






# Looker Developer Deep Dive

LookML not only serves as the foundation for visualization assets in Looker, but is also capable of dynamic aggregations, incrementally refreshed persistent derived tables, and more. In this course you will practice the skills to be an advanced Looker Developer through guided lectures and independent exercises using sample data.

 **DURATION**  
2 days

 **LEVEL**  
Advanced

 **FORMAT**  
Instructor led

## What you'll learn

- Customize and incrementally refresh SQL and native derived tables
- Incorporate Liquid for dynamic SQL, formatting, templated filters, and parameters in Looker
- Use extends and refinements in Looker to modularize and organize your LookML
- Troubleshoot LookML code and improve performance
- Apply Looker best practices to your LookML projects
- Manage Looker deployments using DevOps practices
- Embed Looker content into web applications



Overview	7 modules · 6 labs
Who this course is for	Customers
Products	Looker
Prerequisite	Completion of the “Developing Data Models with LookML” course or the equivalent experience in using LookML for development in Looker.

## Module 01 Looker Admin and LookML Fundamentals

Topics	<ul style="list-style-type: none"><li>• Looker Review</li><li>• Roles and User Attributes</li><li>• Connecting to a Database</li><li>• LookML Review</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Review key concepts of Looker and LookML development</li><li>• Describe roles and user attributes in Looker</li><li>• Explain how to connect your Looker instance to a database</li></ul>
Activities	Lab: Starter LookML Cleanup

## Module 02 Diving Deeper into Derived Tables

Topics	<ul style="list-style-type: none"><li>• Understanding Derived Tables</li><li>• Adding Persistence</li><li>• Refreshing Incrementally</li><li>• PDTs and Performance</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Define derived tables and advantages of native derived tables</li><li>• Maintain derived tables in Looker</li><li>• Describe performance implications of different PDT options</li></ul>
Activities	Lab: Extending LookML with PDTs and Aggregate Tabl

## Module 03 Creating Dynamic LookML with Liquid

Topics	<ul style="list-style-type: none"><li>• Core Liquid Concepts and Syntax</li><li>• Custom Links, Drills, and Formatting</li></ul>
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Topics	<ul style="list-style-type: none"><li>• Templated Filters, Parameters and Dynamic SQL</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Core Liquid Concepts and Syntax</li><li>• Custom Links, Drills, and Formatting</li><li>• Templated Filters, Parameters and Dynamic SQL</li></ul>
Activities	Lab: Enhancing LookML Flexibility with Liquid

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## Module 04    Creating Modular LookML

Topics	<ul style="list-style-type: none"><li>• Extensions</li><li>• Refinements</li><li>• Manifests and Localization</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Use extends and refinements in Looker to modularize and organize your LookML</li><li>• Implement localization into your LookML models</li></ul>
Activities	Lab: Modularize your LookML

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## Module 05    Testing, Debugging and DevOps

Topics	<ul style="list-style-type: none"><li>• Leverage your IDE</li><li>• Debugging and Common Errors</li><li>• Data Tests</li><li>• Looker and DevOps</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Utilize the Looker IDE to ease development and debugging of LookML.</li><li>• Write data tests to ensure validity of your Looker dashboards</li><li>• Understand DevOps best practices in Looker</li></ul>
Activities	Lab: Testing and debugging LookML

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## Module 06    Looker Best Practices

Topics	<ul style="list-style-type: none"><li>• Looker Best Practices</li><li>• Improving Performance</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Understand Looker best practices</li><li>• Implement best practices in LookML to improve performance</li></ul>
Activities	Lab: Implementing LookML Best Practices



## Module 07    Embedded Looker Analytics

### Topics

- Explore Embedded Looker Options
- Using Private and SSO Embedding

### Objectives

- Explore options for embedding Looker content
- Understand how to use private and SSO embedding

