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Sign up

Advanced Snowflake training

3 days (21 hours)

Presentation

Become an expert in cloud data warehouse management with our Snowflake Advanced training. You'll be able to manage and ensure the integrity of data from your entire organization.

Our program builds on the concepts taught in our standard Snowflake training course. After a quick reminder of Snowflake's fundamentals, we'll start the course with a presentation of the architecture and its ecosystem.

We'll then get down to the nitty-gritty of designing advanced SQL queries with a view to optimizing costs and performance. You'll learn how to manipulate more specific data, such as geospatial, semi-structured and data lake data.

You'll also learn about good governance and lineage practices. Our training will be based on the latest version of Snowflake, Snowflake 8.

Objectives

- Run advanced SQL queries on Snowflake
- Optimizing costs
- Optimizing platform performance

Target audience

- Project managers
- IT Leads
- IT architects
- Data analysts
- Data scientists

- Data engineers
- Business analysts
- System administrators

Prerequisites

- Snowflake experience or have taken our Snowflake training course
- Mastery of SQL language

Snowflake advanced training program

Foundations, Architecture and Advanced SQL

- Reminders: IAM, query costs, simple queries, best practices, data structure
- Architecture: star and flake diagrams, hybrid approach, dimensional modeling
- Security: roles, encryption, data sharing
- Cost management: Setting quotas, monitoring and allocating expenses
- Governance: Metadata, cataloguing, data quality
- Advanced SQL: advanced SQL functions, stored procedures, window functions, nested fields, UDF functions (and compatible languages)

Unstructured data and data feeds

- Potential reminder of advanced SQL functions
- Unstructured data: Integration of JSON and XML, presentation of the VARIANT type and how to query it
- Data Engineering: Tasks and scheduling, Streams
- Data integration : ETL processes, integration functions
- Data lineage: Snowflake tools and functions for tracing data history

Data lakes and data clustering

- Integration with data lakes: Deploy a data lake, query an external data lake, create and partition external tables
- Query optimization : Execution plans, caching, temporary tables, views materialized, auto-indexing
- Virtual warehouses: Sizing, management, auto-scaling
- Clustering: Manual vs. automatic clustering, cluster management
- Time Travel: Introduction to time travel, UNDROP function

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology or to

acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire enabling us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives with regard to the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.