

Advanced Data Handling and Automation with Snowflake - TTSNW07

Build advanced Snowflake skills to handle semi-structured data, implement secure data sharing, automate workflows, and optimize performance.

Duration: 2 Days

Skill Level: Intermediate

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

Designed for intermediate users, this course focuses on Snowflake's advanced capabilities for managing complex workflows and automating tasks. You'll learn how to work with semi-structured data, set up secure data-sharing workflows, and use scripting and stored procedures for efficient automation. With additional focus on cost and performance optimization, you'll walk away ready to apply these techniques to enterprise-level data challenges.

What You'll Learn

Overview

Advanced Data Handling and Automation with Snowflake is a two-day, hands-on course designed to help you build on your foundational Snowflake skills and take your expertise to the next level. Tailored for data analysts, engineers, scientists, database administrators, and architects, this course focuses on equipping you with the knowledge and tools needed to handle complex data scenarios and automate workflows efficiently. Through engaging, expert-led sessions, hands-on labs, and practical exercises, you will gain the confidence to work with advanced Snowflake features and solve real-world data challenges effectively.

You will learn how to work with semi-structured data formats like JSON and Parquet, configure secure data-sharing workflows, and automate tasks using Snowflake scripting and stored procedures. You will also explore advanced techniques for cost and

performance management, including auto-scaling and resource optimization, ensuring that your data workflows are both efficient and cost-effective.

This course provides you with practical skills to manage large-scale data operations, streamline collaboration, and optimize Snowflake environments for enterprise needs. By the end of the course, you will have a solid understanding of Snowflake's advanced features and the ability to apply them confidently in your role, helping you achieve greater efficiency and impact in your data workflows.

Objectives

This course combines engaging instructor-led presentations and useful demonstrations with valuable hands-on labs and engaging group activities.

Throughout the course you will learn to:

- Efficiently query and transform semi-structured data (e.g., JSON, XML, Parquet).
- Implement secure data sharing workflows with stakeholders.
- Create automated workflows using Snowflake's tasks and scripting.
- Optimize virtual warehouse scaling and manage cost-performance trade-offs.
- Leverage advanced Snowflake capabilities for enterprise-level data solutions.

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 intermediate-level professionals responsible for managing and optimizing data workflows, including data analysts, engineers, scientists, database administrators, and architects. It is ideal for those seeking to expand their Snowflake skills to include advanced data handling, automation, and resource management.

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 and Python Skills:** Proficiency in writing basic SQL queries and Python scripts.

- **Familiarity with Snowflake Fundamentals:** Knowledge of Snowflake architecture, basic data loading, and querying operations.
- **Understanding of Data Workflows:** Experience with managing data processes and workflows in a technical environment.

TTPS4800 Introduction to Python Programming Basics

TTSQL002 Introduction to SQL Programming Basics

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: Semi-Structured Data and Data Sharing

1. Working with Semi-Structured Data

Introduction to semi-structured data in Snowflake.

- Querying JSON, XML, and Parquet data.
- Transforming nested data using the FLATTEN function.
- Best practices for managing semi-structured data at scale.
- Hands-On Lab
- Querying JSON and Parquet datasets.
- Flattening and transforming nested data structures.

2. Data Sharing and Collaboration

- Overview of Snowflake's secure data-sharing capabilities.
- Setting up secure data shares for external stakeholders.
- Exploring Snowflake Data Marketplace use cases.
- Managing access and permissions for shared data.
- Hands-On Lab
- Configuring secure data shares.
- Exploring a Snowflake Data Marketplace scenario.

Day 2: Automation and Advanced Features

3. Task Automation

- Overview of tasks and their role in workflow automation.

- Creating and managing scheduled tasks in Snowflake.
- Writing stored procedures for automated workflows.
- Introduction to Snowflake scripting for advanced automation.
- Hands-On Lab
- Creating a task to automate data updates.
- Writing and executing a stored procedure.

4. Cost and Performance Management

- Overview of Snowflake's cost management features.
- Monitoring and analyzing resource utilization.
- Implementing auto-scaling policies for virtual warehouses.
- Optimizing performance for complex queries and workloads.
- Hands-On Lab
- Configuring auto-scaling policies.
- Analyzing cost-performance trade-offs in a real-world scenario.

Related Courses

TTSNW06	Snowflake for Technologists
TTSNW03	Getting Started with Snowflake Datawarehouse in the Cloud
TTSNW04	Intermediate Snowflake Datawarehouse in the Cloud
TTSNW02	Snowflake for End Users

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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.