

CHUBB Corporation Senior Data Engineer Interview Guide – Experienced 8+

Round 1 - Technical Interview

Overview

This round tests your technical depth, project experience, problem-solving skills, and SQL/Python fundamentals. Be ready to explain your day-to-day work, architecture knowledge, and address problem statements.

Interview Process Breakdown

1. Self-Introduction

- Introduce yourself with key projects, emphasizing your tech stack (e.g., Spark, Databricks, Python, SQL).
- Highlight your role in recent projects and technologies used.

2. Technology & Architecture

- Discuss your project architecture and the technologies you are using. Include details about:
 - Daily data volumes processed.
 - Why specific technologies were chosen for the project.

Follow-Up Questions:

- Explain the Medallion Architecture (Bronze, Silver, Gold layers).
- Questions on Databricks:
 - Importance of each layer in Databricks.
 - Secret Scope usage for managing credentials securely.
 - Steps to mount storage in Databricks.

3. SQL Skills

Prepare for intermediate-to-advanced SQL topics:

- Window Functions: RANK(), DENSE_RANK().
- Joins: Inner, Left, Right, and Full Joins.
- Common Table Expressions (CTEs) for complex queries.

4. Python Basics

Be ready for:

- List operations and comprehension.
- Lambda functions for quick data manipulation.

5. Data vs. Delta Lake

- Discuss differences between Data Lakes and Delta Lakes.
- Explain Delta Lake's architecture:
 - Transaction logs for ACID compliance.
 - How delete operations are handled efficiently.

6. Encryption

- Describe data encryption methods and their importance.
- Differentiate between data masking and encryption.

7. Project Challenges

- Share specific challenges you faced in your projects and how you solved them.

8. Spark Optimization

- Discuss Spark optimization techniques:
 - Identify and address data skewness (e.g., repartitioning, salting).
 - Efficient Spark job execution strategies.

Tips

- Practice explaining your project architecture with clarity.
- Brush up on SQL and Python coding fundamentals.
- Understand Spark internals like optimization and handling large datasets.

Round 2: Technical Interview

Overview

This round evaluates your understanding of security, infrastructure, and governance, along with follow-up questions on data platforms and project-related issues.

Interview Process Breakdown

1. Self-Introduction

- Start with a brief summary of your projects and tech stack.

2. Security & Governance

- Explain the difference between:
 - Service Principal and Managed Identity in Azure.
 - When to use each for secure resource access.
- Describe VM network interactions:
 - Components involved, such as Virtual Networks, NSGs (Network Security Groups), and Subnets.

3. Data Security & Encryption

- Share your understanding of data security mechanisms like encryption.
- Discuss infrastructure-related questions, such as securing data pipelines and access governance.

4. Follow-Up Infrastructure Questions

- Be ready for deeper discussions around infrastructure design, governance, and data security best practices.

Tips

- Demonstrate a clear understanding of security principles (e.g., encryption and managed identities).
- Be ready to explain VM and network configurations in detail.
- Brush up on Azure and cloud infrastructure concepts.

Glassdoor CHUBB Corporation Review –

<https://www.glassdoor.co.in/Reviews/Chubb-Reviews-E150.htm>

CHUBB Corporation Careers –

<https://www.chubb.com/emea-careers/>

Subscribe to my YouTube Channel for Free Data Engineering Content –

<https://www.youtube.com/@shubhamwadekar27>

Connect with me here –

<https://bento.me/shubhamwadekar>

Checkout more Interview Preparation Material on –

https://topmate.io/shubham_wadekar

© Shubham Wadekar