

CloudPandith

Microsoft Fabric Mastery | ETL Pipelines, Notebooks & Event Stream

Real-Time Projects | Interview Ready Training

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Section 1: Introduction & Lakehouse Foundations

1. Introduction to Fabric | Bronze to Silver pipeline
2. OneLake & Warehouse Explained | Lakehouse vs Warehouse
3. Medallion Architecture | Bronze, Silver, Gold layers
4. Fabric Overview | Pipelines, Notebooks, Incremental

Section 2: Data Ingestion & Pipelines

5. Ingest tables from Bronze to Silver using pipelines
6. Ingest folders from ADLS Gen2 to Lakehouse archive
7. Copy SQL tables to Warehouse & Lakehouse with archive
8. Ingest Azure SQL data using tables, queries, procedures
9. Incremental ingestion using updated_date column
10. Incremental load with pipeline logs and monitoring
11. On-prem folder ingestion using Data Gateway
12. On-prem SQL Server ingestion using Data Gateway
13. Incremental file ingestion from on-prem systems
14. SFTP ingestion with source validation using metadata
15. Snowflake to Warehouse & Lakehouse ingestion

Section 3: REST API & External Integrations

- 16. REST API ingestion to Lakehouse with Postman setup
- 17. Paginated API ingestion using query parameters
- 18. REST API integration with pagination and automation

Section 4: Frameworks, Scheduling & Dependencies

- 19. Metadata-driven ingestion framework and scheduling
- 20. Handle pipeline concurrency issues with custom logic
- 21. File watcher pipeline for multi-job dependencies
- 22. Trigger pipelines based on success file dependencies

Section 5: File Handling, Excel & Utilities

- 23. Delete files, remove small files, create ZIP archives
- 24. Load Excel files to Warehouse with dynamic mapping

Section 6: Mirroring & Data Movement

- 25. Azure SQL Database mirroring in Microsoft Fabric
- 26. On-prem SQL Server mirroring architecture and setup
- 27. Data movement between SQL, Warehouse and Lakehouse

Section 7: Dataflows & Transformations

- 28. Dataflows overview | Build and execute transformations
- 29. Dataflow Gen2 | Profiling, errors, text transformations

30. Dataflow Gen2 | Numeric, grouping, pivot, outputs

🌀 Section 8: End-to-End Pipeline

31. End-to-end ETL pipeline | Bronze to Silver workflow

🌀 Section 9: Streaming & Real-Time Processing

32. Eventhouse & Eventstreams | Real-time streaming

33. Event Hubs with Fabric | Streaming pipeline end-to-end

34. KQL Database | Create tables and query data

🌀 Section 10: Notebooks & PySpark

35. Fabric Notebooks overview | Magic commands and pools

36. Notebook wrangling | UI transformations and sharing

37. NotebookUtils & ADLS mount | File system operations

38. Advanced notebooks | Parameters and orchestration

39. Read and write CSV, Parquet, JSON, ORC, Avro formats

40. PySpark joins | Inner, outer, semi joins explained

41. DataFrame operations | Filter, groupBy, null handling

42. DataFrame transformations | derive, rename, concat

🌀 Section 11: Delta Lake & Optimization

43. Delta Lake overview | Managed vs external tables

44. Delta features | Schema, time travel, merge, restore

45. Delta partitioning | Cardinality and multi-columns

46. Z-Ordering vs partitioning | Performance optimization

47. Delta read, write, streaming and triggers

Section 12: Slowly Changing Dimensions

48. SCD Type 1 | Hash keys and audit logs

49. SCD Type 2 | Dimension modeling and history

Section 13: Advanced File Processing

50. Read and write Excel and XML | Multithreading

Section 14: Projects & Interview Preparation

51. Fabric interview questions | Architecture and security

52. Coding interview questions | PySpark and SQL scenarios

53. Project 1 | On-prem to Lakehouse end-to-end pipeline

54. Project 2 | Dataflow and Notebook transformation