OLA DATA ANALYSIS

SQL Project

Problem Statement

The booking platform faces significant challenges in operational efficiency and customer satisfaction. High cancellation rates, driven by driver unavailability (17.91%) and personal or vehicle-related issues, lead to lost revenue and diminished user trust. Demand fluctuations further exacerbate the situation, as inadequate resource allocation during peak periods results in missed opportunities. Additionally, low customer ratings for specific vehicle types highlight dissatisfaction that could harm long-term retention and brand loyalty.

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

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

	vehicle_type character varying (50)	average numeric
1	eBike	15.5805885529157667
2	Auto	6.2380887834632328
3	Bike	15.5330787068612740
4	Prime Sedan	15.7649391678429791
5	Prime Plus	15.4474739919766098
6	Mini	15.5101017042330951
7	Prime SUV	15.2745138178096213

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#2. Retrieve all successful bookings:

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

	date date	time time without time zone	booking_id character varying (50)	booking_status character varying (50)	customer_id character varying (50)	vehicle_type character varying (50)	pickup_location character varying (255)	drop_location character varying (255)	v_tat character varying (
1	2024-07-25	22:20:00	CNR2940424040	Success	CID225428	Bike	Magadi Road	Varthur	203
2	2024-07-30	19:59:00	CNR2982357879	Success	CID270156	Prime SUV	Sahakar Nagar	Varthur	238
3	2024-07-02	09:02:00	CNR1797421769	Success	CID939555	Mini	Rajajinagar	Chamarajpet	252
4	2024-07-13	04:42:00	CNR8787177882	Success	CID802429	Mini	Kadugodi	Vijayanagar	231
5	2024-07-23	09:51:00	CNR3612067560	Success	CID476071	Bike	Tumkur Road	Whitefield	133
6	2024-07-29	23:33:00	CNR4787583516	Success	CID923404	Prime Plus	Hosur Road	Jayanagar	35
7	2024-07-26	04:03:00	CNR7943634301	Success	CID647026	Prime Plus	Kammanahalli	Rajajinagar	238
8	2024-07-27	13:18:00	CNR4524472111	Success	CID540929	Auto	Cox Town	Yelahanka	126
9	2024-07-16	09:54:00	CNR8181602032	Success	CID167642	Bike	Indiranagar	MG Road	70
10	2024-07-02	10:25:00	CNR8090918544	Success	CID640151	Bike	Magadi Road	HSR Layout	126
11	2024-07-05	23:42:00	CNR3196156650	Success	CID243275	Bike	Electronic City	Langford Town	140
12	2024-07-09	11:11:00	CNR9975925287	Success	CID162055	Prime SUV	Magadi Road	RT Nagar	42
13	2024-07-12	14:44:00	CNR1591113431	Success	CID902781	eBike	Koramangala	Sarjapur Road	245
14	2024-07-11	20:42:00	CNR3650331573	Success	CID217093	eBike	Basavanagudi	Hulimavu	84
15	2024-07-08	22:33:00	CNR6013805089	Success	CID817034	Prime Sedan	Padmanabhanagar	Jayanagar	168
16	2024-07-03	18:20:00	CNR9832070187	Success	CID655872	Bike	Koramangala	BTM Layout	231
17	2024-07-03	21:17:00	CNR5620539253	Success	CID290480	Prime Plus	Mysore Road	Sahakar Nagar	56
18	2024-07-19	21:18:00	CNR4443921904	Success	CID654618	Mini	Tumkur Road	Koramangala	231
19	2024-07-25	03:44:00	CNR7194303296	Success	CID538245	Mini	Mysore Road	Hennur	175
20	2024-07-15	17:11:00	CNR6494005067	Success	CID805360	Auto	Yelahanka	Malleshwaram	84
21	2024-07-30	19:44:00	CNR6805579107	Success	CID810214	Prime SUV	Indiranagar	Indiranagar	35
22	2024-07-27	06:18:00	CNR7979458138	Success	CID978509	eBike	Frazer Town	Indiranagar	189
23	2024-07-23	12:56:00	CNR9820692957	Success	CID625327	Prime Sedan	Koramangala	Hosur Road	49
24	2024-07-08	11:52:00	CNR4094067439	Success	CID896062	Prime Sedan	Majestic	Jayanagar	77
25	2024-07-14	05:25:00	CNR7142279862	Success	CID378034	eBike	Yeshwanthpur	JP Nagar	210

Total rows: 63967   Query complete 00:00:00.421   CRLF   Ln 46, Col 25

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#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';
Select * from cancelled_rides_by_customers;
```

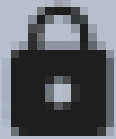|	count bigint 🔒
1	10499

#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) FROM bookings
GROUP BY Customer_ID
ORDER BY total_rides DESC
LIMIT 5;
Select * from Top_5_Customers;
```

	customer_id character varying (50) 🔒	cnt bigint 🔒
1	CID954071	5
2	CID387617	4
3	CID356460	4
4	CID836942	4
5	CID309168	4

#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';
Select * from Rides_cancelled_by_Drivers_P_C_Issues;
```

	count bigint 🔒
1	6542

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

```
Create View Max_Min_Driver_Rating As
SELECT MAX(Driver_Ratings) ,MIN(Driver_Ratings)FROM bookings
WHERE Vehicle_Type = 'Prime Sedan';
Select * from Max_Min_Driver_Rating;
```

	max text 🔒	min text 🔒
1	5	3

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

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Create View UPI_Payment As
select date, booking_id, customer_id,
Vehicle_Type, payment_method from
RideBookings
where Payment_Method='UPI'
Select * from UPI_Payment;

	date date	booking_id [PK] character varying (50)	customer_id character varying (50)	vehicle_type character varying (50)	payment_method character varying (50)
1	2024-07-30	CNR2982357879	CID270156	Prime SUV	UPI
2	2024-07-13	CNR8787177882	CID802429	Mini	UPI
3	2024-07-27	CNR4524472111	CID540929	Auto	UPI
4	2024-07-16	CNR8181602032	CID167642	Bike	UPI
5	2024-07-02	CNR8090918544	CID640151	Bike	UPI
6	2024-07-09	CNR9975925287	CID162055	Prime SUV	UPI
7	2024-07-19	CNR4443921904	CID654618	Mini	UPI
8	2024-07-25	CNR7194303296	CID538245	Mini	UPI
9	2024-07-15	CNR6494005067	CID805360	Auto	UPI
10	2024-07-14	CNR7142279862	CID378034	eBike	UPI
11	2024-07-03	CNR5176704322	CID296026	Prime Plus	UPI
12	2024-07-10	CNR7547352327	CID976231	Prime Plus	UPI
13	2024-07-06	CNR1568684278	CID709612	Prime Plus	UPI
14	2024-07-17	CNR1050003752	CID993137	Bike	UPI
15	2024-07-01	CNR9758857830	CID528642	Prime Plus	UPI
16	2024-07-02	CNR8080410192	CID416746	eBike	UPI
17	2024-07-18	CNR7825941026	CID234007	Mini	UPI
18	2024-07-22	CNR9148580255	CID164393	Prime SUV	UPI
19	2024-07-06	CNR7486448495	CID931462	Auto	UPI
20	2024-07-29	CNR7924302885	CID517661	Auto	UPI
21	2024-07-16	CNR2830899440	CID808607	Mini	UPI
22	2024-07-17	CNR9027465661	CID737388	Prime Sedan	UPI
23	2024-07-07	CNR2149029235	CID596869	Auto	UPI
24	2024-07-03	CNR8836460204	CID716037	eBike	UPI
25	2024-07-11	CNR3697318609	CID915228	Bike	UPI

Total rows: 25881   Query complete 00:00:00.187

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

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

	sum numeric 🔒
1	35080467.00

#9. 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';
Select * from Incomplete_Rides_Reason;
```

	booking_id [PK] character varying (50)	incomplete_rides_reason character varying (255)
1	CNR5176704322	Customer Demand
2	CNR9312632867	Vehicle Breakdown
3	CNR7924302885	Customer Demand
4	CNR1640228587	Other Issue
5	CNR7623690602	Other Issue
6	CNR9590311980	Customer Demand
7	CNR5863244684	Customer Demand
8	CNR9526078867	Customer Demand
9	CNR7154043084	Customer Demand
10	CNR3193710797	Other Issue
11	CNR7073850950	Customer Demand
12	CNR9952584604	Customer Demand
13	CNR5433575259	Vehicle Breakdown
14	CNR3575066041	Vehicle Breakdown
15	CNR7537935962	Customer Demand
16	CNR2722435581	Vehicle Breakdown
17	CNR5495479048	Other Issue
18	CNR6585703917	Customer Demand
19	CNR3178581771	Customer Demand
20	CNR7582255360	Vehicle Breakdown
21	CNR8535011317	Customer Demand
22	CNR5106611023	Other Issue
23	CNR7127343811	Vehicle Breakdown
24	CNR6315774432	Other Issue
25	CNR7333194442	Other Issue

Total rows: 3926   Query complete 00:00:00.169