



SNOWFLAKE FUNDAMENTALS

4-DAY COURSE

22J19



OVERVIEW

This 4-day course covers the core concepts, design considerations, and Snowflake best practices intended for key stakeholders who will be working on the Snowflake Cloud Data Platform. The course consists of lectures, demos, and hands-on labs covering a wide range of essential topics.

ACQUIRED SKILLS

- Outline the unique and differentiated architecture of the Snowflake Cloud Data Platform.
- Load and transform data.
- Summarize query constructs, DDL, and DML operations.
- Use Snowflake's extensive SQL capabilities for data analysis.
- Describe how user and application access can be easily managed.
- Apply Snowflake best practices for working with semi-structured data.
- Discuss Snowflake's unique approach to caching.
- Implement the options provided to connect and interact with the Snowflake Cloud Data Platform.
- Employ Snowflake's continuous data protection features.
- Utilize Data Sharing to send your data in real-time to Customers and Partners.
- Scale your Virtual Warehouses to improve performance and address concurrency needs.
- Explain the different ways you can manage and monitor your Snowflake account.

WHO SHOULD ATTEND

- Data Analysts
- Data Engineers
- Data Scientists
- Database Architects
- Database Administrators

PREREQUISITES

Previous Data Warehouse knowledge is assumed.

DELIVERY FORMAT

Instructor-led Public or Private classes are available

TOPICS COVERED

Snowflake Overview and Architecture

- Overview of Snowflake
- Snowflake structure
- Using Snowsight
- Snowflake architecture
- Storage layer
- Compute layer
- Cloud Services layer

Connecting to Snowflake

- Connection options
- SnowSQL

Data Protection Features

- Cloning
- Time Travel
- Fail-safe
- Introduction to replication

SQL Support in Snowflake

- Tables, Views, and data types
- Standard SQL and Snowflake
- Transactions
- Multi-table inserts
- Collations
- Query Tags
- Working with parameters

Caching in Snowflake

- Metadata cache
- Query result cache
- Data cache

Query Performance

- Using Explain
- Query Profile
- SQL performance tips

Data Loading and Unloading

- Data loading objects
- Data loading process
- Transformation and copy options
- Data loading recommendations
- Continuous data loading
- Unloading data

Functions and Procedures

- User-defined Functions
- JavaScript stored procedures
- Snowflake Scripting
- High-performance functions
- Sampling

Using Tasks

- Creating and managing tasks

Managing Security

- Security overview
- Access
- Authentication
- Authorization
- Data protection

Access Control and User Management

- Concepts
- Types of roles
- Ownership

- View Grants

Semi-Structured Data

- Query semi-structured data

Introduction to Data Sharing

- Snowflake Data Sharing overview

Virtual Warehouse Scaling

- Scaling methodologies
- Scaling policies

Account and Resource Management

- Information Schema
- Snowflake Database
- Controlling costs
- Resource monitors