



# SNOWFLAKE DATABASE ADMINISTRATOR

3-DAY COURSE

20110



UNIVERSITY

DATASHEET

## OVERVIEW

This 3-day role-specific course provides an in-depth look at database administrator duties and responsibilities on the Snowflake platform. This course covers data loading performance, designing a role hierarchy, agile development, and advanced performance tuning. This course consists of lectures, labs, and discussions.

## ACQUIRED SKILLS

- Identify the various aspects of compute and storage management
- Illustrate administrative tasks within the detailed architecture of Snowflake
- Review Snowflake best practices & considerations for managing load operations and performance
- Describe data governance in Snowflake, including column-level data security using secure views and dynamic data masking features
- Manage multiple accounts across the Organization
- Describe the DDL operations that work with fundamental database objects
- Discuss transaction and concurrency models and DML considerations
- Employ recovery methods and agile development with Time Travel & Cloning
- Implement advanced techniques for Snowflake performance-tuning methodologies
- Design and develop secure access to objects in Snowflake with Role-Based Access Control (RBAC)
- Recommend the Snowflake best practices for management, monitoring, and optimization
- Use data replication for data sharing across accounts and for failover scenarios
- Share data securely both within and without your organization

## WHO SHOULD ATTEND

- System Administrators
- Data Engineers
- Database Architects
- Database Administrators

## PREREQUISITES

A background in database administration or management is required

## DELIVERY FORMAT

Instructor-led Public or Private classes are available

## TOPICS COVERED

### Snowflake Architecture and Overview

- Snowflake Technical Overview
- Overview of Three-Tiered Architecture

### Compute Management

- Scaling Virtual Warehouses Up & Out
- Creating and Managing Virtual Warehouses

### Snowflake Objects & Commands

- Built-in Design and Comparison to Traditional SQL Commands
- DDL Commands to Work with Different Database Objects
- Different Functions and Operators Available in Snowflake
- Account, Session, & Object Parameters

### Organizations

- Managing and Monitoring Multiple Accounts across Lines of Business
- Replication between Regions and Cloud Providers and Failover

### Load Operations & Performance Management

- Load Operation Performance
- Data Unloading

### DML & Transaction Model

- Snowflake DML Commands
- SQL Statements for Transactions in Snowflake
- DML and Clustering Impact on Table Versioning

### Back-up, Restore & Snapshot

- Time Travel
- Zero-copy cloning

- Fail-Safe
- Agile Development Use Cases

## Storage Management

- Table Design Considerations
- DML and Cloning Considerations
- Storage Optimization

## Performance Methodology & Management

- Query Profile Analysis
- Query Best Practices
- Caching
- Troubleshooting Tools & Tuning Performance Metrics
- Data Clustering
- Search Optimization Service
- Materialized Views

## Role-based Access & Design

- Overview of Data Governance
- System Roles & Custom Roles
- Role Hierarchy
- Best Practices
- Column-Level Data Security to Protect Sensitive Data

## Account & Resource Monitoring

- Creating Resource Monitors
- Monitoring Compute, Storage and Credits
- Database Object Types and Storage Considerations
- Utility Stored Procedures and Tasks

## Data Sharing

- Data Sharing Overview
- Secured View
- Secured UDF