

McKinsey & Company Data Engineer Interview Guide – Experienced 3+

Round 1: Online Assessment (90 Minutes on Hackerrank)

Focus Areas:

1. Coding Questions (Python):

- Question 1: Problem based on lists operations.
- Question 2: Solve a regex problem.

2. SQL Challenges:

- Provided datasets and table schemas.
- Solved 4-5 SQL questions related to:
 - Group By
 - Joins
 - Correlated Queries

Round 2: Technical Telephonic Interview

Focus Areas:

1. Past Background & Projects:

Discussed my role, projects, and technical challenges faced.

2. Apache Spark Fundamentals:

Core concepts of Spark were discussed.

3. NoSQL Database:

Specific focus on Cassandra fundamentals.

4. SQL Window Functions:

Difference between ROW_NUMBER, RANK, and DENSE_RANK.

5. SQL Problem - Running Sum:

Solve a running sum query.

Round 3: Machine Coding (2 Hours)

Setup:

- Company-provided laptop and cloud setup.
- Dataset: F1 Racing Data in multiple CSV files.

Task:

- Solve 7-8 data processing questions using PySpark.
- Key requirements:
 - Read and process data from CSV files.
 - Write efficient PySpark jobs for given tasks.

Note:

- Access to Apache Spark official documentation was allowed for assistance.

Round 4: Technical Interview

Focus Areas:

1. Machine Coding Discussion:

Deep dive into my solutions and the approaches used in the machine coding round.

2. SQL Window Functions:

Revisited differences between ROW_NUMBER, RANK, and DENSE_RANK.

3. Adhoc SQL Problem (Wynk Music Data):

- Sample table with rows provided.
- Solved adhoc SQL queries involving:
 - Window functions
 - Aggregations
 - Joins

4. DSA Questions:

- Detect a loop in a singly linked list.
- Convert a sorted array into a Binary Search Tree.

Round 5: Aptitude (With Analytics Manager)

Focus Areas:

1. General Discussion:
Shared my experience and past projects.
2. Basic Puzzle:
A simple logical or analytical puzzle.
3. Aptitude Questions:
Basic questions around time & work problems.

Round 6: Hiring Manager Discussion

Focus Areas:

1. **Experience & Challenges:**
 - In-depth discussion about my previous work experience.
 - Highlighted challenges I faced and my approaches to solving them.
2. **Data Warehouse Design:**
 - Design a data warehouse for 7-11 or 24x7 stores.
 - Discussed detailed components, including:
 - Data sources and ETL processes.
 - Schema design (star/snowflake).
 - Reporting and analytics layers.

Checkout this article as well –

<https://medium.com/@sunshine990316/mckinsey-data-engineer-oa-prepare-595db6d397db>

Glassdoor McKinsey & Company Review –

<https://www.glassdoor.co.in/Reviews/McKinsey-and-Company-Reviews-E2893.htm>

McKinsey & Company Careers –

<https://www.mckinsey.com/careers/search-jobs>

Subscribe to my YouTube Channel for Free Data Engineering Content –

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