

DATA ANALYSIS



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Problem Statement

- ◆ Ride-hailing services like Ola have revolutionized urban transportation, offering convenience to millions. Understanding ride patterns, cancellations, and revenue distribution is key to optimizing operations. This project analyzes Ola ride data using SQL and Power BI to uncover insights on ride trends, booking statuses, payment preferences, and customer-driver interactions. By identifying demand patterns and rating trends, this analysis helps enhance service efficiency, customer satisfaction, and business performance.

Objectives

- ◆ Analyze Ride Volume Trends – Examine ride volume over time to identify demand patterns.
- ◆ Understand Booking Status – Analyze successful, canceled, and incomplete rides along with reasons.
- ◆ Evaluate Customer & Driver Ratings – Compare ratings across different vehicle types.
- ◆ Assess Revenue Distribution – Analyze total booking value and revenue by payment methods.
- ◆ Identify Top Customers & Vehicles – Determine high-value customers and top vehicle types by ride distance.

SQL Queries

1. Retrieve all successful bookings:

Create view Successful_bookings as

Select * from bookings where Booking_status="Success"; select * from Successful_bookings;

Date	Time	Booking_ID	Booking_Status	Customer_ID	Vehide_Type	Pickup_Location	Drop_Location
2024-07-25 22:20:00	22:20:00	CNR2940424040	Success	CID225428	Bike	Magadi Road	Varthur
2024-07-30 19:59:00	19:59:00	CNR2982357879	Success	CID270156	Prime SUV	Sahakar Nagar	Varthur
2024-07-02 9:02:00	9:02:00	CNR1797421769	Success	CID939555	Mini	Rajajinagar	Chamarajpet
2024-07-13 4:42:00	4:42:00	CNR8787177882	Success	CID802429	Mini	Kadugodi	Vijayanagar
2024-07-23 9:51:00	9:51:00	CNR3612067560	Success	CID476071	Bike	Tumkur Road	Whitefield
2024-07-29 23:33:00	23:33:00	CNR4787583516	Success	CID923404	Prime Plus	Hosur Road	Jayanagar
2024-07-26 4:03:00	4:03:00	CNR7943634301	Success	CID647026	Prime Plus	Kammanahalli	Rajajinagar
2024-07-27 13:18:00	13:18:00	CNR4524472111	Success	CID540929	Auto	Cox Town	Yelahanka
2024-07-16 9:54:00	9:54:00	CNR8181602032	Success	CID167642	Bike	Indiranagar	MG Road
2024-07-02 10:25:00	10:25:00	CNR8090918544	Success	CID640151	Bike	Magadi Road	HSR Layout
2024-07-05 23:42:00	23:42:00	CNR3196156650	Success	CID243275	Bike	Electronic City	Langford Town
2024-07-09 11:11:00	11:11:00	CNR9975925287	Success	CID162055	Prime SUV	Magadi Road	RT Nagar

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

Create view Avg_rideby_vehicle as

Select vehicle_type, round(avg(ride_distance),2) as Average_Distance from bookings group by vehicle_type;

select * from Avg_rideby_vehicle;

vehide_type	Average_Distance
Prime Sedan	15.76
Bike	15.53
Prime SUV	15.27
eBike	15.58
Mini	15.51
Prime Plus	15.45
Auto	6.24

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

Create view Rides_cancelled_bycustomers as

Select count(*) as Total_cancelled_rides from bookings where Booking_status ="Canceled by Customer";

Select * from Rides_cancelled_bycustomers;

Total_cancelled_rides
10499

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

Create view Top5customers_id as

```
select customer_id, count(Booking_id) as Rides_taken from bookings
```

```
group by customer_id order by Rides_taken desc limit 5;
```

```
select * from Top5customers_id;
```

	customer_id	Rides_taken
►	CID954071	5
	CID539191	4
	CID189965	4
	CID268274	4
	CID952434	4

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

Create view Rides_Cancelled_by_driver as

Select Count(*) as Rides_Cancelled_by_driver from bookings where Booking_status
="Canceled by Driver" and Canceled_Rides_by_Driver="Personal & Car related issue";

select * from Rides_Cancelled_by_driver;

	Rides_Cancelled_by_driver
▶	6542



DATA VISUALIZATION





OLA

Overall

Vehicle Type

Revenue

Cancellation

Ratings

Total Bookings

20407

Total Bookings Value

7M

Date

01-07-2024...

01-07-2024...

01-07-2024...

01-07-2024...

01-07-2024...

01-07-2024...

01-07-2024...

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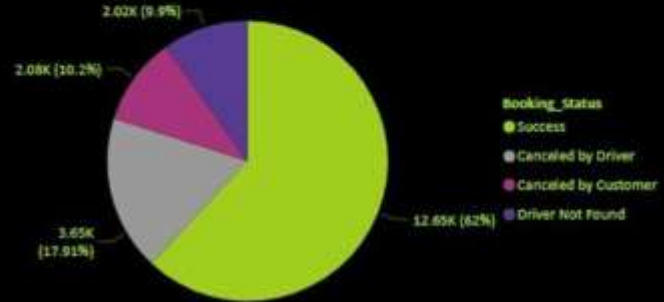
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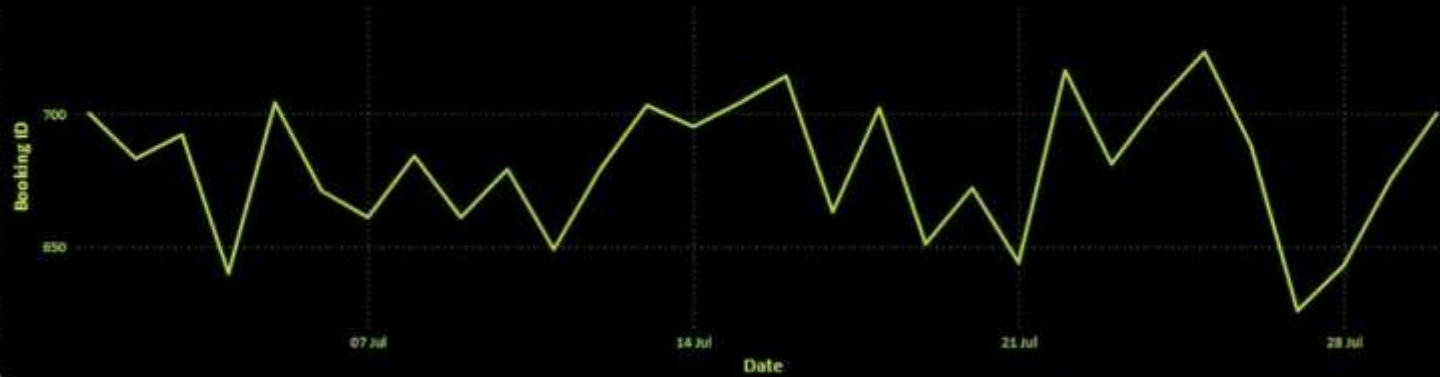
01-07-2024...

01-07-2024...

Booking Status Breakdown



Ride Volume Over Time



[Overall](#)[Vehicle Type](#)[Revenue](#)[Cancellation](#)[Ratings](#)

Vehicle Type	Total Booking Value	Success Booking Value	Avg. Distance Travelled	Total Distance Travelled
 Prime Sedan	1.67M	1.06M	24.28	45K
 Prime SUV	1.58M	0.96M	25.07	45K
 Prime Plus	1.54M	0.93M	24.68	41K
 Mini	1.57M	0.97M	25.02	45K
 Auto	1.59M	0.99M	10.00	18K
 Bike	1.58M	0.99M	25.70	48K
 E-Bike	1.62M	0.99M	25.16	47K



OLA

Overall

Vehicle Type

Revenue

Cancellation

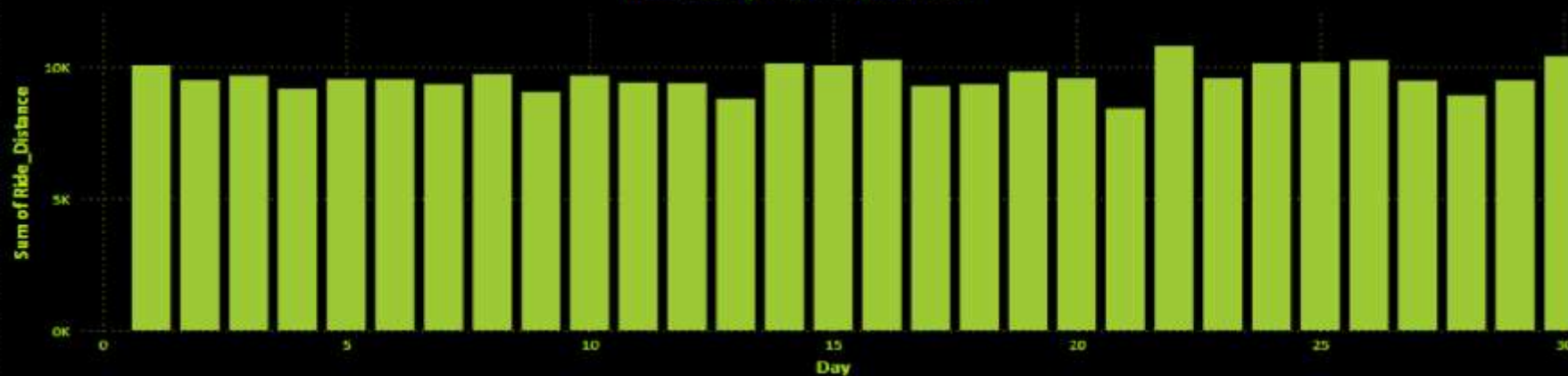
Ratings

Revenue By Payment Method



Customer_ID	Sum of Booking_Value
Total	17010

Revenue By Payment Method





OLA

Overall

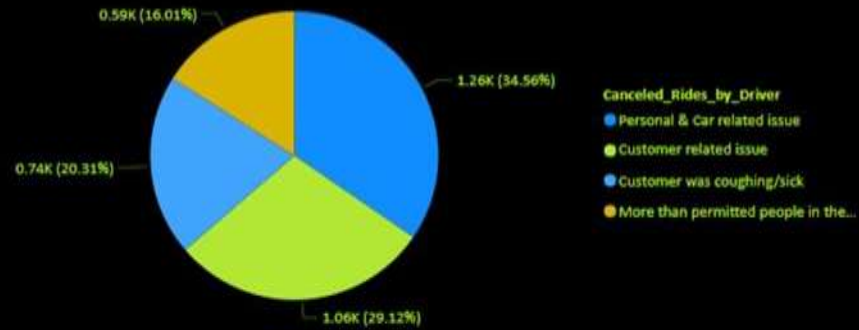
Vehicle Type

Revenue

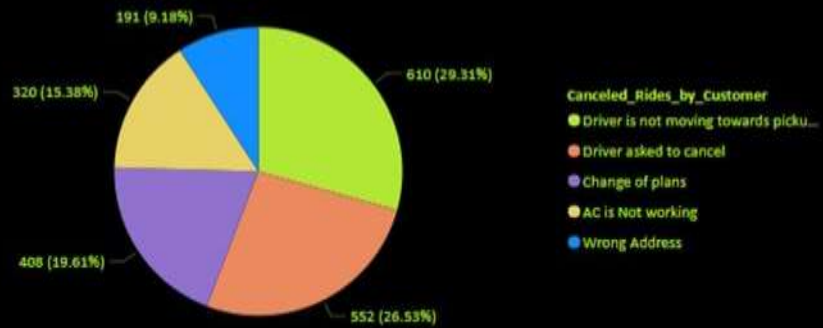
Cancellation

Ratings

Canceled Rides by Drivers



Canceled Rides by Customers



Total Bookings

20407

Success Bookings

12652

Canceled Bookings

5735

Cancellation Rate

28.10



Overall

Vehicle Type

Revenue







Cancellation

Ratings

Driver Ratings

						
Prime Sedan	Prime SUV	Prime Plus	Mini	Auto	Bike	E-Bike
4.00	4.00	4.01	3.99	3.99	3.99	4.00

Customer Ratings

						
Prime Sedan	Prime SUV	Prime Plus	Mini	Auto	Bike	E-Bike
3.99	3.98	4.00	4.02	4.00	3.98	3.98

THANK YOU