



Data Analyst Project

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 | 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 bookings WHERE Booking_Status = 'Success';
```

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

```
SELECT Vehicle_Type, AVG(Ride_Distance) as avg_distance FROM bookings GROUP BY Vehicle_Type;
```

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

```
SELECT COUNT(*) FROM bookings WHERE Booking_Status = 'cancelled by Customer';
```

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

```
SELECT Customer_ID, COUNT(Booking_ID) as total_rides FROM bookings GROUP BY Customer_ID ORDER BY total_rides DESC LIMIT 5;
```

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

```
SELECT COUNT(*) FROM bookings WHERE cancelled_Rides_by_Driver = 'Personal & Car related issue';
```

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

```
SELECT MAX(Driver_Ratings) as max_rating, MIN(Driver_Ratings) as min_rating FROM bookings WHERE Vehicle_Type = 'Prime Sedan';
```

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

```
SELECT * FROM bookings WHERE Payment_Method = 'UPI';
```

8. Find the average customer rating per vehicle type:

```
SELECT Vehicle_Type, AVG(Customer_Rating) as avg_customer_rating FROM bookings GROUP BY Vehicle_Type;
```

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

```
SELECT SUM(Booking_Value) as total_successful_value FROM bookings WHERE Booking_Status = 'Success';
```

10. List all incomplete rides along with the reason:

```
SELECT Booking_ID, Incomplete_Rides_Reason FROM bookings WHERE Incomplete_Rides = 'Yes';
```

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.

SQL Questions & Answers

Create Database Ola;
Use Ola;

#1. Retrieve all successful bookings:

```
Create View Successful_Bookings As  
SELECT * FROM bookings  
WHERE Booking_Status = 'Success';
```

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

```
Create View ride_distance_for_each_vehicle As  
SELECT Vehicle_Type, AVG(Ride_Distance)  
as avg_distance FROM bookings  
GROUP BY Vehicle_Type;
```

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

```
Create View cancelled_rides_by_customers As  
SELECT COUNT(*) FROM bookings  
WHERE Booking_Status = 'cancelled by Customer';
```

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

```
Create View Top_5_Customers As  
SELECT Customer_ID, COUNT(Booking_ID) as total_rides  
FROM bookings  
GROUP BY Customer_ID  
ORDER BY total_rides DESC LIMIT 5;
```

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

```
Create View Rides_cancelled_by_Drivers_P_C_Issues As  
SELECT COUNT(*) FROM bookings  
WHERE cancelled_Rides_by_Driver = 'Personal & Car related issue';
```

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

```
Create View Max_Min_Driver_Rating As  
SELECT MAX(Driver_Ratings) as max_rating,  
MIN(Driver_Ratings) as min_rating  
FROM bookings WHERE Vehicle_Type = 'Prime Sedan';
```

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

```
Create View UPI_Payment As  
SELECT * FROM bookings  
WHERE Payment_Method = 'UPI';
```

#8. Find the average customer rating per vehicle type:

```
Create View AVG_Cust_Rating As  
SELECT Vehicle_Type, AVG(Customer_Rating) as avg_customer_rating  
FROM bookings  
GROUP BY Vehicle_Type;
```

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

```
Create View total_successful_ride_value As  
SELECT SUM(Booking_Value) as total_successful_ride_value  
FROM bookings  
WHERE Booking_Status = 'Success';
```

#10. List all incomplete rides along with the reason:

```
Create View Incomplete_Rides_Reason As  
SELECT Booking_ID, Incomplete_Rides_Reason  
FROM bookings  
WHERE Incomplete_Rides = 'Yes';
```

Retrieve All 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 Rides_cancelled_by_Drivers_P_C_Issues;

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

Select * from Max_Min_Driver_Rating;

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

Select * from UPI_Payment;

#8. Find the average customer rating per vehicle type:

Select * from AVG_Cust_Rating;

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

Select * from total_successful_ride_value;

#10. List all incomplete rides along with the reason:

Select * from Incomplete_Rides_Reason;