



# SNOWFLAKE FUNDAMENTALS

2-DAY LECTURE-ONLY COURSE



UNIVERSITY

DATASHEET

## OVERVIEW

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This 2-day course covers the fundamental concepts, design considerations, and best practices intended for key stakeholders who will be working on the Snowflake Platform. The course will consist of lecture and demos on a wide range of foundational topics.

## ACQUIRED SKILLS

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By the end of this class you will be able to:

- Illustrate the unique and differentiated architecture of the Snowflake Platform
- Load and transform data
- Evaluate Query Constructs and DDL & DML Operations
- Review Snowflakes broad SQL support for data analysis
- Describe how user and application access can be easily managed
- Demonstrate best practices for working with semi-structured data
- Discuss how Snowflake provides a unique approach to caching
- Examine the various ways to connect and interact with the Snowflake Platform
- Employ Snowflakes method for continuous data protection
- Utilize Data Sharing to send your data in real-time to Customers and Partners
- Scale your Virtual Warehouse for performance and concurrency
- Explain the different ways you can manage and monitor your Snowflake account

## WHO SHOULD ATTEND

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- Data Analysts
- Data Engineers
- Data Scientists
- Database Architects
- Database Administrators

## PREREQUISITES

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Previous Data Warehouse knowledge is assumed

## DELIVERY FORMAT

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Instructor-led Public or Private classes are available

# SCHEDULE

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## **Snowflake Architecture and Overview**

- Snowflake Technical Overview
- Cloud Services Layer
- Compute Layer
- Storage Layer

## **Data Movement**

- Data Loading
- Unloading
- Best Practices

## **Snowflake Objects & Commands**

- Query Constructs
- Data Description Language (DDL)
- Data Manipulation Language (DML)

## **Snowflake SQL Support for Data Analysis**

- SQL Support and Query Best Practices
- SQL Analytic Functions
- High Performing Estimation Functions
- UDF and Stored Procedure
- Demo Query Profile

## **Managing Security**

- Data Encryption
- Authentication
- Role-Based Access Control

# SCHEDULE

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## Semi-structured Data

- Capabilities and Best Practices for working with semi-structured data in Snowflake

## Caching

- Caching Features in Snowflake
- Best Practices of using caching for performance and cost optimization

## Snowflake Clients and Ecosystem

- Snowflake Clients and Connectors Overview
- SnowSQL – Snowflake CLI

## Continuous Data Protection

- Time Travel in Snowflake
- Cloning in Snowflake

## Data Sharing

- Snowflake Data Sharing Overview

## Performance & Concurrency

- Query Profile
- Micro-Partitions & Data Clustering
- Scaling a Virtual Warehouse

## Account and Resource Management and Monitoring

- System Resource Usage and Billing
- Managing Virtual Warehouses
- Workload independence and segmentation
- Monitoring Tool: Resource Monitors
- Monitoring Tools: Information Schema and Account Usage