

# **Data Analysis with Databricks SQL - Extended**

*Duration : 3 Days*

## **Getting started with Databricks**

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

## **Tables and views**

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

## **Ingesting data**

- 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

## **Delta Commands in Databricks SQL**

- Introduction to Delta Lake
- Writing to Delta Tables
- Reading from Delta Tables

- Delta Commands for Data Management (MERGE, UPDATE, DELETE, etc.)
- Analytical Functions (Window Functions, Grouping, etc.)
- Joins and Relationships between Tables
- Aggregations and Grouping
- Filtering and Sorting Data
- Working with UDFs

## **Data visualization and dashboards**

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

## **Databricks Jobs**

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

## **More Insights on Analytical Applications**

- Working with Read Write Operations as a :
  - Batch
  - Stream
- Working with Versioning and Concurrency
- Understand and describe Data Enhancements