

Data Modeling for Qlik Sense

Course Duration: 3 Days

Pre-requisite:

- Create Visualizations with Qlik Sense
- Database and SQL query knowledge
- Understanding Data Principles

Course Description:

Data Modeling for Qlik Sense is a technical course for you to learn to develop a coherent data model in Qlik Sense by loading and transforming multiple data sources. With information, tools, techniques, and exercises, this course includes topics dealing with: maintaining data connections, transforming source data, architecting data models, optimizing for performance, and application development on Qlik Sense Enterprise.

Audience

- Business Analysts
- Data Architects

Skills Learned

- Create a data model in Qlik Sense
- Use the Data Load Editor and the Data Manager
- Create and maintain data connections
- Resolve data structure issues and script errors
- Transform data for better performance
- Discuss synthetic keys and circular references
- Add dimensions and measures to the master library
- Add simple visualizations with Qlik Sense

Course Outline

- Modeling data with Qlik Sense
- Sourcing and loading data

- Resolving common modeling issues
- Generating data
- Combining tables
- Handling advanced modeling challenges
- Developing and Debugging
- Applying finishing touches
- Exploring security and advanced concepts

Module 1: Data Load Basics

- Compare 'Add data from files and other sources' vs. 'Script editor' data load workflows
- Associations Between Data Tables
- Enter Data Manually
- Load Data in Other Qlik Sense Deployments
- Data Catalog to profile data

Module 2: Reload data for Analysis

- Introduction to Reloading Data
- Reload Data to Correct an Error in the Data Source
- Reload Data After a Column is Added to the Data Source
- Replace or Add Rows to an Existing Data Table
- Reload Data in Different Qlik Sense Deployments

Module 3: Introduction to the Data Manager

- Introduction to the Data Manager
- The Data Manager's Associations Bubble View
- Geodata Derived by the Data Manager
- Date Groupings Derived by the Data Manager
- Evaluate and Edit Data Tables and Fields
- Other Data Manager Capabilities
- Understand How the Data Manager Generates Data Load Script
- Data Manager Concept Review

Module 4: Data Manager Calculations and Transformation

- Introduction to Calculations and Transformations in the Data Manager View
- Use the Split Card to Parse Field Contents
- Use the Replace Card and Set Nulls Card to Modify Field Contents
- Use the Order Card to Set the Sort Order for Dimension Values
- Use the Data Manager to Create Calculated Fields
- Use the Unpivot Tool to Create a Tall-thin Layout
- Data Manager Calculations and Transformations Concept Review

Module 5: Data Manager Associations, Concatenations and Joins

- Loading Data from a Single Table
- Add a Data Table to an Existing Data Model
- Add Multiple Data Tables to an App
- Use the Data Manager to Avoid Invalid Associations
- Create an Association which is Not Recommended
- Concatenate Tables from Separate Sources into a Single Table
- Apply Different Join Options to Merge Separate Tables
- Data Manager Associations, Concatenations and Joins Concept Review

Module 6: Introduction to the Data model viewer

- Introduction to this Learning Module
- Data Model Viewer Capabilities
- Use the Data Model Viewer to Evaluate Associations
- Review Data Model Viewer Capabilities
- Use the Data Model Viewer to Evaluate Association Issues
- Use the Data Model Viewer to Evaluate Circular References
- Use the Data Model Viewer to Evaluate Synthetic Keys
- Review Potential Data Model Issues

Module 7: Data Load Editor Orientation

- Modifying SET Statements and Connecting Data to an App
- Transforming Script Expressions and Loading Data
- Exploring Add Data Options and Confirming the Data Model

Module 8: Considerations when loading Data from Excel

- Compare Options for Loading Excel Data
- Expected Excel Data Layout and Quick Fixes

Module 9: Understanding the differences between client-managed and SaaS Edition of Qlik Sense

- Introduction to Qlik Sense SaaS
- Creating an app
- Interacting with an app
- Automating tasks

Module 10: Loading Data from a Database

- Introduction to Loading Data from a Database
- Creating a Database Connection
- Extracting Data Using a Database Connection
- Loading from Views and Stored Procedures

Module 11: Associating Tables and Transforming Data

- The Importance of Table Association and Data Transformation
- Connecting and Loading Data
- Control Table Associations by Aliasing Field Names
- Transforming Data with Applicable Expressions
- Simplify Data Logic by Stacking Preceding Loads

Module 12: Use Data Catalog to Profile Data

- Data Catalog capabilities
- Data Catalog's profile tools

Module 13: Resolving Data Model Issues

- Identify synthetic keys in a data model
- Resolve synthetic keys using several methods

- Encounter circular references in data models
- Create concatenated keys
- Use the QUALIFY statement to fully qualify field names

Module 14: Debugging the Script

- Locate and identify errors in the data load script
- Use the debugging tool in the Data load editor
- Review stored execution and reload logs

Module 15: Validating the Model

- Incorporate a data comparison table in a data model
- Create a validation object in the app
- Use counter fields to facilitate accurate row counting