





Migrating Amazon Redshift Users to BigQuery

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

 **DURATION**
1 day

 **LEVEL**
Introductory

 **FORMAT**
Instructor led

What you'll learn

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



Overview	5 modules · 3 labs
Who this course is for	Customers
Products	BigQuery
Prerequisite	Experience using Amazon Redshift as a data warehouse for managing data and performing SQL analysis. Basic experience with BigQuery is recommended, but not required for this course.
Not covered	<ul style="list-style-type: none">• Detailed instructions for all activities required to migrate from Amazon Redshift to BigQuery.• Solutions for every use case of migrating Amazon Redshift in BigQuery. Our goal is to create a solid foundation your journey from Amazon Redshift to BigQuery• This is not a replacement for more detailed BigQuery specific training nor BigQuery documentation.

Module 01 Understanding BigQuery Architecture

Topics	<ul style="list-style-type: none">• Quick reminder of Amazon Redshift architecture• Overview of BigQuery architecture• Separation of compute and storage in BigQuery• BigQuery Slots• Workload management in BigQuery
Objectives	<ul style="list-style-type: none">• Compare architecture and provisioning of resources in Amazon Redshift and BigQuery• Describe the concept of a slot in BigQuery

Module 02 Creating Datasets and Tables in BigQuery

Topics	<ul style="list-style-type: none">• Resource Hierarchy in Amazon Redshift• Resource Hierarchy in BigQuery• Creating resources in BigQuery• Sharing resources in BigQuery
Objectives	<ul style="list-style-type: none">• 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 Amazon Redshift to BigQuery

- Topics**
- Mapping for data types from Amazon Redshift to BigQuery
 - Data types unique to BigQuery
- Objectives**
- How data types map from Amazon Redshift to BigQuery
 - Understand data types unique to BigQuery
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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
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Module 05 SQL Translation from Amazon Redshift 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

