OLA Data Analyst Project Documentation

SQL Questions:

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

Power BI Questions:

1. Ride Volume Over Time
2. Booking Status Breakdown
3. Top 5 Vehicle Types by Ride Distance
4. Average Customer Ratings by Vehicle Type
5. cancelled Rides Reasons
6. Revenue by Payment Method
7. Top 5 Customers by Total Booking Value
8. Ride Distance Distribution Per Day
9. Driver Ratings Distribution
10. Customer vs. Driver Ratings

Data Columns

1. Date
2. Time
3. Booking_ID
4. Booking_Status
5. Customer_ID
6. Vehicle_Type
7. Pickup_Location
8. Drop_Location
9. V_TAT
10. C_TAT
11. cancelled_Rides_by_Customer
12. cancelled_Rides_by_Driver
13. Incomplete_Rides
14. Incomplete_Rides_Reason
15. Booking_Value
16. Payment_Method
17. Ride_Distance
18. Driver_Ratings
19. Customer_Rating

Summary:

SQL Analysis

The project involves querying a ride-booking database (Ola) to extract key insights using SELECT statements, aggregate functions, GROUP BY, and views. The main objectives include:

1. Successful Bookings – Retrieving all completed rides (Booking_Status = 'Success').
2. Ride Distance Analysis – Calculating the average ride distance for each vehicle type.
3. Cancellations – Counting customer and driver-initiated cancellations, including those due to personal and car-related reasons.
4. Top Customers – Identifying the top 5 customers with the highest number of bookings.
5. Driver Ratings – Finding the maximum and minimum ratings for Prime Sedan bookings.
6. Payment Insights – Filtering rides where payment was made via UPI.
7. Customer Ratings – Computing the average customer rating per vehicle type.
8. Revenue Analysis – Summing up the total booking value of successful rides.
9. Incomplete Rides – Listing rides that were incomplete along with their reasons.

Implementation:

Created views for reusable query results.

Used aggregation functions (AVG, COUNT, SUM, MAX, MIN) to derive insights.

Applied sorting and filtering to identify trends.

Power BI Visualization

The project also includes dashboard creation in Power BI for visual insights:

1. Ride Trends – Line charts for ride volume over time.
2. Booking Status – Pie charts showing success vs. cancellation rates.
3. Vehicle Performance – Bar charts ranking top 5 vehicle types by ride distance.
4. Customer Experience – Comparing average customer ratings per vehicle type.
5. Cancellation Insights – Bar charts highlighting cancellation reasons.
6. Revenue Analysis – Stacked bar charts analyzing revenue by payment method.
7. Customer Value – Leaderboards ranking top customers by total booking value.
8. Ride Distance Trends – Histograms/scatter plots showing daily ride distances.
9. Driver Ratings – Box plots visualizing rating distribution.
10. Rating Comparison – Scatter plots comparing customer vs. driver ratings.

Key Takeaways

1. Data Cleaning & Structuring: Used SQL views for efficient querying.
2. Business Insights: Identified ride trends, cancellation patterns, and high-value customers.
3. Visualization: Power BI dashboards provide an interactive and actionable understanding of ride performance, revenue, and customer behaviour.