

**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