

## About Instructor

Instructor has 11+ years of IT experience has executed multiple data warehousing projects in Snowflake, Teradata, Informatica, SnapLogic & PL/SQL.

Started his career as a ETL consultant & current working as a project lead. Has Expertise in providing Data warehousing solutions & providing trainings.

## Snowflake Description

Snowflake is an insanely cool next generation SaaS (Software As A Service) data warehousing solution that operates in the cloud!

Engineered from the ground up, Snowflake takes advantage of the elasticity that the cloud provides – and is truly revolutionary in every aspect.

Harnessing the power of the cloud, Snowflake has unique capabilities in the form of unlimited and instant scalability, making it perhaps the ultimate data warehouse solution. Cloud elasticity is very much at the heart of Snowflake – making its unique architecture and value proposition difficult to compete with in the market.

From an end user perspective, Snowflake is incredibly appealing. Building data warehouses and petabyte data scaled solutions without having to worry about on-prem compute and storage issues means your focus remains solely on the data itself and even more importantly, the analytics you derive from

## Intended Audience

- Anyone interested in learning about Snowflake, and the benefits of using it to build a data warehouse in the cloud

## Prerequisites

To get the most from this course, it would help to have a basic understanding of:

- Basic SQL knowledge
- Basic Data Warehousing Knowledge.

## Course Contents:

- Advantages of Cloud data warehousing.
- Describe about various popular cloud data warehouses
- Redshift (AWS)
- Snowflake
- Azure synapse (Microsoft)

- Big Query (Google)

## Snowflake General

- Introduction
- Pricing
- Snowflake Editions
  - Standard Edition
  - Enterprise Edition
  - Business Critical Edition
  - Virtual Private Snowflake (VPS)
- Supported Cloud Platforms
  - Amazon Web Services (AWS)
  - Google Cloud Platform (GCP)
  - Microsoft Azure (Azure)

## Connected to Snowflake

- How to create snowflake account
- Different features in Snowflake.
- Web interface overview and how to use
- SnowSql tool introduction and Usage.

## Snowflake Architecture

- Overview
- Architecture layers – Storage, Query Processing and Cloud Services

## Loading / Unloading Data Into/From Snowflake

- Overview of Data Loading
- Summary of Data Loading Features
- Data Loading Considerations
- Preparing to Load Data
- Bulk Loading Using COPY
- Loading Continuously Using Snowpipe
- Loading Using the Web Interface (Limited)
- Querying Data in Staged Files
- Querying Metadata for Staged Files
- Transforming Data During a Load

## Semi-structured Data — Key concepts and tasks for working with JSON and other types

- Introduction to Semi-structured Data
- Semi-structured Data Considerations
- Tutorial: JSON Basics

## Virtual warehouses

- Overview of Warehouses
- Multi-cluster Warehouses

- Warehouse Considerations
- Working with Warehouses
- Monitoring Warehouse Load

### Databases, Tables & Views

- Understanding Snowflake Table Structures
- Working with Temporary and Transient Tables
- Working with External Tables
- Overview of Views
- Working with Secure Views
- Working with Materialized Views
- Table Design Considerations
- Cloning Considerations
- Data Storage Considerations

### Timetravel and Fail Safe

- Understanding & Using Time Travel
- Understanding & Viewing Fail-safe
- Storage Costs for Time Travel and Fail-safe

### Sharing Data In Snowflake

- Introduction to Secure Data Sharing
- Overview of the Product Offerings for Secure Data Sharing
- Granting Data Exchange Administrator Privileges to Other Roles
- Secure Direct Data Share
- Data Providers
- Working with Shares
- Sharing Data from Multiple Databases
- Sharing Data Securely Across Regions and Cloud Platforms
- Using Secure Objects to Control Data Access
- Managing Reader Accounts
- Configuring a Reader Account
- Enabling Sharing from a Business-Critical Account to a non-Business Critical Account

### Managing Your Snowflake Account

- System Defined roles
  - ACCOUNTADMIN
  - SECURITYADMIN
  - SYSADMIN
  - PUBLIC
- Custom Roles

### Working with Streams and Tasks

- Introduction to Streams & Types
- Live example demonstration
- Introduction to tasks

- Scheduling Streams through Tasks