



Data Analysis Project

Objective:

The objective of this project is to perform detailed analysis on ride booking data from the OLA platform. Using SQL and Power BI, this project explores booking patterns, ride volumes, cancellations, payment behavior, vehicle usage, and customer-driver feedback to derive actionable business insights.

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

OLA Data Analysis Project

Data Columns

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

SQL Answers:

1. Retrieve all successful bookings:

```
SELECT * FROM successful_bookings;
```

2. Find the average ride distance for each vehicle type:

```
SELECT * FROM Ride_Distance_for_each_vehicle;
```

3. Get the total number of cancelled rides by customers:

```
SELECT * FROM Cancelled_Rides_by_Customers;
```

4. List the top 5 customers who booked the highest number of rides:

```
SELECT * FROM top_5_customers;
```

5. Get the number of rides cancelled by drivers due to personal and car-related issues:

```
SELECT * FROM cancelled_by_drivers_P_C_issues;
```

6. Find the maximum and minimum driver ratings for Prime Sedan bookings:

```
SELECT * FROM max_min_d_rating_PrimeSedan;
```

7. Retrieve all rides where payment was made using UPI:

```
SELECT * FROM All_Rides_Payment_UPI;
```

8. Find the average customer rating per vehicle type:

```
SELECT * FROM average_customer_rating_per_vehicle;
```

9. Calculate the total booking value of rides completed successfully:

```
SELECT * FROM total_sucsessfull_booking_value;
```

10. List all incomplete rides along with the reason:

```
SELECT * FROM incomplete_rides_reasons;
```

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Power BI Answers:- Segregation of the views:-

1. Overall

- Ride Volume Over Time
- Booking Status Breakdown

2. Vehicle Type

- Top 5 Vehicle Types by Ride Distance

3. Revenue

- Revenue by Payment Method
- Top 5 Customers by Total Booking Value
- Ride Distance Distribution Per Day

4. Cancellation

- Cancelled Rides Reasons (Customer)
- cancelled Rides Reasons(Drivers)

5. Ratings

- Driver Ratings
- Customer Ratings

Answers:

- 1. Ride Volume Over Time:** A time-series chart showing the number of rides per day/week.
- 2. Booking Status Breakdown:** A pie or doughnut chart displaying the proportion of different booking statuses (success, cancelled by the customer, cancelled by the driver, etc.).
- 3. Top 5 Vehicle Types by Ride Distance:** A bar chart ranking vehicle types based on the total distance covered.
- 4. Average Customer Ratings by Vehicle Type:** A column chart showing the average customer ratings for different vehicle types.
- 5. cancelled Rides Reasons:** A bar chart that highlights the common reasons for ride cancellations by customers and drivers.
- 6. Revenue by Payment Method:** A stacked bar chart displaying total revenue based on payment methods (Cash, UPI, Credit Card, etc.).
- 7. Top 5 Customers by Total Booking Value:** A leaderboard visual listing customers who have spent the most on bookings.
- 8. Ride Distance Distribution Per Day:** A histogram or scatter plot showing the distribution of ride distances for different Dates.
- 9. Driver Rating Distribution:** A box plot visualizing the spread of driver ratings for different vehicle types.
- 10. Customer vs. Driver Ratings:** A scatter plot comparing customer and driver ratings for each completed ride, analyzing correlations.