Google Cloud

Migrating Snowflake Users to BigQuery

In this course you will learn how to translate various concepts in Snowflake to the analogous concepts in BigQuery. You will learn how the high-level architectures of Snowflake and BigQuery compare, understand differences in how to configure datasets and tables, map data types in Snowflake to data types in BigQuery, understand schema mapping from Snowflake to BigQuery, optimize your new schemas in BigQuery, and do a high-level comparison of SQL dialects in Snowflake and BigQuery.

DURATION
1 day

LEVEL
Introductory

FORMAT
Instructor led

What you'll learn

- Compare architecture and provisioning of resources in Snowflake and BigQuery
- Configure datasets and tables in BigQuery
- Map and compare data types in Snowflake to data types in BigQuery
- Map and optimize schemas from Snowflake to BigQuery
- Translate SQL from Snowflake to BigQuery

Overview	5 modules · 3 labs
Who this course is for	Customers
Products	BigQuery
Prerequisite	None
Not covered	• Detailed instructions for all activities required to migrate from Snowflake to BigQuery. • Solutions for every use case of migrating Snowflake in BigQuery. Our goal is to create a solid foundation your journey from Snowflake to BigQuery • This is not a replacement for more detailed BigQuery specific training nor BigQuery documentation.

Module 01 Understanding BigQuery Architecture

Topics	• Quick reminder of Snowflake architecture • Overview of BigQuery architecture • Separation of compute and storage in BigQuery • BigQuery Slots • Workload management in BigQuery
Objectives	• Compare architecture and provisioning of resources in Snowflake and BigQuery • Describe the concept of a slot in BigQuery

Module 02 Creating Datasets and Tables in BigQuery

Topics	• Resource Hierarchy in Snowflake • Resource Hierarchy in BigQuery • Creating resources in BigQuery • Sharing resources in BigQuery
Objectives	• Understand the resource hierarchy in BigQuery • Configure datasets and tables in BigQuery
Activities	Lab: Provisioning and Managing Resources in BigQuery

Module 03 Mapping Data Types from Snowflake to BigQuery

Topics
- Mapping for data types from Snowflake to BigQuery
- Data types unique to BigQuery

Objectives
- How data types map from Snowflake to BigQuery
- Understand data types unique to BigQuery

Module 04 Schema Optimization and Mapping

Topics
- Schema definitions in BigQuery
- Partitioning in BigQuery
- Clustering in BigQuery

Objectives
- Define schemas in BigQuery
- Implement partitioning and clustering in BigQuery

Activities
Lab: Schema Migration to BigQuery

Module 05 SQL Translation from Snowflake to BigQuery

Topics
- SELECT statements
- DML statements
- DDL statements
- UDFs and Procedures

Objectives
- Understand query capabilities in BigQuery SQL
- Write user-defined functions and procedures in BigQuery SQL

Activities
Lab: Writing SQL for BigQuery