

Quick Commerce SQL Interview Assignment

This document is designed as a practical SQL and problem-solving assessment for candidates interviewing for analytics or data roles in the quick commerce domain.

Sample Table: `orders`

order_id	customer_id	order_date	delivery_time (mins)	payment_method	city	order_value	status
101	C001	2025-08-01	32	UPI	Bengaluru	450	Delivered
102	C002	2025-08-01	25	COD	Mumbai	799	Delivered
103	C003	2025-08-02	40	Card	Delhi	1200	Cancelled
104	C001	2025-08-02	22	UPI	Bengaluru	350	Delivered
105	C004	2025-08-03	55	UPI	Hyderabad	999	Delivered
106	C005	2025-08-03	18	Wallet	Bengaluru	200	Delivered
107	C002	2025-08-04	29	COD	Mumbai	650	Delivered
108	C006	2025-08-04	70	Card	Delhi	1450	Delivered
109	C007	2025-08-05	33	UPI	Chennai	550	Delivered
110	C008	2025-08-05	45	UPI	Bengaluru	899	Cancelled

SQL Questions

Basic Level (4 Questions)

1. Write a query to fetch all delivered orders.
2. Find the total number of orders placed in Bengaluru.
3. Get distinct payment methods used by customers.
4. Retrieve the average delivery time for all delivered orders.

Intermediate Level (4 Questions)

1. Write a query to calculate total revenue generated city-wise (only for delivered orders).
2. Find the top 2 customers with the highest total order value.
3. Write a query to find the percentage of cancelled orders out of total orders.
4. Calculate the average order value grouped by payment method.

Advanced Level (2 Questions)

1. Find the repeat customers (customers with more than 1 order) and their total spend.
2. Identify the city with the fastest average delivery time and the one with the slowest.

Problem-Solving & Critical Thinking Questions

1. **Operational Efficiency:** If delivery time consistently exceeds 45 minutes in a city, what operational problems could this indicate? How would you use the data to suggest improvements?
2. **Customer Retention:** Based on cancellation trends, how would you design an analysis to identify customers at high risk of churn?
3. **Business Growth:** Suppose management wants to introduce a loyalty program. Using this dataset, what metrics would you track to measure the program's success?
4. **Revenue Optimization:** If UPI orders have lower average order value compared to card orders, what hypotheses can you form? How would you test them with data?
5. **Critical Thinking Scenario:** Imagine Bengaluru has the highest order volume but also the highest cancellations. As a data lead, what deeper analyses would you run before presenting this insight to leadership?

Instructions for Candidate

- Use **SQL queries** for the technical part.
- Provide **written reasoning** for the problem-solving questions.
- Be clear in assumptions (e.g., only consider delivered orders for revenue).
- The goal is not just coding but showcasing **analytical thinking, domain understanding, and storytelling with data**.