

# HA300

## SAP HANA Modeling

### COURSE OUTLINE

Course Version: 12

Course Duration: 5 Day(s)

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# Typographic Conventions

American English is the standard used in this handbook.

The following typographic conventions are also used.

This information is displayed in the instructor's presentation	
Demonstration	
Procedure	
Warning or Caution	
Hint	
Related or Additional Information	
Facilitated Discussion	
User interface control	<i>Example text</i>
Window title	<i>Example text</i>



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# Course Overview

## **TARGET AUDIENCE**

This course is intended for the following audiences:

- Application Consultant
- Data Consultant/Manager
- Database Administrator





## Lesson 1: Introducing Information Views

### Lesson Objectives

After completing this lesson, you will be able to:

- Explain information views
- Describe the main types of information views

## Lesson 2: Connecting Tables

### Lesson Objectives

After completing this lesson, you will be able to:

- Connect Tables
- Determine the type of join to use when connecting tables

## Lesson 3: Creating Dimension Calculation Views

### Lesson Objectives

After completing this lesson, you will be able to:

- Create Dimension Calculation views
- Define calculated attributes
- Create time-based dimension views
- Use base table aliases
- Define label columns and hide attributes in a Dimension Calculation View

## Lesson 4: Using Measures in Calculation Views

### Lesson Objectives

After completing this lesson, you will be able to:

- Use measures in Calculation Views
- Explain the benefits of each type of node in Calculation Views
- Create and combine nodes in Calculation Views

- Use the features of Calculation Views to enhance the flexibility of this type of view

## **Lesson 5: Understanding Deprecated Graphical Views**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Explain Attribute Views and Analytic Views (Deprecated View Types)

## Lesson 1: Using Hierarchies

### Lesson Objectives

After completing this lesson, you will be able to:

- Use hierarchies
- Create parent-child hierarchies
- Work with time-based hierarchies

## Lesson 2: Creating Restricted and Calculated Columns

### Lesson Objectives

After completing this lesson, you will be able to:

- Create restricted and calculated columns
- Create Restricted Columns
- Create calculated columns

## Lesson 3: Filtering Data

### Lesson Objectives

After completing this lesson, you will be able to:

- Filter data
- Create client dependent views
- Restrict data when modeling using domain fix values

## Lesson 4: Using Variables and Input Parameters

### Lesson Objectives

After completing this lesson, you will be able to:

- Use variables and input parameters
- Create variables and use them to filter data
- Create input parameters

## **Lesson 5: Implementing Currency Conversion**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Explain the general principles of currency conversion
- Apply currency conversion in Calculation Views

## **Lesson 6: Creating Decision Tables**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Create decision tables
- Consume decision tables in Calculation Views

## Lesson 1: Introducing SAP HANA SQL

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe SAP HANA SQL

## Lesson 2: Working with SQLScript

### Lesson Objectives

After completing this lesson, you will be able to:

- Work with SQLScript
- Explain the SQLScript implementation logic

## Lesson 3: Creating and Using Procedures

### Lesson Objectives

After completing this lesson, you will be able to:

- Create and use procedures
- Create a procedure
- Call a procedure

## Lesson 4: Using SQLScript Debug Tools

### Lesson Objectives

After completing this lesson, you will be able to:

- Use SQLScript Debug Tools

## Lesson 5: Understanding Deprecated SQL Modeling Objects

### Lesson Objectives

After completing this lesson, you will be able to:

- Understand Deprecated Modeling Objects



## Lesson 1: Getting Started with SAP HANA Live

### Lesson Objectives

After completing this lesson, you will be able to:

- Get started with SAP HANA Live

## Lesson 2: Understanding the Virtual Data Model

### Lesson Objectives

After completing this lesson, you will be able to:

- Understand the Virtual Data Model

## Lesson 3: Discovering and Consuming SAP HANA Live Views

### Lesson Objectives

After completing this lesson, you will be able to:

- Discover and consume SAP HANA Live views

## Lesson 4: Modifying SAP HANA Live Models

### Lesson Objectives

After completing this lesson, you will be able to:

- Modify SAP HANA Live Views
- Use the SAP HANA Live Extension Assistant

## Lesson 5: Building a Virtual Data Model with CDS Views

### Lesson Objectives

After completing this lesson, you will be able to:

- Leverage CDS Views to create a Virtual Data Model





## Lesson 1: Implementing Full Text Search and Text Analysis

### Lesson Objectives

After completing this lesson, you will be able to:

- Explain the Full Text Search capabilities of SAP HANA
- Invoke the text search processes
- Create a Fuzzy Search
- Explain Text Analysis

## Lesson 2: Defining Full Text Indexes

### Lesson Objectives

After completing this lesson, you will be able to:

- Define full text indexes
- Explain which data types can be indexed for Full Text Search
- Enable columns for Full Text Search in SAP HANA tables

## Lesson 3: Using Full Text Search

### Lesson Objectives

After completing this lesson, you will be able to:

- Use Full Text Search
- Use Fuzzy Search
- Explain Fuzzy Search relevance scoring
- Use Freestyle Search

## Lesson 4: Working with Geospatial Data

### Lesson Objectives

After completing this lesson, you will be able to:

- Work with Geospatial Data

- Query geographical data using SQL

## **Lesson 5: Developing Predictive Models**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Develop a predictive model using SAP HANA Predictive Analysis Library

## **Lesson 6: Working with SAP HANA Graph**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe graph processing with SAP HANA

## Lesson 1: Processing and Analyzing Information Models

### Lesson Objectives

After completing this lesson, you will be able to:

- Process and analyze models
- Compare different versions of an Information Model
- Check model references
- Generate auto documentation
- Execute a Performance Analysis of an Information Model

## Lesson 2: Managing Modeling Content

### Lesson Objectives

After completing this lesson, you will be able to:

- Manage modeling content
- Define package-specific authoring schema
- Transport information models between two systems
- Move and copy information models within a system
- Take over an information model edited by another user
- Translate metadata texts

## Lesson 3: Converting Deprecated Information Objects

### Lesson Objectives

After completing this lesson, you will be able to:

- Convert Attribute and Analytic Views into Calculation Views
- Convert Scripted Calculation Views into Table Functions



## Lesson 1: Understanding Roles and Privileges

### Lesson Objectives

After completing this lesson, you will be able to:

- Understand roles and privileges
- Explain how Users, Roles and Privileges are used to implement Objects and Data Access security in SAP HANA

## Lesson 2: Defining Privileges

### Lesson Objectives

After completing this lesson, you will be able to:

- Define privileges
- Explain how to grant the relevant privileges to the Modeler and End-User

## Lesson 3: Generating SAP HANA Live Privileges

### Lesson Objectives

After completing this lesson, you will be able to:

- Generate SAP HANA Live Privileges

## Lesson 4: Migrating Analytic Privileges

### Lesson Objectives

After completing this lesson, you will be able to:

- Convert Classical Analytic Privileges to SQL-Based Analytic Privileges



## Lesson 1: Applying Good Modeling Approaches

### Lesson Objectives

After completing this lesson, you will be able to:

- Apply good modeling approaches to SAP HANA

## Lesson 2: Understanding the Cost of SQL Statements

### Lesson Objectives

After completing this lesson, you will be able to:

- Understanding the cost of SQL Statements