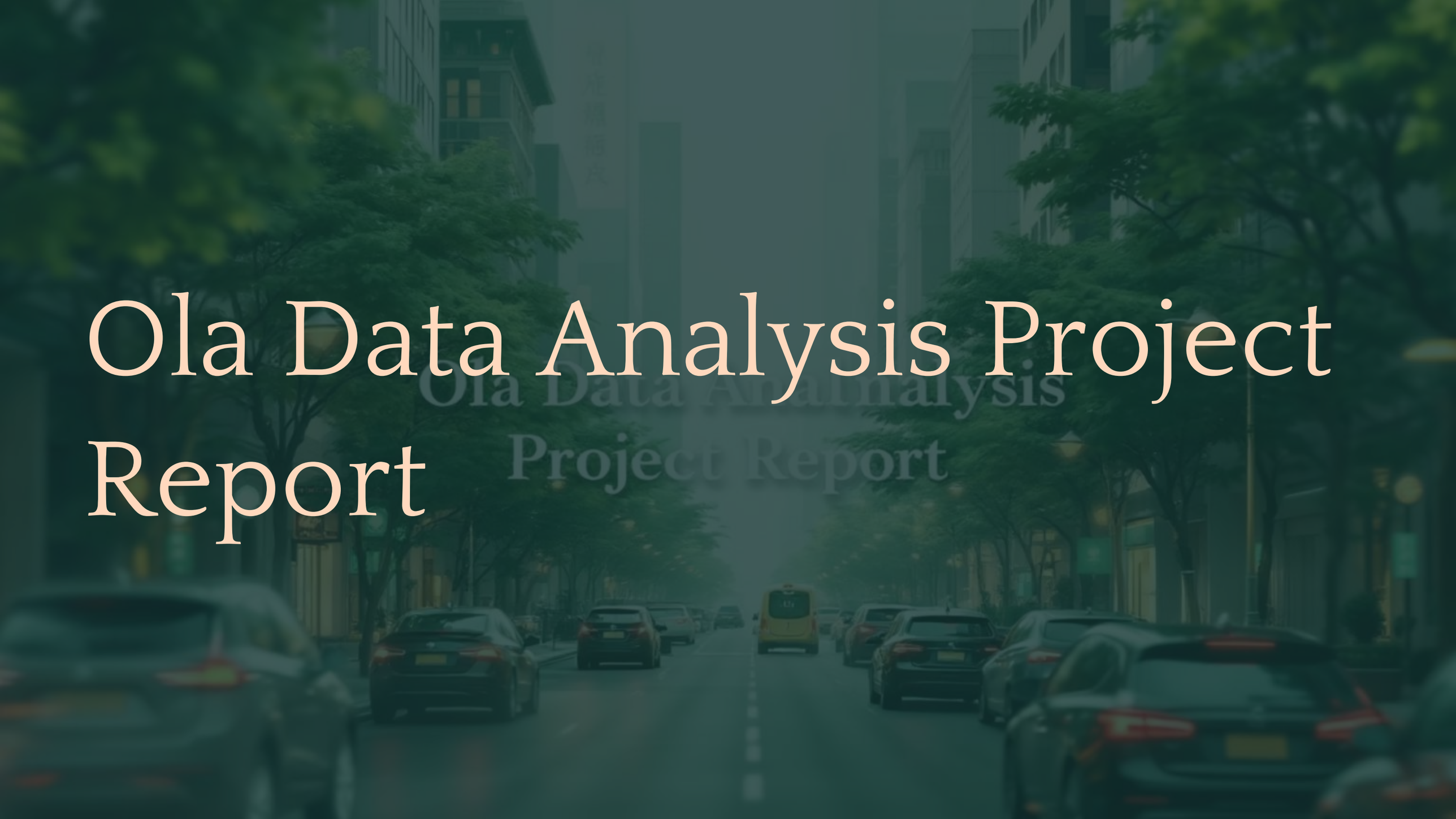
Ola Data Analysis Project Report



Executive Summary & Project Objective

1. Executive Summary

This project focuses on analyzing Ola's ride data to understand booking patterns, customer preferences, and overall business performance. The main goal was to use data to gain valuable insights that could help improve operations, customer experience, and business growth. The project was completed using Excel, SQL, and Power BI — each tool used for a different stage of the analysis.

2. Project Objective

The main objectives of this project were to:

- Analyze booking and ride patterns to find useful trends.
- Understand customer and driver ratings.
- Identify reasons behind ride cancellations.
- Explore payment preferences and revenue distribution.
- Present insights using Power BI dashboards for better decision-making.

3. Tools and Technologies Used

Excel

Used for initial data cleaning, removing duplicates, and formatting data for analysis.

SQL

Used for querying the cleaned data and answering key business questions.

Power BI

Used to visualize important insights and create interactive dashboards showing key metrics.

4. Data Cleaning and Preparation

The raw dataset was cleaned in Excel before being used for SQL and Power BI analysis. Steps included:

Removing entries

Removing blank or duplicate entries.

Standardizing formats

Standardizing date, time, and text formats.

Checking values

Checking for incorrect or missing values.

Adding columns

Adding calculated columns if required (like total fare, duration, etc.).

Once the data was cleaned and ready, it was imported into SQL for analysis and later connected to Power BI for visualization.

5. SQL Analysis: Key Analytical Questions

SQL was used to extract insights and answer various analytical questions from the Ola dataset. Below are the SQL questions solved during the analysis:

- Retrieve all successful bookings.
- Find the average ride distance for each vehicle type.
- Get the total number of rides cancelled by customers.
- List the top 5 customers who booked the highest number of rides.
- Get the number of rides cancelled by drivers due to personal and car-related issues.
- Find the maximum and minimum driver ratings for Prime Sedan bookings.
- Retrieve all rides where payment was made using UPI.
- Find the average customer rating per vehicle type.
- Calculate the total booking value of rides completed successfully.
- List all incomplete rides along with the reason.

Summary of SQL Findings

Booking Status

The dataset showed a clear distinction between successful, cancelled, and incomplete bookings.

Vehicle Usage

Micro and Mini rides had higher usage frequency compared to other vehicle types.

Customer Loyalty

A few customers contributed to a large number of bookings.

Driver Cancellations

Driver-related cancellations were mostly due to personal or car-related issues.

Payment Trends

Online payments, especially through UPI, were common.

Prime Sedan Performance

Prime Sedan rides had high customer and driver ratings on average.

Revenue Estimation

The total booking value and completed rides helped in estimating overall revenue trends.

SQL Questions n Answers

I have all answers n questions in a separate SQL sheet

7. Power BI Dashboard Insights

The Power BI dashboard was created to visually summarize the data and make the insights easy to understand. Below are the Power BI questions and insights covered:

- Ride Volume Over Time – showed how the number of rides changed across days or months.
- Booking Status Breakdown – displayed the percentage of completed, cancelled, and ongoing rides.
- Top 5 Vehicle Types by Ride Distance – compared vehicle performance by total distance.
- Average Customer Ratings by Vehicle Type – analyzed satisfaction levels across ride categories.
- Cancelled Rides Reasons – visualized major causes behind ride cancellations.
- Revenue by Payment Method – highlighted which payment types generated the most income.
- Top 5 Customers by Total Booking Value – identified high-value customers.
- Ride Distance Distribution Per Day – showed how ride lengths varied daily.
- Driver Ratings Distribution – analyzed driver performance trends.
- Customer vs. Driver Ratings – compared how both groups rated each ride experience.

Summary of Power BI Insights:

Ride volume remained steady, with higher demand during peak hours. Most bookings were completed successfully, with relatively few cancellations. Micro and Mini vehicle types had the highest total distance covered. Customer ratings were generally high, especially for Prime Sedan rides. Revenue from online payments, especially UPI, showed consistent growth. A small number of loyal customers accounted for a major portion of total revenue.

8. Key Findings and Recommendations

Key Findings:

- Micro and Mini rides were the most frequently used.
- Digital payments (UPI and wallet) were more common than cash.
- Cancellations were mostly customer-driven, but a few were due to driver or vehicle issues.
- Prime Sedan rides received higher ratings overall.
- Regular customers contributed significantly to total bookings and revenue.

Recommendations:

Continue improving online payment experience and offer digital discounts.

Encourage high-rated drivers through incentives.

Improve ride reliability by minimizing cancellations from both sides.

Maintain focus on high-demand ride types (Micro and Mini).

Introduce loyalty programs for frequent riders.

9. Conclusion

The Ola Data Analysis Project helped uncover important insights about bookings, payments, ratings, and ride trends. Using Excel, SQL, and Power BI, this project demonstrated a complete data analysis workflow — from cleaning and querying data to visualizing insights. The analysis not only highlighted business patterns but also provided actionable recommendations that can improve service quality and customer satisfaction.

Overall, this project strengthened my skills in data analytics and showed how data can be used to make better, evidence-based business decisions.