UBER\_bookings Project

# SQL

1. **Booking Analysis**
   1. Total number of bookings
   2. Bookings by status (Success, Cancelled by Customer/Driver, Incomplete)
   3. Weekly trend of successful bookings
   4. Weekend vs Weekday booking volume
   5. Bookings by vehicle type
2. **Customer Behavior**
   1. Top 10 customers by number of rides
   2. Average ride distance and booking value per customer
   3. Cancellation % per customer
3. **Driver Behavior**
   1. Avg customer ratings by vehicle type
   2. Average VTAT and CTAT by vehicle type
4. **Location Analysis**
   1. Top 10 pickup and drop locations
   2. Popular area pairs (pickup-drop)
5. **Revenue Insights**
   1. Total revenue
   2. Revenue by vehicle type
   3. Average booking value by status
   4. High-value rides (above ₹1000)
6. **Match Day Analysis**
   1. Compare bookings on match days vs non-match days
   2. Revenue and ride distance on match days
7. **Operational Metrics**
   1. Most common reasons for cancellations/incomplete rides

# Power BI

Segregation of the views:

**1. Overall**

- Ride Volume Over Time

- Booking Status Breakdown

**2. Vehicle Type**

- T op 5 Vehicle Types by Ride Distance

**3. Revenue**

- Revenue by Payment Method

- T op 5 Customers by T otal 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, analysing correlations.

# SQL - QUERIES

**1.a - Total number of bookings**

select count(\*) as Total\_bookings from booking

**1.b - Bookings by status (Success, Cancelled by Customer/Driver, Incomplete)**

select Booking\_status , count(\*) as Total from booking

group by Booking\_status

order by Total Desc;

**1.c - Weekly trend of successful bookings**

select Week(date) As week\_number,

count(\*) as successful\_bookings

from booking

WHERE booking\_status="Success"

GROUP BY week\_number

ORDER BY week\_number;

**1.d - #Weekend vs Weekday booking volume**

select

CASE

WHEN dayname(Date) in (1,7) then 'WEEKEND'

ELSE 'WEEKDAY'

End as Day\_type,

count(\*) as booking\_count

from booking

group by Day\_type;

**1.e - Bookings by vehicle type**

select vehicle\_type,count(\*) as Bookings\_by\_vehicle\_type

from booking

group by vehicle\_type

order by Bookings\_by\_vehicle\_type desc;

**2.a - Top 10 customers by number of rides**

select Customer\_ID , count(\*) as No\_of\_rides

from booking

where booking\_status='Success'

group by Customer\_ID

order by No\_of\_rides Desc limit 10;

**2.b - Average ride distance and booking value per customer**

select Customer\_ID,

AVG (ride\_distance) as Avg\_distance,

AVG (booking\_value) as Avg\_booking\_value

from booking

where booking\_status='Success'

group by Customer\_ID

order by Avg\_distance Desc,Avg\_booking\_value Desc;

**2.c - Cancellation % per customer**

SELECT Customer\_ID, COUNT() AS Total\_bookings,

SUM(CASE WHEN Booking\_status = 'Cancelled by Customer' THEN 1 ELSE 0 END) AS cancellations,

round(100 \* SUM(CASE WHEN Booking\_status = 'Cancelled by Customer' THEN 1 ELSE 0 END) / COUNT(),2) AS cancellation\_percentage

FROM booking

GROUP BY Customer\_ID

ORDER BY cancellations desc,cancellation\_percentage DESC;

**3.a - Avg customer ratings by vehicle type**

select vehicle\_type ,

round(avg (customer\_rating),2)as Customer\_rating

from booking group by vehicle\_type

order by Customer\_rating desc;

**3.b - Average VTAT and CTAT by vehicle type**

select vehicle\_type,

round(avg(Avg\_VTAT),2) as AVG\_VTAT,

round(avg(Avg\_CTAT),2) as AVG\_CTAT

from booking group by vehicle\_type;

**4.a - Top 10 pickup locations**

select Pickup\_location,count(\*) as Pickups

from booking group by Pickup\_location

order by Pickups DESC limit 10;

**4.b - Popular area pairs (pickup-drop)**

select Pickup\_location,Drop\_location,count(\*) as rides

from booking where booking\_status='Success'

group by Pickup\_location,Drop\_location

order by rides desc limit 10;

**5.a - Total revenue**

select sum(booking\_value) as Total\_revenue

from booking

where booking\_status='Success';

**5.b - Revenue by vehicle type**

select vehicle\_type,

round(sum(booking\_value),3) as Total\_revenue

from booking group by vehicle\_type

order by Total\_revenue desc;

**5.c - Average booking value by status**

select booking\_status,

avg(booking\_value) as AVG\_booking\_value

from booking

group by Booking\_status

order by AVG\_booking\_value desc;

**5.d - High-value rides (above ₹1000****) ,Customer id , vehicle type**

select customer\_ID,vehicle\_type

from booking

where (booking\_value>1000) and booking\_status='Success';

**6.a - Compare successfull bookings on match days vs non-match days**

select

case

when date in ('2023-07-06','2023-07-13', '2023-07-20','2023-07-27') then 'Match day'

else 'Non-Match day'

end as day\_type, count(\*) as Bookings\_days

from booking

where booking\_status='Success'

group by day\_type;

**6.b - Revenue and ride distance on match days**

select 'Match day' as Day\_type,

round(avg(Ride\_distance),3)as Avg\_ride\_distance,

round(sum(booking\_value),3) as Total\_revenue

from booking

where date in('2023-07-06','2023-07-13', '2023-07-20','2023-07-27')

group by day\_type;

**7.a - Most common reasons for incomplete rides**

select Incomplete\_Rides\_Reason,

count(\*) as Incomplete\_Count

from booking where booking\_status='Incomplete'

group by Incomplete\_Rides\_Reason

order by Incomplete\_Count desc;