Course Name: Snowflake Data Warehouse Professional Certification Course

Course Overview

This comprehensive course offers an in-depth exploration of Snowflake's unique architecture, data management capabilities, and SQL support. Participants will master crucial features such as continuous data protection, bulk and continuous loading, performance optimization, and resource management. The curriculum also covers advanced topics like data sharing, access control, and practical ETL implementations for structured and unstructured data in Snowflake.

What You'll Learn?

In this course, participants will learn the comprehensive architecture of Snowflake, including its hybrid architecture and virtual warehousing. The curriculum covers hands-on SQL support, data protection, and efficient data movement, along with bulk and continuous data loading techniques. Additionally, it delves into creating and managing Snowflake functions, streams, tasks, and handling semi-structured data, ensuring mastery in performance optimization, access control, and resource management within Snowflake environments.

Internship Program:

In addition to the course, you will participate in a 3-month internship involving six live projects. Upon successful completion, you will receive an Internship Certificate.

Letter of Recommendation:

Upon successfully completing the program and internship, you will also receive a Letter of Recommendation (LOR).

Duration:

24 Hours (4 Weeks) + 3 Months (Internship Program)

Requirements:

Snowflake

Pre-requisite:

No pre-requisite

Curriculum

Module 1. Snowflake Overview and Architecture

a) Shared Disk & Shared Nothing Architecture

b) Snowflake Hybrid Architecture

c) Layers of Snowflake

d) Micro partitions

e) Virtual Warehouse

Module 2. Client and Interface

a) Snowflake Account Creation

b) Clients & Interfaces

c) UI Overview

Module 3. SQL Support in Snowflake

a) DDL, DML

b) Querying and Filtering

c) Collations

d) Subqueries

e) Query Profile

Module 4. Snowflake Caching

a) Overview

b) Query Result Cache

c) Metadata Cache

d) Data Cache in Compute Cluster

Module 5. Continuous Data Protection

a) Time Travel

b) Fail Safe

c) Cloning

Module 6. Data Movement

a) Stages

b) File Format

c) Storage Integration

d) List Command

e) Remove Command

Module 7. Bulk Loading Overview

a) Data Loading Features

b) Data Loading consideration

c) Bulk Load using Copy command

d) Data Loading Recommendations

e) Transforming data during load

f) Data Load Management

g) Data Unloading

Module 8. Continuous Data Loading

a) Overview of Continuous Data Loading

b) SnowPipe Hands On

c) Continuous Data loading consideration

Module 9. Snowflake Functions

a) Snowflake Functions Overview

b) High Performing Functions

c) User Defined Functions

d) Stored Procedures

Module 10. Snowflake Streams

a) How does Stream Work

b) Types of Stream

c) How to consume stream data

d) Stream Hands On

Module 11. Snowflake Task

a) What is task?

b) How to create task

c) Task Hands On

Module 12. Semi Structure Data

a) How to flatten the data

b) Load the data in Table

c) Query the data

Module 13. Access Control and User Management

a) Concepts

b) System Roles

c) Custom roles and Inheritance

Module 14. Data Sharing

a) Data Sharing Overview

b) Sharing Data

Module 15. Performance and Concurrency

a) Micro Partition

b) Data Clustering

c) Virtual Warehouse Scaling

Module 16. Account and Resource Management

a) Controlling cost

b) Resource Monitors

c) Information_schema

d) SNOWFLAKE Database

Module 17. ETL In Snowflake

a) Copy, Stream, Task for structured/Unstructured data

b) Pipe, stream, task for structured/Unstructured data