**DATABASE 🡪** cab\_booking

**TABLES 🡪**

1. **Customers**
2. customer\_id INT AUTO\_INCREMENT PRIMARY KEY
3. customer\_name VARCHAR(50) NOT NULL
4. email VARCHAR(50)
5. c\_phone VARCHAR(10) NOT NULL
6. is\_active ENUM YES/NO
7. **Drivers**
8. driver\_id INT AUTO\_INCREMENT PRIMARY KEY
9. driver\_name VARCHAR(50) NOT NULL
10. d\_phone VARCHAR(50) NOT NULL
11. driving\_licence VARCHAR(20) NOT NULL
12. cab\_id FOREIGN KEY (1 to 1, One driver 🡪 One type of cab)
13. is\_active ENUM YES/NO
14. **Cabs**
15. cab\_id INT AUTO\_INCREMENT PRIMARY KEY
16. cab\_type VARCHAR(15)
17. **Bookings**
18. booking\_id INT AUTO\_INCREMENT PRIMARY KEY
19. customer\_id FOREIGN KEY (1 to Many)
20. driver\_id FOREIGN KEY (1 to Many)
21. booking\_date DATE NOT NULL
22. booking\_time TIMESTAMP NOT NULL
23. **Trip\_Details**
24. trip\_id INT AUTO\_INCREMENT PRIMARY KEY
25. booking\_id FOREIGN KEY (1 to 1)
26. pick\_up\_location TEXT NOT NULL
27. drop\_off\_location TEXT NOT NULL
28. trip\_start TIMESTAMP NOT NULL
29. fb\_id FOREIGN KEY (1 to 1)
30. payment\_id FOREIGN KEY (1 to 1)
31. Status ENUM Completed/Canceled NOT NULL
32. **Payments**
33. payment\_id INT AUTO\_INCREMENT PRIMARY KEY
34. amount NUMERIC/DECIMAL
35. payment\_date DATE NOT NULL
36. Status ENUM Paid/Not Paid
37. **Feedback**
38. fb\_id INT AUTO\_INCREMENT PRIMARY KEY
39. customer\_id FK (1 to Many)
40. driver\_id FK (1 to Many)
41. booking\_id FK (1 to 1)
42. rating INT DEFAULT 0
43. review TEXT

Problem Statement:

**Customer and Booking Analysis**   
1. Identify customers who have completed the most bookings. What insights can you draw about their behavior?   
2. Find customers who have canceled more than 30% of their total bookings. What could be the reason for frequent cancellations?   
3. Determine the busiest day of the week for bookings. How can the company optimize cab availability on peak days?

**Driver Performance & Efficiency**   
1. Identify drivers who have received an average rating below 3.0 in the past three months. What strategies can be implemented to improve their performance?   
2. Find the top 5 drivers who have completed the longest trips in terms of distance. What does this say about their working patterns?   
3. Identify drivers with a high percentage of canceled trips. Could this indicate driver unreliability?

**Revenue & Business Metrics**   
1. Calculate the total revenue generated by completed bookings in the last 6 months. How has the revenue trend changed over time?   
2. Identify the top 3 most frequently traveled routes based on PickupLocation and DropoffLocation. Should the company allocate more cabs to these routes?   
3. Determine if higher-rated drivers tend to complete more trips and earn higher fares. Is there a direct correlation between driver ratings and earnings?

**Operational Efficiency & Optimization**   
1. Analyze the average waiting time (difference between booking time and trip start time) for different pickup locations. How can this be optimized to reduce delays?   
2. Identify the most common reasons for trip cancellations from customer feedback. What actions can be taken to reduce cancellations?   
3. Find out whether shorter trips (low-distance) contribute significantly to revenue. Should the company encourage more short-distance rides?

**Comparative & Predictive Analysis**   
1. Compare the revenue generated from 'Sedan' and 'SUV' cabs. Should the company invest more in a particular vehicle type?   
2. Predict which customers are likely to stop using the service based on their last booking date and frequency of rides. How can customer retention be improved?   
3. Analyze whether weekend bookings differ significantly from weekday bookings. Should the company introduce dynamic pricing based on demand?