

BigQuery for Data Warehousing

Fundamental 6 Steps 6 hours 25 Credits

Looking to build or optimize your data warehouse? Learn best practices to Extract, Transform, and Load your data into Google Cloud with BigQuery. In this series of interactive labs you will create and optimize your own data warehouse using a variety of large-scale BigQuery public datasets. BigQuery is Google's fully managed, NoOps, low cost analytics database. With BigQuery you can query terabytes and terabytes of data without having any infrastructure to manage or needing a database administrator. BigQuery uses SQL and can take advantage of the pay-as-you-go model. BigQuery allows you to focus on analyzing data to find meaningful insights. Looking for a hands on challenge lab to demonstrate your skills and validate your knowledge? On completing this quest, enroll in and finish the additional challenge lab at the end of [this quest](#) to receive an exclusive Google Cloud digital badge.

Prerequisites:

It is recommended but not required that students have a familiarity with data and spreadsheets.

Quest Outline

[BigQuery: Qwik Start - Command Line](#)

This hands-on lab shows you how to query public tables and load sample data into BigQuery using the Command Line Interface. Watch the short videos [Get Meaningful Insights with Google BigQuery](#) and [BigQuery: Qwik Start - Qwiklabs Preview](#).

30 minutes

Introductory

Free

[Creating a Data Warehouse Through Joins and Unions](#)

This lab focuses on how to create new reporting tables using SQL JOINS and UNIONS.

1 hour

Fundamental

5 Credits

[Creating Date-Partitioned Tables in BigQuery](#)

This lab focuses on how to query partitioned datasets and how to create your own dataset partitions to improve query performance, which reduces cost.

1 hour

Fundamental

5 Credits

[Troubleshooting and Solving Data Join Pitfalls](#)

This lab focuses on how to reverse-engineer the relationships between data tables and the pitfalls to avoid when joining them together.

1 hour

Fundamental

5 Credits

[Working with JSON, Arrays, and Structs in BigQuery](#)

In this lab you will work with semi-structured data (ingesting JSON, Array data types) inside of BigQuery. You will practice loading, querying, troubleshooting, and unnesting various semi-structured datasets.

1 hour

Fundamental

5 Credits

[Build and Execute MySQL, PostgreSQL, and SQLServer to Data Catalog Connectors](#)

In this lab you will explore existing datasets with Data Catalog and mine the table and column metadata for insights.

1 hour

Fundamental

5 Credits

Quest Complete!

Congrats! You completed this quest and earned a badge. Become a cloud expert and start another.

