

Freecharge Data Engineer Interview Guide – Experienced 2+

Round 1: Technical Interview

Introduction & Background Discussion

- Briefly introduced myself, my educational background, and my journey transitioning into data engineering.
- Described my current role and day-to-day responsibilities.
- Shared insights about my personal and professional projects, emphasizing my experience with MySQL, Python, and Big Data tools.

Conceptual and Coding Questions

- **Explain the Software Development Life Cycle (SDLC) and compare it with the Waterfall model.**

While I clarified my limited exposure to SDLC from my electronics background, I confidently pivoted to my strong points in databases and data processing frameworks.

- **SQL Question:** What is a window function? Explain with an example.
- **SQL Query Problem:** Solve a query using window functions and GROUP BY to rank or aggregate data.
- **Coding Problem:** Write a program to find the frequency of each character in a string.

Discussed different approaches using Python, including using collections.Counter.

Big Data and Spark-Related Questions

- **What is Apache Spark?** Describe its architecture and main use cases.
- **What do you understand by data shuffling in Spark?** Why is it important?
- **Difference between cache() and persist() in Spark.** When would you use each?
- **Types of joins in Spark.** Explained inner, outer, left, and right joins with examples.
- **Optimization techniques in Spark.** Discussed techniques like using broadcast joins, partitioning, and avoiding shuffles.

AWS Service-Specific Questions

- **Limitations of AWS Glue and Lambda.** What are some challenges when working with these services?
- **Explain job bookmarking in AWS Glue.** How does it help in incremental data processing?

Additional Questions for Preparation

1. How would you troubleshoot a slow Spark job?
2. Explain the role of DAGs (Directed Acyclic Graphs) in Spark.
3. What are some best practices for writing efficient SQL queries?

Round 2: Technical Interview

Introduction and Role Discussion

- Introduced myself again, providing a refresher on my background and technical expertise.
- Discussed my current job role in detail, highlighting major achievements and responsibilities.

AWS and Data Engineering Discussion

- Explained a project where I used the AWS Data Engineering stack, detailing the architecture, key services used, and challenges faced.
- **AWS Services Overview:** Discussed services like S3, Glue, Lambda, and Redshift, and their role in data pipelines.

Problem-Solving and Behavioral Questions

- **Describe a challenging situation at work and how you handled it.**
- **What optimization strategies do you use in data pipelines?**
- **How do you monitor and log data pipelines in AWS?**

Additional Questions for Preparation

1. What's your approach to data versioning in a data lake?
2. Explain the difference between batch and streaming data processing.
3. How would you design a scalable data ingestion pipeline?

Round 3: HR Interview

Personal and Role-Fit Questions

- **Self-introduction** with a focus on my career journey and future aspirations.
- **Why are you leaving your current role?** Discussed growth opportunities and my desire to work on more complex data engineering challenges.

Salary and Offer Discussion

- **Salary expectations and negotiation.** Clarified my compensation requirements based on market standards and my experience.
- **Availability and preferred location.** Confirmed my notice period and discussed remote/hybrid work preferences.

Glassdoor Freecharge Review –

<https://www.glassdoor.co.in/Reviews/Goldman-Sachs-Reviews-E2800.htm>

Freecharge Careers –

<https://careers.freecharge.in/>

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