Expedia Data Engineer Interview Guide – Experienced 3+

Round 1 - Coding (100 Minutes):

Key Challenges:

1. **Run Length Encoding and Decoding:**

   - Implemented a function to encode and decode strings using Run Length Encoding in Python.
   - Showcased efficient string manipulation and problem-solving.

2. **Device Name System:**

   - Designed a solution to generate unique device names from a list of IoT devices.
   - Handled naming conflicts by appending incremental numbers.

3. **Longest Ordered Subsequence of Vowels:**

   - Implemented an algorithm to find the longest ordered subsequence of vowels in a given string.

Round 2 - Big Data (1 Hour):

Discussion Areas:

- **Big Data Concepts:**

  - Explored fundamentals of Hive, Spark, HBase, Hadoop, and Big Data tools.

  - Discussed SQL skills with use cases.

- **Cloud Technologies:**

  - Highlighted batch vs. streaming project experience.

  - Shared expertise in AWS for data projects, focusing on services like Airflow for scheduling and deployment.

- **Real-time Spark Project:**

  - Discussed implementation of real-time data processing with Spark, data modeling, and schema design.

Round 3 - Technical (2 Hours):

Focus Area: DSA Problem-Solving

1. **Second Largest Element:**

   Wrote a function to find the second largest element in an array.

2. **Nth Largest Element:**

   Extended the solution to determine the nth largest element in an array.

3. **Linked List Challenge:**

   Replace each node's value with the next greater value in the list.

   Addressed edge cases where no greater element exists.

Round 4 - System Design (1 Hour):

Topics Covered:

1. **Data Processing Design:**

   Explained real-time vs. batch data processing scenarios.

2. **BI System Use Cases:**

   Demonstrated system design principles applied to BI solutions.

3. **Project Design (Draw.io):**

   Designed a project architecture visually and explained key components.

4. **Banking System Design:**

   Built a banking system architecture from scratch, highlighting critical workflows, scalability, and data management strategies.

Round 5 - HR and Technical (1 Hour):

Key Discussions:

1. **Past Projects & Technical Acumen:**

   Explained project architecture, technical contributions, and value delivered.

2. **Challenges and Collaboration:**

   Addressed:

   - Handling team disagreements.
   - Managing failed ideas.
   - Working under tight deadlines and high pressure.

3. **Adaptability & Learning:**

   Shared experiences of quickly adapting to new technologies and tools in evolving project requirements.

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https://www.glassdoor.co.in/Reviews/Expedia-Group-Reviews-E9876.htm

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