

## 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-qa-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>

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