

Snowflake for Technologists - TTSNW06

Master Snowflake's next-level features to drive efficient data workflows, optimize performance, and deliver actionable business insights.

Duration: 3 Days

Skill Level: Intermediate

Available Format: ; Instructor-Led, Onsite In Person ; On Public Schedule

Snowflake for Technologists is a comprehensive three-day, hands-on course designed to help you make the most of Snowflake in today's data-driven environments. Tailored for IT professionals, developers, DevOps engineers, and data analysts with technical backgrounds, this course provides the knowledge and skills you need to leverage Snowflake effectively in your role. Through engaging, expert-led sessions, hands-on labs, and real-world problem-solving, you will learn how to confidently configure and manage Snowflake, optimize workflows, and analyze large datasets effectively.

You will explore advanced features like virtual warehouses, semi-structured data handling, and query optimization, while also developing practical skills with advanced SQL techniques to create enriched datasets and gain meaningful insights. You will practice connecting Snowflake with BI tools, implementing robust security measures for data governance, and using time travel and cloning to handle historical data and recovery scenarios.

This course also includes techniques for performance tuning, caching, and cost optimization, equipping you with the tools to design efficient, scalable, and cost-effective solutions. By the end of the course, you will have a solid understanding of Snowflake's architecture and capabilities, ready to tackle real-world challenges and create workflows that meet your data needs.

What You'll Learn

Overview

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Objectives

This course combines engaging instructor-led presentations and practical hands-on labs to help participants build critical Snowflake skills.

By the end of this course, you will:

- Understand Snowflake's cloud-native architecture.
- Configure and manage virtual warehouses.
- Perform data loading using SnowSQL and SnowPipe.
- Apply caching and query optimization strategies.
- Analyze semi-structured data and create advanced queries.
- Integrate Snowflake with popular BI tools for visualization and reporting.
- Implement Snowflake's security features for data governance.
- Leverage Snowflake's collaboration and time travel features.
- Conduct end-to-end data analysis workflows for business use cases.

If your team requires different topics, additional skills or a custom approach, our team will collaborate with you to adjust the course to focus on your specific learning objectives and goals.

Audience

This course is tailored for IT professionals, developers, DevOps engineers, and data analysts responsible for building, managing, and optimizing data workflows. It's best suited for participants with technical backgrounds and basic SQL knowledge who want to enhance their skills in Snowflake for advanced data management and analysis.

Pre-Requisites

To ensure a smooth learning experience and maximize the benefits of attending this course, you should have the following prerequisite skills:

- **Basic SQL Skills:** Proficiency in writing queries using **SELECT**, **WHERE**, and **JOIN** constructs.
- **Familiarity with Cloud Platforms:** General understanding of cloud environments and their role in data workflows.
- **Knowledge of Data Management Concepts:** Experience with data ingestion, storage, and transformation techniques.

TTSQL003 Introduction to Writing SQL Queries

Agenda

Please note that this list of topics is based on our standard course offering, evolved from typical industry uses and trends. We'll work with you to tune this course and level of coverage to target the skills you need most. Topics, agenda and labs are subject to change, and may adjust during live delivery based on audience skill level, interests and participation.

Day 1: Snowflake Fundamentals

1. **Introduction to Snowflake**
 - Key features and benefits of Snowflake.
 - Overview of Snowflake's functional and technical architecture.
2. **Getting Started with Snowflake**
 - Setting up accounts and exploring Snowsight.
 - Hands-On Lab
 - Configuring Snowflake and navigating its interface.

3. Working with Virtual Warehouses

- Creating and managing virtual warehouses.
- Scaling considerations and query design best practices.

4. Introduction to SnowSQL

- Installation, configuration, and basic commands.
- Hands-On Lab
- Creating virtual warehouses and loading data using SnowSQL.

Day 2: Advanced Features and Optimization

5. Advanced Querying and Performance Tuning

- Performing DDL and DML operations.
- Analyzing query performance with Query Profile.

6. Caching in Snowflake

- Using query result cache and warehouse data cache effectively.
- Hands-On Lab
- Writing advanced queries and analyzing performance metrics.

7. Working with Semi-Structured Data

- Loading and querying JSON, XML, and Parquet.
- Using FLATTEN for nested data structures.

8. Time Travel and Data Recovery

- Exploring time travel for historical analysis.
- Implementing data cloning for recovery scenarios.
- Hands-On Lab
- Querying semi-structured data and leveraging time travel features.

Day 3: Data Analysis and End-to-End Use Case

9. Advanced Data Analysis in Snowflake

- Using analytical functions like window functions and grouping sets.
- Querying large datasets efficiently.

10. Data Transformation and Enrichment

- Transforming and enriching data with Snowflake's SQL capabilities.
- Hands-On Lab

- Conducting advanced analysis and preparing datasets for enrichment.

11. Putting It All Together: End-to-End Use Case: Business Analytics Workflow

- Problem Definition: Analyzing a real-world dataset.
- Data Ingestion: Loading and preparing the dataset.
- Querying and Transformation: Extracting insights and preparing reports.
- Visualization: Creating dashboards and presenting findings.

Related Courses

TTSNW03	Getting Started with Snowflake Datawarehouse in the Cloud
TTSNW04	Intermediate Snowflake Datawarehouse in the Cloud
TTSNW06	Snowflake for Technologists
TTSNW02	Snowflake for End Users
TTSNW07	Advanced Data Handling and Automation with Snowflake

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All applicable course software, digital courseware files or course notes, labs, data sets and solutions, live coaching support channels and rich extended learning and post training resources are provided for you in our "easy access, single source, no install required" online Learning Experience Platform (LXP), remote lab and content environment. Access periods vary by course. We'll collaborate with you to ensure your team is set up and ready to go well in advance of the class. Please inquire about set up details and options for your specific course of interest.

For More Information

Please [contact us](#) or call 844-475-4559 toll free for more information about our training services (instructor-led, self-paced or blended), coaching and mentoring services, public course enrollment or questions, partner programs, courseware licensing options and more.