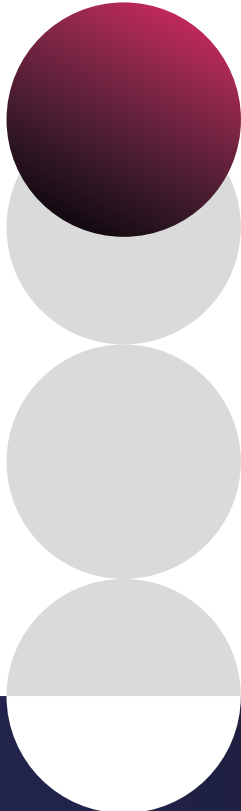


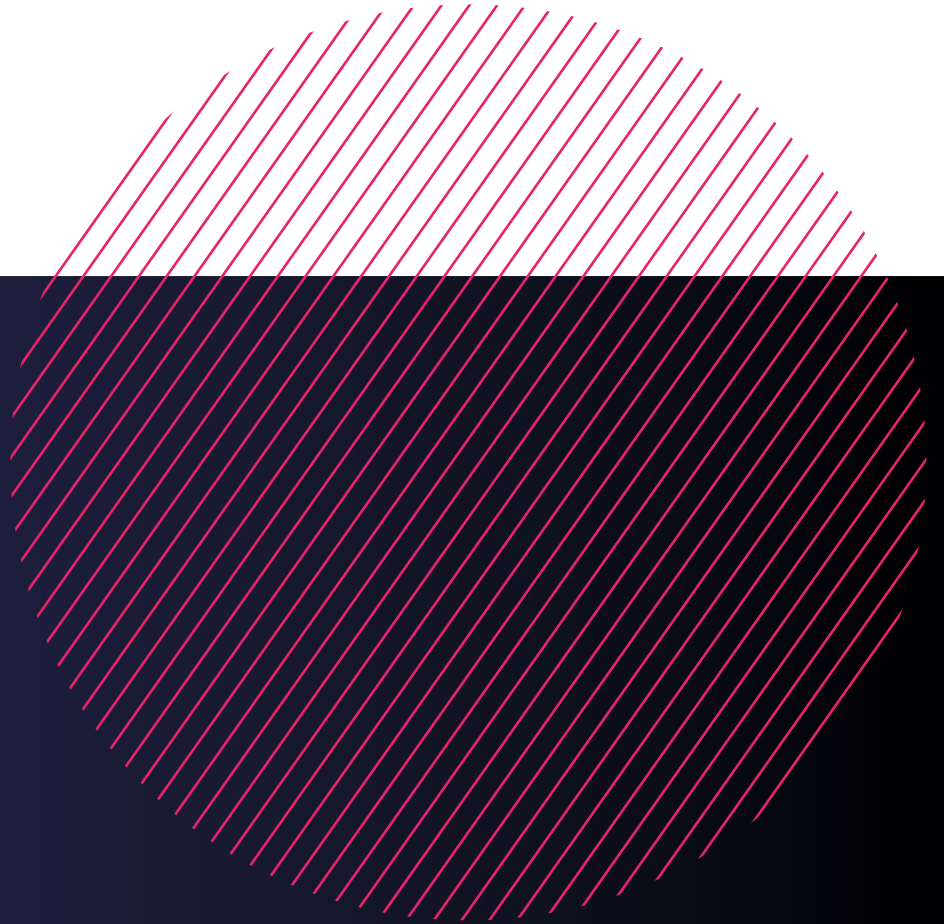


QLIK SENSE COURSE

# Data modeling for Qlik Sense



BE-TERNA QLIK SENSE COURSE



# Introduction

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**Data Modeling for Qlik Sense** is a technical course for you to become knowledgeable in loading and transforming data within Qlik Sense, as well as building an optimized data model structure.

With information, tools, techniques, and exercises, this course includes topics dealing with data connections, cleansing, manipulating, and transforming, resolving data model issues, optimization, using QVD files and application development on Qlik Sense server. Qlik Sense is not only a powerful BI Visualization tool, but it is also an effective ETL (Extract Transform and Load) software, and it allows us connect data from any kind of different sources, link them together, create metrics and optimize data structure.

Throughout this course, with hands-on activities and challenges, you will learn key points for fast data surfing and analysis and consider the winning point of a data analytics tool. You will look at this great feature and create Data Model, linking data from a mix of sources, different techniques that can be used to associate tables, create metrics, moves fields from one table to another, joins and concatenations. This course combines theoretical concepts with demonstrations and hands-on exercises to teach the essential concepts for data modeling and creating effective reporting data models that can support self-service visualization.

After completing this course, you can test your fundamental-level and applied knowledge of data modeling in Qlik Sense and earn a **Qlik Sense Business Data Architect Qualification**.

## COURSE OBJECTIVES AND INTENDED SKILLS

- ◇ 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
- ◇ Perform advanced analysis in a Qlik Sense app (Set analysis)

## THIS COURSE IS RECOMMENDED FOR THE FOLLOWING USER ROLES:

- Data engineer
- Analytics Professionals
- Data architects
- Data Scientists
- Business Intelligence and Reporting Professional

# Data modeling modules

## 01. MODELING DATA WITH QLIK SENSE

### Objectives

1. Describe the components of a Qlik Sense app
2. State the Qlik Sense deployment options and their components
3. Describe a relational database management system
4. Explain different data modeling structures
5. Understand the Qlik Sense platform
6. Explain how to create a new app
7. Navigate the Data load editor

### Topics

- ◇ Qlik Sense deployment architecture
- ◇ Data sources and data structures
- ◇ Working with Qlik Sense
- ◇ Creating a new app
- ◇ Data load editor environment

## 02. SOURCING AND LOADING DATA

### Objectives

1. Explain the different connection types in Qlik Sense
2. Create a load and selection statement
3. Apply comments
4. Compare data structures
5. Use the Data model viewer
6. Load data from Excel spreadsheets and text files
7. Create data connections to folders of file locations
8. Use the Select data tool to generate the script

### Topics

- ◇ Data Connections
- ◇ Extracting data from a database
- ◇ Data model viewer
- ◇ Loading file data

## 03. RESOLVING COMMON MODELING ISSUES

### Objectives

1. Describe what synthetic keys and synthetic tables are
2. Solve synthetic keys
3. Explain key fields
4. Explain Count and Sum
5. Describe circular references
6. Explain loosely coupled tables
7. Leverage Qualify and Unqualify
8. Use transformation functions in the script

### Topics

- ◇ Synthetic keys
- ◇ Counting table records
- ◇ Circular references
- ◇ Basic data transformation

## 04. GENERATING DATA

### Objectives

1. Create new fields in a table
2. Explain the Where clause
3. Use Resident Load
4. Explain composite keys
5. Explain how Qlik Sense uses dates and times
6. Discuss how to use AutoGenerate
7. Create a master calendar

### Topics

- ◇ Adding calculated fields to a table
- ◇ Limiting and re-using data
- ◇ Creating composite keys
- ◇ Master calendar
- ◇ Combining tables

## 05. COMBINING TABLES

### Objectives

1. Explain the mapping tables concept
2. Identify when to use mapping tables
3. Identify areas to clean up in the data model
4. Use preceding loads within the script
5. Joining tables
6. Explain concatenation
7. Describe the concatenation types

### Topics

- ◇ Mapping tables
- ◇ Preceding Load
- ◇ Joining tables
- ◇ Concatenation

## 06. HANDLING ADVANCED MODELING CHALLENGES

### Objectives

1. Describe why and how to aggregate data in the script
2. Identify Crosstable data
3. Explain how to create scripts to load Crosstable data
4. Explain the use of Link tables
5. Explain data specification
6. Describe how to implement a data classification approach in Qlik Sense

### Topics

- ◇ Aggregating tables
- ◇ Cross tables
- ◇ Link tables
- ◇ Data classification

## 07. DEVELOPING AND DEBUGGING

### Objectives

1. Explain how to use script variables
2. Describe the use of Let and Set statements
3. Explain the use of dollar-sign expansion
4. Load data using external scripts with Include
5. Control the flow of script execution
6. Explain how to debug a data load

### Topics

- ◇ Controlling script execution
- ◇ Reusing script
- ◇ Script variables
- ◇ Debugging script

## 08. APPLYING FINISHING TOUCHES

### Objectives

1. Define and use set analysis and its components
2. Draw upon basic and advanced expression calculations
3. Add Master items
4. Create data islands and review their usage
5. Leverage QVD files
6. Discuss performance tuning
7. Explore the impacts of appropriate document design
8. Review best practices

### Topics

- ◇ Set analysis
- ◇ Basic and advanced expression calculations
- ◇ Master items
- ◇ Data islands
- ◇ QVD files
- ◇ Performance considerations

## 09. EXPLORING SECURITY AND ADVANCED CONCEPTS

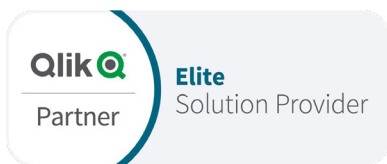
### Objectives

1. Explain Qlik Big Data methodologies
2. Introduce On-Demand App Generation (ODAG)
3. Learn how to use Direct Query
4. Describe the benefits of server-side development
5. Deploy security with Section Access
6. Discuss dynamic data reduction
7. Understand the data analytics spectrum

### Topics

- ◇ Big Data with Qlik Sense (QSD/QSE)
- ◇ Working with a server (QSD/QSE)
- ◇ Managing security with Section Access (QSE/QSE)
- ◇ Advanced Analytics Integration in Qlik Sense (Optional)





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