Data Analysis Project

Tool Used: SQL

Company Data: OLA Cabs

This project explores practical SQL queries designed to extract specific insights and improve Profits for administrators and enhance Customer experience. We will delve into various scenarios, from tracking successful bookings to analysing ride cancellations and customer feedback, demonstrating how effective querying can drive informed decisions.

1. Retrieving All Successful Bookings

To identify all completed and successful bookings within the system, a view is created to filter records where the **Booking_Status** is 'Success'. This provides a clear overview of operational efficiency.

```
Create View Successful_Bookings As Select * From Bookings Where Booking_Status = 'Success';

Select * From Successful_Bookings;
```

2. Average Ride Distance Per Vehicle Type

This query calculates the average ride distance for each vehicle type, offering valuable insights into vehicle utilisation and efficiency. It helps in understanding which vehicle types are typically used for longer or shorter journeys.

```
Create View Avg_Distance_Covered As Select Vehicle_Type, AVG(Ride_Distance) As Average_Distance From Bookings Group By Vehicle_Type;

Select * From Avg_Distance_Covered;
```

3. Total Rides Cancelled by Customers

Understanding the volume of customer-initiated cancellations is crucial for identifying potential issues with user experience or service delivery. This view quickly aggregates that count.

```
Create View Total_Rides_Cancelled_Customer As Select Count(Booking_Status) From Bookings Where Booking_Status = "Canceled by Customer";

Select * From Total_Rides_Cancelled_Customer;
```

4. Top 5 Customers by Ride Count

Identifying the most frequent customers helps in recognising loyal users and potentially tailoring retention strategies. This query ranks customers by the total number of rides booked.

```
Create View Top_Five_Customers_Rides As Select Customer_ID, count(Booking_ID) As Number_of_Rides From Bookings
Group By Customer_ID Order By count(Booking_ID) DESC Limit 5;

Select * From Top_Five_Customers_Rides;
```

5. Rides Cancelled by Drivers (Personal & Car-Related)

This query specifically targets cancellations initiated by drivers due to personal or car-related issues, providing critical data for driver management and vehicle maintenance planning.

```
Create View Personal_Car_Related_Cancellations As Select Count(Canceled_Rides_by_Driver) As
Personal_Car_Related_Cancels From Bookings Where Canceled_Rides_by_Driver = "Personal & Car related issue";

Select * From Personal_Car_Related_Cancellations;
```

6. Max & Min Driver Ratings for Prime Sedan

Understanding the performance range of drivers operating Prime Sedans is essential for quality control. This query reveals the highest and lowest driver ratings for this specific vehicle type.

```
Create View Max_Min_Driver_Rating AS Select Max(Driver_Ratings) max_rating, Min(Driver_Ratings) min_rating From Bookings Where Vehicle_Type = "Prime Sedan";

Select * From Max_Min_Driver_Rating;
```

7. All Rides with UPI Payments

This query identifies all bookings where the payment method used was UPI, helping to track the popularity and volume of digital payment transactions.

```
Create View UPI_Payment_Rides AS Select * From Bookings Where Payment_Method = "UPI";

Select * From UPI_Payment_Rides;
```

8. Average Customer Rating Per Vehicle Type

Analysing average customer ratings for each vehicle type helps in assessing service quality and identifying areas for improvement for specific vehicle categories.

```
Create View Avg_CustomerRating_Vehicle AS Select Vehicle_Type, ROUND(AVG(Customer_Rating), 2) AS Avg_Rating From Bookings Group By Vehicle_Type;

Select * From Avg_CustomerRating_Vehicle;
```

9. Total Booking Value of Successful Rides

This query calculates the total revenue generated from successfully completed rides, providing a key financial metric for business performance.

```
Create View Total_Booking_Value As Select Sum(Booking_Value) As Total_Value From Bookings Where Incomplete_Rides="No";

Select * From Total_Booking_Value;
```

10.List all incomplete rides along with the reason:

This query gives all the Incomplete rides along with the reason to give insights about how the decision makers can improve the Customer Experience.