

**Advanced Snowflake**

**Course Number:** SQL-706  
**Duration:** 2 days

**Overview**

This Advanced Snowflake training course teaches attendees how to build an RBAC (role-based access control) hierarchy, incorporate a disaster recovery plan, optimize performance, and create automated workflows in Snowflake. Attendees also take a deep dive into Snowflake architecture.

**Prerequisites**

All attendees must have taken [Introduction to Snowflake](file:////training/snowflake-intro) or have equivalent knowledge.

**Materials**

All Snowflake training students receive comprehensive courseware.

**Software Needed on Each Student PC**

All attendees will need access to a Snowflake SQL environment with Accelebrate’s sample data loaded.

**Objectives**

* Describe advanced Snowflake architecture features and functionality
* Design and build an RBAC hierarchy
* Share data from inside or outside of an organization
* Incorporate Snowflake into a disaster recovery plan
* Use performance tuning and resource management features to optimize Snowflake
* Leverage advanced caching features to enhance performance
* Enhance continuous data pipelines with scheduled tasks to create an automated workflow

**Outline**

* Introduction
* Advanced Snowflake Architecture
  + Three Tiered Architecture
  + Micro-Partitioning in Snowflake
  + Snowflake Clustering
* Building an RBAC Hierarchy
  + Role Hierarchies
  + Multifactor Authentication and Authorization
  + Security Best Practices
  + Snowflake Roles
  + Connecting Snowflake
* Data Sharing and Disaster Recovery
  + Overview of Time Travel and Copy Cloning
  + Data Sharing
  + Overview of Disaster Recovery
  + Disaster Recovery with Snowflake
* Performance Tuning and Resource Management
  + Designing High-Performance Tables and Queries
  + Resource Usage and Billing
  + Multi-clustering and Clustering Keys
  + Scaling
  + Performance Tuning
* How Caching Improves Performance
  + Temp Tables
  + Transient Tables
  + Snowflake Caching Features
  + Advanced Caching
* Tasks and Scheduling Management
  + Integrating Stored Procedures, Views, and Functions
  + Tasks and Scheduling
  + Enhance Continuous Data Pipeline
* Conclusion