**Expedia Data Engineer Interview Guide – Experienced 5+**

**Round 1: Technical (Data Pipeline Design)**

**Focus Areas:**

1. **Past Experience:**

Resume-based questions on projects and responsibilities.

2. **Real-Time Data Pipeline:**

Conceptualization and end-to-end design of a real-time streaming data pipeline.

3. **Apache Kafka Deep Dive:**

 Offset management, Sync vs. Async commits.

 Partition assignment strategies and Consumer groups.

 Handling backpressure in Kafka streams.

4. **Scaling Applications with Docker:**

How Docker can be used to scale streaming data applications.

5. **CI/CD Deployment:**

Discussion on the deployment process for real-time applications using CI/CD pipelines.

**Round 2: Coding**

**Questions:**

1. **Power of a Number:**

Write code to calculate the power of a given number in minimum time complexity.

Hint: Solve using recursion combined with dynamic programming to achieve

O(log n) time complexity.

**2. Expression Evaluation:**

Given the Infix, Prefix, or Postfix notation of an expression

Write the code to compute the final result.

Hint: This is a Stack-based standard problem.

**Round 3: Technical**

**Topics Covered:**

1. **Apache Spark:**

 Fundamentals, OOM scenarios and their resolutions.

 Optimization techniques for Spark applications.

 Strategies for optimized joins in Spark.

 Handling data skewness with Key Salting techniques.

2. **Apache Kafka:**

Review of Kafka fundamentals and concepts.

3. **SQL Queries:**

Queries combining Joins and Group By operations.

**Round 4: Hiring Manager Discussion**

**Key Focus:**

1. **Past Experiences:**

Discussion on resume and projects.

2. **Workplace Scenarios:**

Share good and bad experiences with past employers.

3. **Teamwork & Delivery:**

How to manage tight project delivery timelines in a team environment.

4. **Career Journey:**

1. Why I left last company in just 4 months.

2. Expectations from the next job role.