

# SQL-Based Data Analysis

To complement Power BI visualizations, we used MySQL to extract key insights from the dataset.

1. Retrieve all successful bookings:

```
SELECT * FROM bookings  
  
WHERE Booking_Status = 'Success';
```

INSIGHTS : 62.09% of bookings were successful.

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;
```

INSIGHTS : Auto rides cover significantly shorter distances than other vehicle types.

Vehicle_Type	avg_distance	
Prime Sedan	15.7660	
Bike	15.5423	
Prime SUV	15.2852	
eBike	15.5684	
Mini	15.5381	
Prime Plus	15.4348	
Auto	6.2243	

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

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

INSIGHTS : 10172 of total bookings were cancelled by customers.

COUNT(*)	
10172	

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;
```

INSIGHTS : The top 5 customers account for a significant number of rides, making them high-value users.

Customer_ID	total_rid...	
CID969725	4	
CID340854	4	
CID201733	4	
CID819034	4	
CID315796	3	

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';
```

INSIGHTS : Driver-related cancellations due to personal and car related issues ie,35.49% of total cancellation by drivers significantly impact service reliability.

COUNT(*)
6351

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';
```

INSIGHT : Prime Sedan drivers generally receive high ratings, with a minimum of 3.5 and a maximum of 5.0.

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

```
SELECT * FROM bookings
```

```
WHERE Payment_Method = 'UPI';
```

INSIGHT : UPI payments accounted for 40.39% of total transactions, indicating growing digital adoption.

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;
```

INSIGHT : Prime sedan has comparatively high average customer rating.

Vehicle_Type	avg_customer_rating
Prime Sedan	2.5236051502145918
Bike	2.4897781522044453
Prime SUV	2.453893312662946
eBike	2.469135458721985
Mini	2.485481020711115
Prime Plus	2.473709609735638
Auto	2.478007571508693

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

```
SELECT SUM(Booking_Value) as total_successful_ride_value
```

```
FROM bookings
```

```
WHERE Booking_Status = 'Success';
```

INSIGHT : Total revenue from successful rides - 35M.

10. List all incomplete rides along with the reason:

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

INSIGHT : Cancellations account for 36% of total bookings, with driver-related issues being the major factor.