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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

QUICK REMINDERS

- Data structure
- IAM
- Query costs
- Simple requests
- Good safety practices

ARCHITECTURE

- Snowflake's place in Polaris Catalog
- Schematic design
  - Star schema
  - Snowflake schema
  - Hybrid approaches
- Data partitioning
- Dimensional modeling

ADVANCED SQL

- Advanced SQL functions
- UDF functions
- Stored procedures
- Nested fields
- Window functions

Cost management

- The cost management framework
- Setting quotas
- Keeping a close eye on expenses
- Allocate expenses
- Best practices in cost control

Semi-structured data management

- Structured vs. semi-structured
- ETL process
- Pattern detection
- Schematic evolution
- Managing unstructured data

Geospatial data management

- Understanding geospatial data
- Geometric data
- Geographical data

Integration with data lakes

- Deploying data lakes
- Queries on external data lakes
- Create and partition external tables

Performance optimization

- Query optimization
- Cache strategies
- Resource monitoring
- Virtual warehouses
- Materialized Views
- Clusters

Data Clustering

- Why use micro-partitions?
- Manual vs. automatic clustering
- Cluster maintenance and management

Data governance and lineage

- Understanding data lineage
- Metadata management
- Ensure data quality and integrity
- Zero-copy cloning

Companies concerned

This 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 which enables 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 for 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.