ACE IT CAREERS
BEST CAREER BUILDER

FREE INTERVIEW GUIDE

SQL & Data Analyst Interview Questions & Answers

SQL, Python and analytics questions asked in data analyst interviews, with example queries and short answers.

14 questions | Model answers

01 WHERE vs HAVING?

WHERE filters rows before grouping. HAVING filters groups after GROUP BY.

02 Types of SQL joins?

INNER returns matching rows, LEFT returns all left rows plus matches, RIGHT returns all right rows plus matches, FULL OUTER returns all rows from both.

03 Find the second-highest salary.

SELECT MAX(salary) FROM employees WHERE salary < (SELECT MAX(salary) FROM employees);

04 ROW_NUMBER vs RANK vs DENSE_RANK?

ROW_NUMBER gives unique numbers. RANK gives ties the same rank and skips the next numbers. DENSE_RANK gives ties the same rank without gaps.

05 What is a CTE?

A Common Table Expression (WITH ... AS) is a named temporary result used to make complex queries readable and reusable within one statement.

06 Top 3 products by revenue in each category?

Use a window function: rank products by revenue with ROW_NUMBER() OVER (PARTITION BY category ORDER BY revenue DESC) and keep rank ≤ 3.

07 How do you handle missing values in Pandas?

Find them with isnull(), then drop rows with dropna() or fill them with fillna() using a sensible value such as the mean, median or a default.

08 merge vs concat in Pandas?

merge joins DataFrames on key columns like SQL joins. concat stacks DataFrames along rows or columns.

09 Mean vs median, when to use which?

Use the median when data has outliers or is skewed (like salaries); use the mean for symmetric data.

10 Correlation vs causation?

Correlation means two variables move together. Causation means one causes the other. Correlation alone does not prove causation.

11 What makes a good dashboard?

A clear purpose, the few KPIs that matter, consistent colors, the right chart for each question, filters for exploration, and fast loading.

12 Power Query vs DAX in Power BI?

Power Query cleans and shapes data before loading. DAX creates calculations (measures and columns) on the loaded data model.

13 How would you analyze a drop in sales?

Confirm the data, compare against the same period last year, break it down by region, product, channel and customer segment, check external events, and present the main drivers with a recommendation.

14 Tell us about a project you completed.

Explain the business question, data source, cleaning steps, analysis, the dashboard or result, and the decision it supported.

Tip: practise saying each answer out loud with an example from your own project. Book a free mock interview at www.aceitcareers.com/contact