

SNOWFLAKE

COURSE CURRICULUM



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SNOWFLAKE COURSE CURRICULUM

Module 1: Introduction & History

- Snowflake History
- Evolution of Cloud Platform
- Modern Data Architecture
- Value of Cloud Data Platform
- One Platform, One Data Copy, Many Workloads

Module 2: Self Registration

- Choosing Snowflake Editions
- Selecting Cloud Providers & Regions
- Creating First SYSADMIN User
- Validating Snowflake Instance

Module 3: Snowflake Architecture

- Shared Disk vs Shared Nothing Architecture
- Snowflake Hybrid Architecture
- Layers of Snowflake

Module 4: Web UI – Snowsight & Classic UI

- Accessing Snowsight
- Worksheet & Data Profiling
- Dashboards & Sharing

Module 5: Snowflake Unique Features

- Virtual Warehouse & Multi-Cluster Warehouse
- Time Travel
- Zero Copy Clone
- Data Sharing & Marketplace
- Cross-Cloud Replication & Failover
- Security & Data Protection

Module 6: Virtual Warehouse (VWH)

- VWH Concept – Shared Nothing Compute
- VWH Sizes & Pricing (Edition-wise)
- Auto Scaling & Properties
- Multi-Cluster Concept
- Performance Tuning & Monitoring

Module 7: Micro Partitions & Clustering

- Partition vs Micro Partition
- Performance Evaluation
- Clustering Keys & Concepts

Module 8: Time Travel

- Time Travel & Data Protection
- Edition-Based Time Travel Limits
- Fail-safe Concept
- Time Travel on Permanent, Transient & Temporary Tables
- Account-Level Configuration
- Time Travel SQL Extensions & Keywords
- Cost & Recovery (Drop/Undrop)

Module 9: Zero Copy Cloning

- Concept & Use Cases
- Cloneable Objects
- Cloning Costs
- DB, Schema, Role & Grant Cloning

Module 10: Database, Schema & Tables

- Account & Container Model
- Database, Schema & Table Objects
- Table Types & Column Constraints
- Display & Describe Objects

Module 11: SQL in Snowflake

- DDL, DML, DCL, TCL Commands

Module 12: Snowflake Objects

- Stage Objects (Internal/External)
- File Formats
- Sequence & Integration Objects
- Pipes, Streams, Tasks
- Monitoring Objects

Module 13: Bulk/Batch Data Load

- Overview & Stage Concept
- Internal vs External Stage (AWS S3, IAM, Azure Blob)
- COPY INTO Command
- Data Load Considerations & Features

Module 14: Continuous Data Load

- Snowpipe Concepts
- Hands-on Snowpipe
- Considerations for Continuous Loads

Module 15: Snowflake Functions & Queries

- String, Numeric, Date, Time, Aggregate, and Analytical Functions
- Subqueries & CTEs

Module 16: SnowSQL

- Installation & Configuration

Module 17: External Tables & Data Load

- Architecture & SQL Constructs
- Querying External Data
- Partitioning & Auto-Refresh
- Information Schema

Module 18: Data Sharing & Reader Accounts

- Sharing Models (Direct, Reader Account)
- Cross-Region & Cross-Cloud Sharing
- Edition-wise Sharing Limits
- Cost Considerations & Limitations

Module 19: Streams in Snowflake

- Stream Concepts & Types
- Consuming Stream Data
- Streams on External Tables
- Offset & Retention
- Limitations & CDC

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Module 20: Tasks in Snowflake

- Task Object Functionality
- Serverless & Non-Serverless Tasks
- Scheduling & SQL Constructs
- Task Trees & Limitations
- Stream + Task Integration

Module 21: ETL Using Stream & Task

- CDC, Delta Processing
- `system$stream_has_data`
- Merge Statements
- End-to-End Data Flow

Module 23: Stored Procedures, UDFs, and Views

- Stored Procedures
- UDFs (User Defined Functions)
- Snowflake Scripting
- Types of Views (Secure, Materialized, etc.)

Module 24: Snowflake Information Schema

- Metadata Queries
- Accessing Information Schema

Module 25: Monitoring & Billing

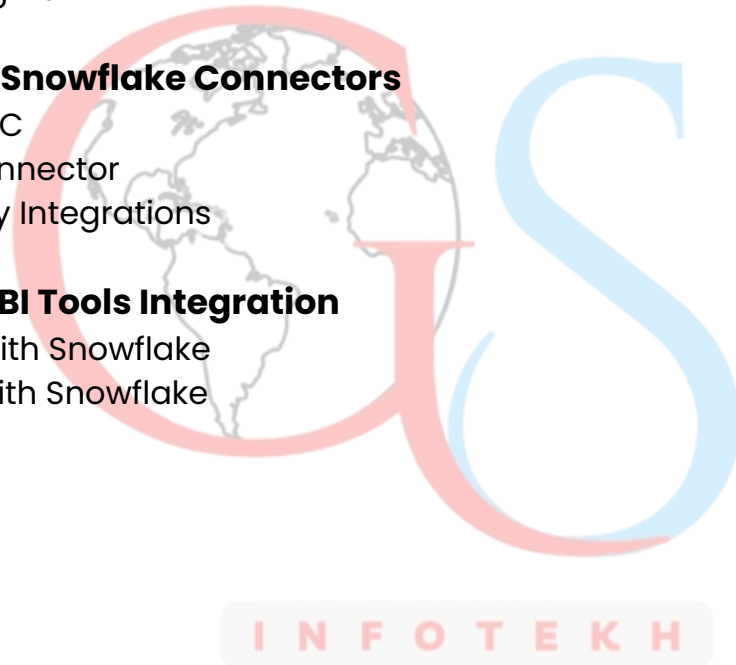
- Usage Reports
- Resource Monitoring
- Billing Insights

Module 26: Snowflake Connectors

- JDBC/ODBC
- Python Connector
- Third-Party Integrations

Module 27: BI Tools Integration

- Power BI with Snowflake
- Tableau with Snowflake



Thank you



Thank You for Going Through Snowflake Curriculum
We hope this guide has provided a clear and structured learning path
to strengthen your skills in Snowflake.

NEXT STEPS

- Start practicing with real-world use cases and hands-on exercises
- Build personal or client-based projects for your portfolio
- Keep exploring updates and best practices in the industry
- Join discussions and stay connected with the community

 **Need Help or Guidance?**

Feel free to contact our course support team:
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