

52 Apache NiFi Interview Questions to Hire Top Engineers

Questions

1. Can you explain what Apache NiFi is and its primary purpose?
2. What are FlowFiles in NiFi, and why are they important?
3. How does NiFi handle data provenance?
4. What is a processor in NiFi, and can you name a few common ones?
5. Explain the concept of back pressure in NiFi.
6. What is the difference between a connection and a relationship in NiFi?
7. How does NiFi ensure fault tolerance and data integrity?
8. Can you describe the NiFi UI and its main components?
9. What are process groups in NiFi, and why are they useful?
10. How does NiFi handle sensitive data and security?
11. How would you explain Apache NiFi to a non-technical stakeholder?
12. Can you describe a scenario where you would choose NiFi over other data integration tools?
13. How does NiFi handle data transformation, and what are some common transformation scenarios you've implemented?
14. What strategies would you use to optimize NiFi performance in a high-volume data ingestion scenario?
15. How would you approach versioning and change management for NiFi flows in a team environment?
16. Describe how you would implement error handling and data quality checks in a NiFi flow.
17. How would you secure sensitive data within a NiFi flow?
18. Can you explain how you would integrate NiFi with external systems like Kafka or Hadoop?
19. How would you design a NiFi flow to handle real-time log ingestion and parsing?
20. Explain the concept of NiFi Templates and how you would use them in a large-scale deployment.
21. What strategies would you employ to monitor and troubleshoot a complex NiFi flow?
22. How does NiFi's Content Repository work, and how would you optimize its performance?
23. Describe a scenario where you would use NiFi's Site-to-Site protocol.
24. How would you implement data enrichment in a NiFi flow using external APIs?
25. Explain the role of NiFi's FlowFile Repository and its importance in data processing.
26. How would you handle data schema evolution in a NiFi flow?
27. Describe how you would use NiFi's Record-based processors for complex data transformations.
28. What approaches would you take to scale a NiFi cluster horizontally?
29. How would you implement a custom NiFi processor, and in what scenarios would you need one?
30. Explain how you would use NiFi's Parameter Contexts for environment-specific configurations.
31. How would you design a NiFi flow to handle late-arriving data in a streaming scenario?
32. Describe your approach to implementing data quality checks and data cleansing in NiFi.
33. How would you use NiFi's Controller Services to manage shared resources across multiple processors?
34. How would you design a NiFi flow to handle variable incoming data formats?
35. Describe a scenario where you would use NiFi's prioritized queues, and how you would implement them.
36. How would you approach debugging a NiFi flow that is experiencing unexpected data loss?
37. Explain how you would implement a circuit breaker pattern in a NiFi flow to handle unreliable external services.
38. How would you design a NiFi flow to handle data deduplication across multiple sources?
39. Describe how you would implement a fan-in/fan-out pattern in NiFi for parallel processing of large datasets.
40. How would you implement a data quality firewall in NiFi to prevent bad data from entering your main data flow?
41. Can you describe the steps you would take to ingest data from multiple sources into NiFi?
42. How would you handle data validation and error handling in a NiFi data flow?
43. Explain how you would set up and manage data flow monitoring and alerts in NiFi.
44. What strategies would you use to ensure data consistency and reliability during data integration in NiFi?
45. Describe how you would manage and optimize the performance of NiFi in a high-volume data integration scenario.
46. How would you integrate NiFi with cloud-based data storage services?
47. Explain the process of load balancing in NiFi and why it is important for data integration.
48. What are some best practices for managing data flow configurations in NiFi?
49. How would you handle schema evolution in NiFi during data integration?