

BW430

SAP BW/4HANA Data Modeling

COURSE OUTLINE

Course Version: 14

Course Duration: 5 Day(s)

SAP Copyrights and Trademarks

© 2018 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see <http://global12.sap.com/corporate-en/legal/copyright/index.epx> for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.








These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

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>

Contents

vii **Course Overview**

1 Unit 1: Challenges for Data Modeling

- 1 Lesson: Introduction to Data Modelling
- 1 Lesson: Solving Requirement Conflicts

3 Unit 2: Overview about the Business Case

- 3 Lesson: Getting to know the IteIO Case Study
- 3 Lesson: Understanding the ERP Model

5 Unit 3: Modeling Approaches in SAP BW/4HANA

- 5 Lesson: Introducing SAP HANA modeling
- 5 Lesson: Advantages and issues of SAP BW/4HANA modeling
- 5 Lesson: Comparing SAP BW/4HANA focus, SAP HANA focus and mixed strategies
- 5 Lesson: The Future of Data Warehousing

7 Unit 4: Best Practice Standards in BW/4HANA Modeling

- 7 Lesson: Understanding Object Changeability
- 7 Lesson: Separating Master Data and Transactional Data
- 7 Lesson: Tracking History
- 7 Lesson: Mapping and Transforming Data
- 7 Lesson: Designing a BW/4HANA Layered Scalable Architecture (LSA++)
- 7 Lesson: Understanding Physical and Logical Partitioning

9 Unit 5: Process of Modeling

- 9 Lesson: Defining the Sequence of SAP BW Projects
- 9 Lesson: Planning the Phases of a SAP BW/4HANA Project
- 9 Lesson: Developing a SAP BW/4HANA Data Model

11 Unit 6: SAP BW/4HANA Content Add-On

- 11 Lesson: Working with SAP Business Content
- 11 Lesson: Introducing ABAP CDS Views provided by SAP BW/4HANA

13 Unit 7: Implementing SAP BW/4HANA Field-Based Rapid Prototyping

- 13 Lesson: Implementing Field-Based Modeling with Open ODS Views
- 13 Lesson: Understanding Snapshot and Corporate Memory Models

15	Unit 8:	Implementing Models in SAP BW/4HANA
15		Lesson: Modeling and Implementing SAP BW/4HANA Master Data
15		Lesson: Modeling and Implementing Advanced DataStore Objects (ADSOs)
15		Lesson: Modeling and Implementing InfoSources and Transformations
15		Lesson: Modeling and Implementing CompositeProviders
17	Unit 9:	Implementing Native SAP HANA Views
17		Lesson: Modeling Master Data in SAP HANA Views
17		Lesson: Modeling Transactional Data in SAP HANA Views
17		Lesson: Loading Data from Calculation Views
19	Unit 10:	Implementing Agile Data Marts
19		Lesson: Generating External SAP HANA Views for SAP BW/4HANA Objects
19		Lesson: Implementing Mixed Scenarios
21	Unit 11:	Implementing SAP BW/4HANA Workspaces
21		Lesson: Implementing BW/4HANA Workspaces
21		Lesson: Implementing Local Composite Providers
23	Unit 12:	Advanced Modeling in SAP BW/4HANA
23		Lesson: Introducing the HANA Analysis Process (HAP)
23		Lesson: Defining Inventory Scenarios
23		Lesson: Stock Coverage
23		Lesson: Planning Mode
23		Lesson: Additional SAP BW/4HANA Sources

Course Overview

TARGET AUDIENCE

This course is intended for the following audiences:

Lesson 1: Introduction to Data Modelling

Lesson Objectives

After completing this lesson, you will be able to:

- Understand Modeling Issues

Lesson 2: Solving Requirement Conflicts

Lesson Objectives

After completing this lesson, you will be able to:

- Solving Requirement Conflicts

Lesson 1: Getting to know the ItelO Case Study

Lesson Objectives

After completing this lesson, you will be able to:

- Get to know the ItelO Case Study

Lesson 2: Understanding the ERP Model

Lesson Objectives

After completing this lesson, you will be able to:

- Understand how the ERP Model separates data

Lesson 1: Introducing SAP HANA modeling

Lesson Objectives

After completing this lesson, you will be able to:

- Understand Advantages and Features of SAP HANA modeling

Lesson 2: Advantages and issues of SAP BW/4HANA modeling

Lesson Objectives

After completing this lesson, you will be able to:

- Understand Advantages and issues of SAP BW/4HANA modeling

Lesson 3: Comparing SAP BW/4HANA focus, SAP HANA focus and mixed strategies

Lesson Objectives

After completing this lesson, you will be able to:

- Compare SAP BW/4HANA focus, SAP HANA focus and mixed strategies

Lesson 4: The Future of Data Warehousing

Lesson Objectives

After completing this lesson, you will be able to:

- Understand the Future of Data Warehousing

Lesson 1: Understanding Object Changeability

Lesson Objectives

After completing this lesson, you will be able to:

- Understand Object Changeability

Lesson 2: Separating Master Data and Transactional Data

Lesson Objectives

After completing this lesson, you will be able to:

- Separate Master Data and Transactional Data

Lesson 3: Tracking History

Lesson Objectives

After completing this lesson, you will be able to:

- Understand Tracking History

Lesson 4: Mapping and Transforming Data

Lesson Objectives

After completing this lesson, you will be able to:

- Map and Transform Data

Lesson 5: Designing a BW/4HANA Layered Scalable Architecture (LSA++)

Lesson Objectives

After completing this lesson, you will be able to:

- Design a Layered Scalable Architecture with Virtual Layers (LSA++)

Lesson 6: Understanding Physical and Logical Partitioning

Lesson Objectives

After completing this lesson, you will be able to:

- Understand Physical and Logical Partitioning

Lesson 1: Defining the Sequence of SAP BW Projects

Lesson Objectives

After completing this lesson, you will be able to:

- Define a sequence of SAP BW projects

Lesson 2: Planning the Phases of a SAP BW/4HANA Project

Lesson Objectives

After completing this lesson, you will be able to:

- List the five phases of a SAP BW project
- Understand the preparation phase
- Understand the business blueprint phase
- Understand the realization phase
- Understand the final preparation phase
- Understand the go live and support phase

Lesson 3: Developing a SAP BW/4HANA Data Model

Lesson Objectives

After completing this lesson, you will be able to:

- Structure the process of data model creation in the business blueprint phase
- Perform a requirement analysis
- Create an architecture overview
- Create a logical data model
- Develop an SAP BW/4HANA data model

Lesson 1: Working with SAP Business Content

Lesson Objectives

After completing this lesson, you will be able to:

- Work with SAP Business Content

Lesson 2: Introducing ABAP CDS Views provided by SAP BW/4HANA

Lesson Objectives

After completing this lesson, you will be able to:

- Introducing ABAP CDS Views provided by SAP BW/4HANA

Lesson 1: Implementing Field-Based Modeling with Open ODS Views

Lesson Objectives

After completing this lesson, you will be able to:

- Understand the Purpose of Field-Based Modeling with Open ODS Views
- Connect Data Sources
- Combine Facts, Master Data, and Texts in Open ODS Views
- Integrate Transactional Data with Open ODS Views

Lesson 2: Understanding Snapshot and Corporate Memory Models

Lesson Objectives

After completing this lesson, you will be able to:

- Understand Snapshot and Corporate Memory

Lesson 1: Modeling and Implementing SAP BW/4HANA Master Data

Lesson Objectives

After completing this lesson, you will be able to:

- List the tables in the SAP BW data model
- Implement SAP BW/4HANA Master Data
- Use hierarchies

Lesson 2: Modeling and Implementing Advanced DataStore Objects (ADSOs)

Lesson Objectives

After completing this lesson, you will be able to:

- Model and Implement Advanced DataStore Objects (ADSOs)

Lesson 3: Modeling and Implementing InfoSources and Transformations

Lesson Objectives

After completing this lesson, you will be able to:

- Model and Implement Transformations
- Model and Implement InfoSources
- Decide How To Derive Keyfigures
- Convert Currencies
- Convert Units of Measurement

Lesson 4: Modeling and Implementing CompositeProviders

Lesson Objectives

After completing this lesson, you will be able to:

- Model and Implement CompositeProviders

Lesson 1: Modeling Master Data in SAP HANA Views

Lesson Objectives

After completing this lesson, you will be able to:

- Create SAP HANA views with hierarchies

Lesson 2: Modeling Transactional Data in SAP HANA Views

Lesson Objectives

After completing this lesson, you will be able to:

- Create SAP HANA views with measures

Lesson 3: Loading Data from Calculation Views

Lesson Objectives

After completing this lesson, you will be able to:

- Load Data from Calculation Views

Lesson 1: Generating External SAP HANA Views for SAP BW/4HANA Objects

Lesson Objectives

After completing this lesson, you will be able to:

- Generate SAP HANA Views from an SAP BW/4HANAobjects

Lesson 2: Implementing Mixed Scenarios

Lesson Objectives

After completing this lesson, you will be able to:

- Explain the purpose of mixed scenarios
- Enhance an External SAP HANA View

Lesson 1: Implementing BW/4HANA Workspaces

Lesson Objectives

After completing this lesson, you will be able to:

- Get started with SAP BW Workspaces

Lesson 2: Implementing Local Composite Providers

Lesson Objectives

After completing this lesson, you will be able to:

- Implementing Local Composite Providers

Lesson 1: Introducing the HANA Analysis Process (HAP)

Lesson Objectives

After completing this lesson, you will be able to:

- Introducing the HANA Analysis Process (HAP)

Lesson 2: Defining Inventory Scenarios

Lesson Objectives

After completing this lesson, you will be able to:

- Create key figures for non-cumulatives
- Define Inventory Scenarios Using DataStore Objects (advanced)

Lesson 3: Stock Coverage

Lesson Objectives

After completing this lesson, you will be able to:

- Stock Coverage

Lesson 4: Planning Mode

Lesson Objectives

After completing this lesson, you will be able to:

- Planning Mode

Lesson 5: Additional SAP BW/4HANA Sources

Lesson Objectives

After completing this lesson, you will be able to:

- Provide additional sources of information regarding SAP BW/4HANA