INDATAI.COM
DATA TO INSIGHTS

DATA ANALYSIS IN SNOWFLAKE - SQL & AI

Comprehensive Hands-On Workshop

Description

Join our intensive 3-day workshop, 'Data Analysis in Snowflake – SQL & AI', designed to provide Data Analysts with a comprehensive understanding of Snowflake's data platform. This hands-on training will immerse you in the essential aspects of Snowflake, with a strong focus on SQL and using AI to accelerate your workflow. Engage in practical exercises and real-world scenarios to ensure you gain the skills necessary to effectively use Snowflake in your organization. Join us and transform your data operations with the power of Snowflake, SQL, and AI!
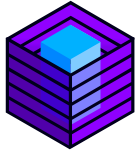
Format

Mostly workshops

Duration

3 days

Prerequisites

- Basic understanding of SQL and/or Excel
- Familiarity with general database concepts
- Experience with data analysis concepts is a plus but not mandatory

Target audience

- Data Analysts
- Data Engineers
- IT Professionals involved in data analysis
- Anyone interested in enhancing their data analysis skills using Snowflake

Workshop program

1. Snowflake Overview
   - Introduction to Snowflake
   - Key features and architecture

2. Client Interfaces
   - Various client tools
   - Using the Snowflake web interface

3. Retrieving Data Using SELECT
   - Basic SELECT statements
   - Querying data from tables

4. Using an AI Co-pilot to Write SQL Queries
   - Overview of AI tools in Snowflake
   - Enhancing productivity with AI assistance
   - Creating Prompts

5. Using Built-in Functions for Processing and Formatting Retrieved Data
   - String functions
   - Date and time functions
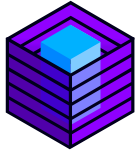
6. Functions for Type Conversion
   - Converting between data types
   - Practical use cases

7. Sorting Query Results
   - ORDER BY clause
   - Sorting techniques

8. Filtering Rows
   - WHERE clause
   - Logical operators and conditions

9. Aggregate Functions
   - COUNT, SUM, AVG, MIN, MAX
   - Grouping data with aggregates

10. Data Grouping, Filtering Groups
    - GROUP BY clause
    - HAVING clause for group filtering

11. Retrieving Data from Multiple Tables – Joining Tables
    - JOIN operations
    - Practical examples of data joining

12. Inner and Outer Joins, Cartesian Product
    - Differences between join types
    - When to use each type

13. Single-row and Multi-row Subqueries
    - Subquery basics
    - Practical applications of subqueries
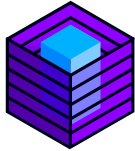
14. Set Operators
    - UNION, INTERSECT, EXCEPT
    - Combining results from multiple queries

15. Windows Functions
    - ROW_NUMBER, RANK, DENSE_RANK, LAG, LEAD, FIRST_VALUE, LAST_VALUE
    - Windowing operations and use cases

16. DML – Inserting, Deleting, and Updating Records in the Database
    - INSERT statements
    - UPDATE and DELETE operations

17. Working with Semi-Structured Data
    - JSON, Avro, and other formats
    - Querying semi-structured data

18. DDL – Creating Tables, Data Types
    - CREATE TABLE statement
    - Data types and constraints
    - Comments useful for co-pilot

19. Time Travel & Cloning
    - Data recovery and historical data access
    - Cloning for data replication

20. Views – Creating and Retrieving Data
    - Creating and managing views
    - Use cases for views

Acquired skills

By the end of this workshop, participants will be well-equipped with the knowledge and hands-on experience needed to leverage Snowflake for data analysis..

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