Google Cloud

Developing Data Models with LookML

This course empowers you to develop scalable, performant Looker Modeling Language (LookML) models that provide your business users with the standardized, ready-to-use data that they need to answer their questions. Upon completing this course, you will be able to start building and maintaining LookML models to curate and manage data in your organization's Looker instance.

DURATION
On-demand: 7 hours
ILT: 1 day

LEVEL
Intermediate

FORMAT
Instructor led
On-demand

What you'll learn

- Define LookML basic terms and building blocks.
- Model new dimensions and measures using LookML.
- Use dashboards to combine key queries and visualizations into a one-page executive view.
- Model files of LookML projects to design and build custom Explores for business users.
- Use derived tables to create new custom tables that do not exist in the underlying database.
- Explain how caching works and how developers can use datagroups to manage caching policies.

Overview	4 modules · 26 videos · 2 labs · 6 demos · 4 quizzes
Who this course is for	This course is primarily intended for the following participants: • Data developers who are responsible for data curation and management within their organizations. • Data analysts interested in learning how data developers use LookML to curate and manage data in their organization's Looker instance.
Products	Looker
Prerequisite	To get the most out of this course, participants should have a basic understanding of SQL, Git, and the Looker business user experience. For learners with no previous experience as data explorers in Looker, it is recommended to first complete Analyzing and Visualizing Data in Looker.
Not covered	• Analyzing data in Explores. • Creating and sharing visualizations and dashboards. • Using Looker administrative features and functions.

Module 01 Introducing Looker and LookML

Topics	• Looker and LookML • The Looker user interface • Example 1: The Looker IDE • LookML project version control • Example 2: Git workflow in Looker • How Looker writes SQL
Objectives	• Articulate the benefits of using LookML for data modeling and analysis. • Identify the primary components of the Looker user interface. • Identify the target users and functions of key Looker UI elements. • Define core Looker platform and LookML terminology. • Understand the basic integration between Looker and Git for version control. • Describe the LookML development lifecycle, including writing, validation, merging, and deployment processes. • Recognize how Looker reads, parses, and writes SQL. • Explain the relationship between SQL and the LookML modeling language.
Activities	• 2 demos • 1 quiz

Module 02 Data Modeling Using LookML

Topics

- Anatomy of a LookML project
- Modeling dimensions
- Example 3: Creating dimensions using LookML
- Modeling measures
- Example 4: Modeling measures using LookML
- Dimension and measure modeling logic
- LookML dashboards
- Lab 1: Creating dimensions and measures with LookML

Objectives

- Detail the hierarchical layers contained within a LookML project.
- Convert between user-defined and LookML dashboards.
- Construct dimensions and measures within a Looker Explore, defining appropriate data types, formats, and calculations.
- Locate dimensions, measures, and dashboards in the Looker IDE.
- Understand how dimensions and measures connect IDE development to Explore usage.
- Model complex dimensions for enhanced user experience in Looker.
- List the features and basic functionality of a LookML dashboard.
- Convert between user-defined and LookML dashboards.

Activities

- 1 quiz
- 2 demos
- 1 lab

Module 03 Modeling Explores for Your Users

Topics

- Modeling new Explores
- Using LookML to filter Explores
- Understanding symmetric aggregation

Objectives

- Create new Explores and filters in the Looker IDE.
- Connect Explores and filters to end-user data exploration.
- Understand symmetric aggregation for data analysis in Looker.

Activities

1 quiz

Module 04 Working with Derived Tables

Topics

- Introducing derived tables
- Types of derived tables

Topics

- Example 5: Using SQL derived tables
- Example 6: Using native derived tables
- Native derived table parameters
- Using persistent derived tables
- Caching and datagroups
- Implementing datagroups in Looker
- Lab 2: Creating Derived Tables with LookML

Objectives

- Understand derived tables, including SQL, native, and persistent types, and their respective purposes.
- Identify appropriate use cases for derived tables and select the optimal type based on specific requirements.
- Explain how derived tables enhance data analysis efficiency and effectiveness in Looker.
- Locate the creation points for SQL, native, and persistent derived tables within the Looker UI.
- Describe the process of creating SQL, native, and persistent derived tables in Looker.
- Identify the two key parameters used in native derived tables.
- Identify optional parameters for optimizing native derived table performance and functionality.
- Define caching and datagroups in the context of Looker.
- Determine when to implement caching and datagroups for query optimization.
- Evaluate the impact of caching and datagroups on overall Looker performance and user experience.

Activities

- 2 demos
- 1 quiz
- 1 lab