

Uber

Data Engineering Interview Questions



Ankita Gulati

Shubh Goyal



Job Details

- **Position:** Senior Data Engineer
- **Experience:** 5+ years
- **Location:** Bangalore
- **Work mode:** Office
- **Compensation:** ₹50+ LPA
- **Total Rounds:** 5
- **Top Required Skills:**
 1. SQL
 2. PySpark / Python
 3. Cloud Data Engineering
 4. ETL / Data Modeling
 5. Big Data & Streaming
 6. System Design

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Round 1

Coding BPS

1. Solve a hard SQL query (complex joins, window functions, or aggregations).
2. Deep-dive discussion on Spark internals, including:
 - How jobs, stages, and tasks are executed.
 - Role of DAG scheduler, shuffle, and optimizations.
 - Difference between narrow vs. wide transformations.

Round 2

Coding & SQL

1. Solve a hard SQL query involving advanced business logic.

2. Solve a medium-level DSA problem from one of these categories:

- Arrays
- Strings
- Stacks / Queues
- Linked Lists
- Recursion
- Binary Search
- Basic 1D Dynamic Programming

Round 3

Data Modeling

1. Design a data model for a common app (e.g., ride-hailing, food delivery).
 - Identify fact and dimension tables.
 - Explain when to use bridge tables.
 - Compare star schema vs. snowflake schema.
 - Discuss strategies for slowly changing dimensions (SCDs).
2. Write SQL queries against your data model and explain:
 - Query performance implications.
 - Optimization strategies.

Round 4

System Design

1. Design an end-to-end data architecture for one of these scenarios:
 - An executive dashboard for business leaders.
 - Building data marts for analytics.
 - A streaming data pipeline for real-time insights.
2. Clarify functional & non-functional requirements, then propose solutions.
3. Discuss trade-offs in:
 - Scalability and latency.
 - File formats (Parquet, ORC, Delta).
 - Ingestion tools (Kafka, Flink, Spark Streaming).
 - Database choices (relational vs. non-relational).
4. Share best practices in system design:
 - Fault tolerance.
 - Data quality checks.
 - Metadata management and monitoring.

Round 5

Collaboration & Leadership

1. What is your leadership style, and how do you adapt to different teams?
2. Tell me about a time you handled failures in a critical data pipeline.
3. How do you resolve conflicts within a technical team?
4. Give an example of how you celebrated achievements with your team.
5. How do you manage differences in opinions between engineers or stakeholders?
6. Why are you considering leaving your current company?

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Thank You

Best of luck with your
upcoming interviews
– you've got this!



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