver-related reasons.
- Higher driver ratings are generally associated with better customer satisfaction.

10. Business Value

This project helps in:

- Monitoring ride performance and operational efficiency
- Identifying high-performing vehicle categories
- Understanding and reducing ride cancellations
- Improving customer experience
- Supporting data-driven business decisions

11. Conclusion

The OLA Ride Performance Analytics project demonstrates an end-to-end data analytics approach using SQL and Power BI. The project highlights the ability to analyze real-world business data, create meaningful dashboards, and generate insights that support operational and strategic decisions.