

Databricks SQL: Delta Lake & Dashboards

Learn to build tables, ingest data, manage Delta Lake, and create dashboards and jobs in Databricks SQL.

3 Days

DURATION

7

MODULES

37

TOPICS

COURSE OVERVIEW

This course covers the Databricks SQL workspace, notebooks and the medallion architecture, followed by creating and managing tables, views and metadata. It covers ingesting data from various formats and external sources, then working with Delta Lake through commands such as MERGE, UPDATE and DELETE, along with analytical functions, joins, aggregations and UDFs. It also covers building visualisations and interactive dashboards from SQL queries, creating and scheduling Databricks Jobs, and additional topics such as batch and stream read write operations, versioning, concurrency and data enhancements.

WHO THIS COURSE IS FOR

Data Analysts

Data Engineers

BI Developers

SQL Developers

Database Administrators

LEARNING OBJECTIVES

- Explain Databricks SQL capabilities and the medallion architecture
- Create and manage tables, views and metadata catalogs
- Ingest data from formats such as CSV, Parquet and JSON
- Apply Delta Lake commands including MERGE, UPDATE and DELETE
- Analyse data using window functions, joins and aggregations
- Build interactive dashboards and visualisations from SQL queries
- Configure and schedule Databricks Jobs with parameters
- Describe batch and stream operations, versioning and concurrency

7 Modules, 37 Topics

01

Getting Started with Databricks

TOPICS

- Databricks SQL - Introduction
- Capabilities and benefits of Databricks SQL?
- Understanding the medallion architecture
- Understanding Databricks SQL Workspace and Databricks Notebooks

02

Tables and Views

TOPICS

Understanding Tables in Databricks SQL · Creating and Managing Tables · Creating and Using Views · Temporary and Permanent Tables · Managing Metadata and Catalogs

03

Ingesting Data

TOPICS

- Data Sources and Formats (CSV, Parquet, JSON, etc.)
- Importing Data from External Sources
- Using Databricks SQL for Data Ingestion
- Data Pipeline Concepts
- Import from object storage using Databricks SQL

04

Delta Commands in Databricks SQL

TOPICS

- | | |
|--|---|
| ■ Introduction to Delta Lake | ■ Analytical Functions (Window Functions, Grouping, etc.) |
| ■ Writing to Delta Tables | ■ Joins and Relationships between Tables |
| ■ Reading from Delta Tables | ■ Aggregations and Grouping |
| ■ Delta Commands for Data Management (MERGE, UPDATE, DELETE, etc.) | ■ Filtering and Sorting Data |
| | ■ Working with UDFs |

05

Data Visualization and Dashboards

TOPICS

- Building Visualizations with Databricks SQL
- Types of Visualizations (Bar Charts, Line Charts, etc.)
- Creating Interactive Dashboards
- Using SQL Queries in Visualizations

06

Databricks Jobs

TOPICS

Creating a Job · View Jobs and Job details · Running your first Job · Scheduling Jobs · Setting Parameters · Viewing completed jobs

07

More Insights on Analytical Applications

WORKING WITH READ WRITE OPERATIONS AS A:

Batch · Stream

Working with Versioning and Concurrency · Understand and describe Data Enhancements

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit koenig-solutions.com

✉ info@koenig-solutions.com