
Snowflake Cloud Data Warehousing

24 Hours

Course Overview:

"Discover Snowflake - Launch Your Cloud Data Journey" is a comprehensive introduction to Snowflake, the groundbreaking cloud data platform. This course will guide you through the foundational concepts, techniques, and unique features of Snowflake, ensuring you gain both theoretical knowledge and hands-on experience.

Snowflake is the only fully managed petabyte scale data platform solution compatible with AWS, Google Cloud and Azure. This course covers what you need to understand Snowflake's value proposition and to begin your journey adopting this data platform.

Course Objectives:

- Introduction to Cloud Data Platforms: Understand the evolution of data storage, processing, and the rise of cloud-native solutions.
- Snowflake Architecture: Dive deep into Snowflake's unique multi-cluster architecture, virtual warehouses, and data sharing capabilities.
- Data Ingestion & Management: Learn how to ingest, store, and manage vast datasets in Snowflake without the hassles of traditional database tuning.
- Querying with Snowflake: Master the art of crafting efficient queries in Snowflake, benefiting from its automatic optimization and scaling.
- Data Sharing & Integration: Explore Snowflake's unparalleled data sharing capabilities and its seamless integration with various data tools and platforms.
- Best Practices: Acquire knowledge of the best practices in implementing Snowflake solutions, ensuring data security, scalability, and optimal performance.

Who Should Attend:

This course is intended for Data Analysts, DBAs, Data Engineers, BI Developers, Business Analytics with basic understanding of SQL and Databases and Cloud Computing awareness.

Required Skills:

- SQL programming experience
- Understanding of ETL processes

Course Contents:

- **Introduction to Cloud Computing**
 - What is cloud computing?
 - Different cloud computing platforms
 - Advantages of cloud computing over on-premises
- **Data Warehousing Concepts**
 - What is a Data Warehouse?
 - Data Base Vs Data Warehouse
 - Different types of data warehouses
 - The data warehouse lifecycle
- **Introduction to Snowflake**

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- Overview of Snowflake's architecture and key features
 - Comparison with other cloud data warehousing solutions
 - Snowflake Editions and Pricing
 - Getting started with Snowflake.
 - Understanding the Snowflake computing and storage layers
 - Navigating the Snowflake web interface and using the worksheet
 - **Setting up Snowflake**
 - Creating Snowflake Accounts
 - User Roles and Access Control
 - Snowflake Web UI Overview
 - **Data loading and transformation**
 - Databases, Schemas, and Tables - Creating, Modifying, and Dropping
 - Loading data into Snowflake using various methods (e.g., COPY command, data connectors, etc.)
 - Bulk Loading using Snowpipe
 - Loading Continuously Using Snowpipe
 - Understanding Snowflake's support for semi-structured data and JSON
 - Transforming data using Snowflake's SQL
 - **Data querying and analysis**
 - Using Snowflake's SQL to query and analyse data
 - Understanding Snowflake's query optimizer
 - Optimizing query performance using features such as clustering, materialized views, and Result Cache
 - Using Snowflake's built-in analytics functions
 - Advanced data querying and analysis using Snowflake's Virtual Warehouses
 - **Best Practices and real-world use cases**
 - Best practices for data loading, transformation, and querying in Snowflake
 - Real-world use cases and examples of Snowflake in action
 - Case studies using Snowflake
 - Hands-on exercises and labs throughout the course to reinforce the concepts covered