# SNOWFLAKE ADVANCED in 3 days

**Prerequisites**: Basic knowledge of snowflake

**Duration**: 3 Days (8 Hrs./Day)

**Course Objective**: This three-day course covers advanced Snowflake features related to data manipulation and movement, using specialty table types, advanced query constructs, performance, and Snowflake-recommended operational best practices. This course consists of lectures, demos, and labs.

**Lab Requirement**: Koenig DC/Linux.

**Module 1 - Date and Time Data**

Date and Time Data Types

Work with Dates and Times

Time Series Data and ASOF Joins

**Module 2 - Geospatial Data Types**

Geospatial Overview

Geometry Data

Geography Data

Using Geospatial Functions

**Module 3 - Working with Unstructured Data**

Overview

Concepts

Workflow

**Module 4 - Tables**

Event Tables

Dynamic Tables

Hybrid Tables

**Module 5 - External Tables**

Querying External Data Lakes

Creating and Querying External Tables

Partitioning External Tables

**Module 6 - Iceberg Tables**

Data Lakes and Iceberg Tables

Iceberg Tables in Snowflake

**Module 7 - Schema Inference and Evolution**

Loading and Transforming Semi-structured Data

Schema Inference

Schema Evolution

**Module 8 - Window Functions**

Overview

Cumulative Window Functions

Sliding Window Functions

**Module 9 - Notifications and Alerts**

Configure and Manage Snowflake Alerts

Configure and Manage Notifications

**Module 10 - Automatic Clustering**

What is Data Clustering?

Micro-partition Pruning (Elimination)

Evaluating Clustering

Implement and Test Cluster Keys

**Module 11 - Materialized Views**

Overview

Materialized View Use Cases

**Module 12 - Data Sharing**

Data Access Options

Direct Data Sharing Workflow

**Module 13 - More snowflake advanced Concepts**

Fixing Load Problems

Group By and Grouping Sets

Subqueries and Common Table Expressions (CTEs)

Querying Hierarchical Data

Universal Search and Snowflake Copilot

Search Optimization

Query Acceleration