Snowflake

Load, model, secure and optimise data in Snowflake, and migrate existing warehouses onto it.

DURATION	FORMAT	LEVEL	LABS
40 hours	Onsite, online or hybrid	Intermediate	Cloud sandbox included

About this programme

Covers the Snowflake platform end to end (architecture, objects, loading, semi-structured data, security, performance and cost) and then applies it to migration and integration work with DataStage, Teradata, Kafka, Snowpipe and BI tools.

Who it is for: Data engineers, ETL developers and data warehouse architects

What your team will be able to do

- Explain Snowflake's three-layer architecture and micro-partitioning
- Load, unload and query structured and semi-structured data
- Manage users, roles, access and data sharing securely
- Tune virtual warehouses for performance, concurrency and cost
- Plan Teradata and Hadoop migrations and real-time ingestion with Snowpipe

Before you start

- Working SQL
- Basic data warehousing concepts: tables, schemas and ETL

Course outline

1. Architecture and objects

- The three-layer architecture of the Snowflake platform
- Table types, views, stages and file formats
- Time Travel, zero-copy cloning and continuous data protection
- Micro-partitions and clustering

2. Loading and querying data

- Loading and unloading with the COPY command
- DDL, DML and object identifiers
- Working with semi-structured data
- SnowSQL: parameterisation, deployment and best practice

3. Security, access and sharing

- Access management for users and applications
- Role hierarchy and inheritance
- Service accounts and multi-factor authentication
- Secure data sharing: providers, consumers and reader accounts

4. Performance, cost and operations

- Virtual warehouses: scaling, concurrency and cost versus performance
- Caching and performance benefits
- Monitoring account usage and optimising cost
- Connectors, partner ecosystem and connection troubleshooting

5. Migration and integration

- Migration options for Teradata to Snowflake
- DataStage pipelines: Hadoop to S3 to Snowflake
- Kafka integration and real-time ingestion with Snowpipe
- Comparing other ETL/ELT tools with DataStage
- BI integration and reporting in Tableau

Sample schedule

5 days onsite, or 10 half-day sessions online. We fit days and session lengths to your team's calendar.

Day 1	8 h	Architecture and objects
Day 2	8 h	Loading and querying data; Security, access and sharing
Day 3	8 h	Security, access and sharing (continued); Performance, cost and operations
Day 4	8 h	Performance, cost and operations (continued); Migration and integration
Day 5	8 h	Migration and integration (continued)

Assessment and certification

How learning is checked

- A short knowledge check on day one and again at the end, so you can see each person's progress
- Graded hands-on labs in every module, reviewed by the trainer
- A final exercise that applies the programme to a problem like your team's own

Certificate and exams

- Participants who complete the programme receive a Cognitive Networks AI certificate of completion.

Formats and cohort size

- Onsite: At your office or a venue you choose, in full days.
- Online, live: Instructor-led over video, usually in half-day sessions so people can keep up with work.
- Hybrid: Some days in a room together, the rest online. Useful when a team works across cities.

Cohort size: 15 to 25 people per trainer. Larger teams run as parallel cohorts on the same outline, so everyone learns the same thing.

Pricing: We quote per cohort, based on duration, format and number of cohorts. There is no per-seat price list: tell us your team and we send a proposal within one business day.

Bring this programme to your team

Request a proposal at cognitivenetworks.ai/contact?programme=snowflake

reachus@cognitivenetworks.ai · Bangalore +91 72043 05303 · Dallas +1 (303) 827-7415