# Ola Ride Analytics: Unveiling Insights for Smarter Mobility

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# Ola Ride Analytics: Unveiling Insights for Smarter Mobility

## 1. General Information

This schema outlines the key attributes of a ride-booking system, helping to track booking details, status, customer feedback, cancellations, and more.

1. Date
2. Time
3. Booking ID
4. Booking Status
5. Customer ID
6. Vehicle Type
   - Auto
   - Prime Plus
   - Prime Sedan
   - Mini
   - Bike
   - eBike
   - Prime SUV
7. Pickup Location (Create dummy location points Take any 50 areas from Bangalore)
8. Drop Location (Take from dummy pickup locations)
9. Avg VTAT (Time taken to arrive at the vehicle)
10. Avg CTAT (Time taken to arrive the Customer)
11. Cancelled Rides by Customer
12. Reason for cancelling by Customer

- Driver is not moving towards pickup location
- Driver asked to cancel
- AC is not working (Only for 4-wheelers)
- Change of plans
- Wrong Address

13. Cancelled Rides by Driver

- Personal & Car related issues

- Customer related issue
- The customer was coughing/sick
- More than permitted people in there

14. Incomplete Rides
15. Incomplete Rides Reason
- Customer Demand
- Vehicle Breakdown
- Other Issue
16. Booking Value
17. Ride Distance
18. Driver Ratings
19. Customer Rating

## 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. What is the total count of rides paid for using the UPI payment method?
9. Find the average customer rating per vehicle type?
10. Calculate the total booking value of rides completed successfully?
11. List all incomplete rides along with the reason?
12. What is the total number of incomplete rides grouped by the reason for their incompletion?

## 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?

**SQL Question and Answers:**

**-- 1. Retrieve all successful bookings and its?**

```
create view Successful_Bookings AS
select * from ola
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,
round(Avg(Ride_Distance),2)
as avg_distance from ola
group by Vehicle_Type;
```

**-- 3. Get the total number of cancelled rides by customer?**

```
Create View cancelled_rides_by_customers As
SELECT COUNT(*) FROM ola
```

```
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 ola
GROUP BY Customer_ID
ORDER BY total_rides DESC LIMIT 5;
select * from Top_5_Customers;
```

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

```
create View Rides_canceled_by_Drivers_P_C_Issues As
SELECT COUNT(*) FROM ola
WHERE canceled_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 ola
WHERE Vehicle_Type = 'Prime Sedan';
```

-- 7. Retrieve all rides where payment was made using UPI?

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

**-- 8. What is the total count of rides paid for using the UPI payment method?**

```
CREATE VIEW Paid_by_UPI_View AS
SELECT
    COUNT(Payment_Method) AS Paid_by_UPI
    FROM ola
    WHERE Payment_Method = 'UPI';
```

**-- 9. Find the average customer rating per vehicle type?**

```
Create View AVG_Cust_Rating As
SELECT Vehicle_Type,
    Round(AVG(Customer_Rating),2) as avg_customer_rating
    FROM ola
    GROUP BY Vehicle_Type;
```

**-- 10. 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 ola
    WHERE Booking_Status = 'Success';
```

**-- 11. List all incomplete rides along with the reason?**

```
Create View Incomplete_Rides_Reason As
SELECT
```

```
Booking_ID,
Incomplete_Rides_Reason
FROM ola
WHERE Incomplete_Rides = 'Yes';
```

**-- 12. What is the total number of incomplete rides grouped by the reason for their incompletion?**

```
create View incomplete_rides_grouped_by_the_reason_for_their_incompletion as
SELECT
    count(Booking_ID) as Total_Count,
    Incomplete_Rides_Reason
    FROM ola
    WHERE Incomplete_Rides = 'Yes'
    group by Incomplete_Rides_Reason;
```

**Retrieve All Answers:**

**-- 1. Retrieve all successful bookings and its?**

```
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 customer?**

```
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_canceled_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. What is the total count of rides paid for using the UPI payment method?**

```
SELECT * FROM Paid_by_UPI_View;
```

**-- 9. Find the average customer rating per vehicle type?**

```
SELECT * from AVG_Cust_Rating ;
```

**-- 10. Calculate the total booking value of rides completed successfully?**

```
SELECT * from total_successful_ride_value;
```

**-- 11. List all incomplete rides along with the reason?**

```
SELECT * from Incomplete_Rides_Reason;
```

**-- 12. What is the total number of incomplete rides grouped by the reason for their incompletion?**

```
SELECT* from incomplete_rides_grouped_by_the_reason_for_their_incompletion;
```

## 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.