

15 SQL interview questions

From easy to medium to hard

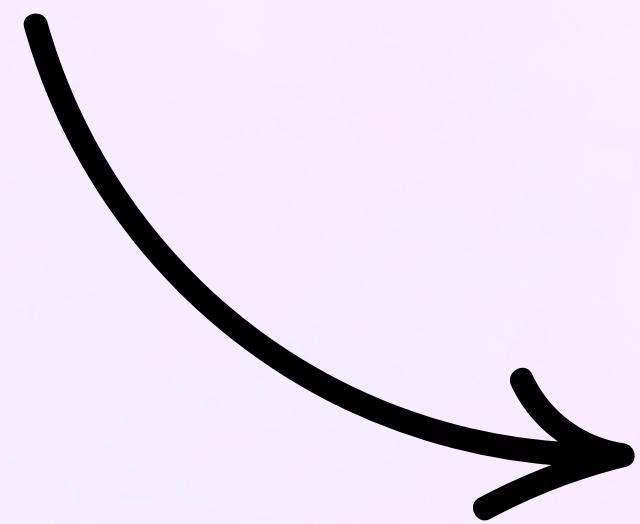


Dawn Choo

**Applying to
Data Analyst or
Data Science or
Data Engineering jobs?**

**You will get one (or more)
SQL interviews.**

Save these for practice!



**Or practice them live on Interview Master
www.InterviewMaster.ai**

1 Airbnb Host Response Times

Easy

Scenario: As a Data Analyst on the Airbnb Stays team, you are tasked with evaluating host response times to guest inquiries. Your team is focused on understanding how quickly hosts are responding to improve the guest experience.

You have one table. **fct_guest_inquiries** captures individual guest inquiries sent to hosts, including the response time and date of inquiry.

SAMPLE DATA

fct_guest_inquiries

inquiry_id	host_id	guest_id	inquiry_date	response_time_hours	inquiry_id
1	101	201	2024-01-01	0.5	1
2	101	202	2024-01-05	1	2
3	102	203	2024-01-10	2.5	3
4	103	204	2024-01-16	3	4
5	101	205	2024-01-18	1.5	5

1

Airbnb Host Response Times

Easy

QUESTION 1

What is the minimum host response time in hours for guest inquiries in January 2024? This metric will help identify if any hosts are setting an exceptionally quick response standard.

QUESTION 2

For guest inquiries made in January 2024, what is the average host response time rounded to the nearest hour? This average will provide insight into overall host responsiveness.

QUESTION 3

List the inquiry_id and response_time_hours for guest inquiries made between January 16th and January 31st, 2024 that took longer than 2 hours to respond. This breakdown will help pinpoint hosts with slower response times.

Try this question at interviewmaster.ai/question/stays-host-communication-response-time-performance

2

Amazon Prime Video Content Performance

Easy

Scenario: As a Product Analyst on the Prime Video team, you are evaluating content engagement across various movie and show categories. Your team aims to identify which genres are most engaging to viewers to prioritize content acquisition & enhance recommendation strategies.

You have 1 table. **content_views_daily_agg** tracks daily aggregated view counts for different types of content.

SAMPLE DATA

content_views_daily_agg

content_id	category	view_date	views
101	Action	2024-07-15	60000
101	Action	2024-08-05	50000
	Action	2024-09-10	300000
	Action	2024-09-20	250000
	Drama	2024-08-12	40000

2

Amazon Prime Video Content Performance

Easy

QUESTION 1

What is the aggregated view events across each content category in August 2024? This information will help the Prime Video team understand which content genres are engaging users during that month.

QUESTION 2

Which content categories accumulated over 100,000 total views during the third quarter of 2024? This analysis will help identify the genres that are attracting a high volume of viewer engagement.

QUESTION 3

In September 2024, for content categories that received more than 500,000 aggregated views, what is the total views for the month for each content category?

Try this question at interviewmaster.ai/question/prime-video-content-performance-by-category

3 Apple Supplier Performance

Medium

Scenario: As a Data Analyst on the Supply Chain Team, you are tasked with assessing supplier performance to ensure reliable delivery of critical components. Your goal is to identify the most active suppliers, understand which suppliers dominate in specific manufacturing regions, and pinpoint any gaps in supply to the Asia region.

You have 2 tables: **supplier_deliveries** and **suppliers**.

- The **supplier_deliveries** table records each component delivery made by a supplier, including the delivery date, number of components, and region.
- The **suppliers** table contains basic information about each supplier, including their ID and name.

SAMPLE DATA

supplier_deliveries

supplier_id	delivery_date	component_count	manufacturing_region	supplier_id	delivery_date
101	2024-10-05	1500	North America	101	2024-10-05
102	2024-10-12	2200	Asia	102	2024-10-12
103	2024-10-19	1800	Europe	103	2024-10-19
101	2024-10-26	1200	North America	101	2024-10-26
104	2024-10-08	2500	Asia	104	2024-10-08

suppliers

supplier_id	supplier_name
101	Alpha Components
102	Beta Electronics
103	Gamma Materials
104	Delta Manufacturing
105	Epsilon Systems

3 Apple Supplier Performance

Medium

QUESTION 1

We need to know who our most active suppliers are. Identify the top 5 suppliers based on the total volume of components delivered in October 2024.

QUESTION 2

For each region, find the supplier ID that delivered the highest number of components in November 2024. This will help us understand which supplier is handling the most volume per market.

QUESTION 3

We need to identify potential gaps in our supply chain for Asia. List all suppliers by name who have not delivered any components to the 'Asia' manufacturing region in December 2024.

Try this question at interviewmaster.ai/question/supplier-performance-metrics

4 ChatGPT User Query Patterns

Medium

Scenario: As a Product Analyst on the ChatGPT team, you are tasked with understanding user engagement patterns across different knowledge domains. Your team is particularly interested in identifying the proportion of queries related to technology and science, understanding monthly query volumes, & finding the most active users.

You have 2 tables: **fct_queries** and **dim_users**.

- The **fct_queries** table stores each user query along with its timestamp and associated domain (e.g., technology, science).
- The **dim_users** table contains user profile information including user ID and name.

SAMPLE DATA

fct_queries

query_id	user_id	query_text	query_domain	query_timestamp	delivery_date
1	1	How does ChatGPT work?	technology	2024-07-02 9:15:00	2024-10-05
2	2	What is the latest discovery in astrophysics?	science	2024-07-15 12:00:00	2024-10-12
3	3	Tell me a joke	entertainment	2024-07-20 16:30:00	2024-10-19
4	1	Explain neural networks	technology	2024-08-01 10:05:00	2024-10-26
5	2	Quantum mechanics basics	science	2024-08-03 11:00:00	2024-10-08

dim_users

user_id	first_name	last_name
1	Alice	Smith
2	Bob	Johnson
3	Charlie	Lee
4	Dana	Brown
5	Evan	Davis

4 ChatGPT User Query Patterns

Medium

QUESTION 1

What percentage of user queries in July 2024 were related to either 'technology' or 'science' domains?

QUESTION 2

Calculate the total number of queries per month in Q3 2024. Which month had the highest number of queries?

QUESTION 3

Identify the top 5 users with the most queries in August 2024 by their first and last name. We want to interview our most active users and this information will be used in our outreach to these users.

Try this question at interviewmaster.ai/question/chatgpt-user-engagement-and-query-patterns

5 WhatsApp Call and Group Chat Features

Hard

Scenario: You are a Data Scientist on the WhatsApp consumer experience team focusing on enhancing user interaction with call and group chat features. Your team aims to understand user engagement patterns with family-focused group chats, average call durations, and group chat participation levels.

You have 2 tables: **fct_user_calls** and **fct_group_chats**.

- The **fct_user_calls** table logs individual call events made by users, including the date and duration of each call.
- The **fct_group_chats** table tracks group chat participation, including the user who created the chat, its name, and when it was created.

SAMPLE DATA

fct_user_calls

call_id	user_id	call_date	call_duration
101	1	2024-05-03	120
102	2	2024-05-07	300
103	1	2024-05-15	180
104	3	2024-05-20	60
105	2	2024-05-25	200

fct_group_chats

chat_id	user_id	chat_name	chat_creation_date
1001	1	My Family Chat	2024-04-10
1002	2	Work Friends	2024-04-11
1003	3	Family Reunion	2024-04-12
1004	4	Book Club	2024-05-01
1005	1	Family Ties	2024-05-03

5

WhatsApp Call and Group Chat Features

Hard

QUESTION 1

How many distinct users have participated in group chats with names containing the word "family", where the chat was created in April 2024? This analysis will inform product managers about user engagement trends with family-focused chat groups.

QUESTION 2

To better understand user call behavior, we want to analyze the total call duration per user in May 2024. What is the average total call duration across all users?

QUESTION 3

What is the maximum number of group chats any user has participated in during the second quarter of 2024 and how does this compare to the average participation rate? This insight will guide decisions on simplifying the chat interface for both heavy and average users.

Try this question at interviewmaster.ai/question/whatsapp-call-and-group-chat-interface-usage

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