BW363

SAP BW Powered by SAP HANA - Delta for BW Query Design

COURSE OUTLINE

Course Version: 15
Course Duration: 2 Day(s)
SAP Copyrights and Trademarks

© 2017 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.

<table>
<thead>
<tr>
<th>This information is displayed in the instructor’s presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration</td>
</tr>
<tr>
<td>Procedure</td>
</tr>
<tr>
<td>Warning or Caution</td>
</tr>
<tr>
<td>Hint</td>
</tr>
<tr>
<td>Related or Additional Information</td>
</tr>
<tr>
<td>Facilitated Discussion</td>
</tr>
<tr>
<td>User interface control</td>
</tr>
<tr>
<td>Window title</td>
</tr>
</tbody>
</table>

*Example text*
## Contents

### Course Overview

<table>
<thead>
<tr>
<th>Unit 1: Introduction to SAP HANA and to SAP BW Powered by SAP HANA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lesson: Getting Started with SAP HANA</td>
</tr>
<tr>
<td>1. Lesson: Describing the Concepts of Business Intelligence (BI) and DataWarehousing on Any Database</td>
</tr>
<tr>
<td>1. Lesson: Outlining the Basics of SAP BW Powered by SAP HANA</td>
</tr>
<tr>
<td>1. Lesson: Getting Started with SAP BW Modeling Tools in SAP HANA Studio</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit 2: Optimization Areas in SAP BW on SAP HANA</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Lesson: Describing Optimization Areas</td>
</tr>
<tr>
<td>3. Lesson: Understanding SAP HANA-Optimized Data Modeling: InfoCubes</td>
</tr>
<tr>
<td>3. Lesson: Explaining SAP HANA-Optimized Data Modeling: Advanced DataStore-Objects</td>
</tr>
<tr>
<td>3. Lesson: Explaining SAP HANA-Optimized Data Modeling: CompositeProviders</td>
</tr>
<tr>
<td>3. Lesson: Explaining SAP HANA-Optimized Data Modeling: Streamlining Core Layers</td>
</tr>
<tr>
<td>4. Lesson: Explaining SAP HANA-Optimized Data Staging</td>
</tr>
<tr>
<td>4. Lesson: Explaining SAP HANA-Optimized Data Modelling: Open ODS Views</td>
</tr>
<tr>
<td>4. Lesson: Introducing SAP BW Workspaces</td>
</tr>
<tr>
<td>4. Lesson: Explaining SAP HANA Native Modeling</td>
</tr>
<tr>
<td>4. Lesson: Hybrid Modeling in Mixed Scenarios</td>
</tr>
<tr>
<td>4. Lesson: Introducing SAP S/4HANA Embedded Analytics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit 3: Report Launching and Navigation in Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Lesson: Outlining SAP BusinessObjects BI Platform</td>
</tr>
<tr>
<td>5. Lesson: Navigating in SAP BusinessObjects Analysis, Edition for Microsoft Office</td>
</tr>
<tr>
<td>5. Lesson: Navigating in SAP BusinessObjects Design Studio Generic Application</td>
</tr>
</tbody>
</table>
### Unit 4: SAP BW Query Designer in SAP HANA Studio

<table>
<thead>
<tr>
<th>Lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting Started</td>
</tr>
<tr>
<td>Configuring Properties of Key Figures</td>
</tr>
<tr>
<td>Creating Restricted Key Figures</td>
</tr>
<tr>
<td>Creating Calculated Key Figures</td>
</tr>
<tr>
<td>Creating Calculated Key Figures with Boolean Operators</td>
</tr>
<tr>
<td>Creating Calculated Key Figures with Exception Aggregation</td>
</tr>
<tr>
<td>Creating Structures</td>
</tr>
<tr>
<td>Resolving Formula Collision and Working with Cells</td>
</tr>
<tr>
<td>Configuring the Properties of Characteristics</td>
</tr>
<tr>
<td>Creating a Query and Running Display and Navigation Attributes</td>
</tr>
<tr>
<td>Adding Hierarchies to Reports</td>
</tr>
<tr>
<td>Explaining Variables</td>
</tr>
<tr>
<td>Creating Characteristic Value and Text Variables</td>
</tr>
<tr>
<td>Applying Business Content Variables</td>
</tr>
<tr>
<td>Creating Characteristic Value Variables with a Replacement Path from a Query</td>
</tr>
<tr>
<td>Creating Formula Variables</td>
</tr>
<tr>
<td>Creating Hierarchy Variables and Hierarchy Node Variables</td>
</tr>
<tr>
<td>Creating a Query and Including Exceptions</td>
</tr>
<tr>
<td>Creating a Query and Including Conditions</td>
</tr>
<tr>
<td>Optimizing Query Performance</td>
</tr>
<tr>
<td>Applying Performance Monitoring Tools</td>
</tr>
<tr>
<td>Configuring Query Read Mode</td>
</tr>
<tr>
<td>Describing the HANA-Optimized Analytic Manager</td>
</tr>
</tbody>
</table>

### Unit 5: Strategy and Portfolio: SAP BusinessObjects Analytics

<table>
<thead>
<tr>
<th>Lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describing Strategy and Portfolio: SAP BusinessObjects Analytics</td>
</tr>
</tbody>
</table>
TARGET AUDIENCE
This course is intended for the following audiences:

- Application Consultant
- Business Analyst
- Business Process Owner/Team Lead/Power User
- Data Consultant/Manager
- Program/Project Manager
- User
Lesson 1: Getting Started with SAP HANA

Lesson Objectives
After completing this lesson, you will be able to:

- Explain the SAP HANA Basics

Lesson 2: Describing the Concepts of Business Intelligence (BI) and DataWarehousing on Any Database

Lesson Objectives
After completing this lesson, you will be able to:

- Describe BI and data warehousing on any database

Lesson 3: Outlining the Basics of SAP BW Powered by SAP HANA

Lesson Objectives
After completing this lesson, you will be able to:

- Give an overview of SAP BW and the value added by SAP HANA

Lesson 4: Getting Started with SAP BW Modeling Tools in SAP HANA Studio

Lesson Objectives
After completing this lesson, you will be able to:

- Introduce the new Eclipse-based UI for BW modeling
Lesson 1: Describing Optimization Areas

Lesson Objectives
After completing this lesson, you will be able to:

- Describe the areas where SAP BW has been optimized based on SAP HANA code push down

Lesson 2: Understanding SAP HANA-Optimized Data Modeling: InfoCubes

Lesson Objectives
After completing this lesson, you will be able to:

- Explain the impact of SAP HANA to BW InfoCubes

Lesson 3: Explaining SAP HANA-Optimized Data Modeling: Advanced DataStore-Objects

Lesson Objectives
After completing this lesson, you will be able to:

- Explain the impact of SAP HANA on DataStore-Objects

Lesson 4: Explaining SAP HANA-Optimized Data Modeling: CompositeProviders

Lesson Objectives
After completing this lesson, you will be able to:

- Explain the purpose of the new CompositeProvider
- See the advantages compared to the existing virtual InfoProviders

Lesson 5: Explaining SAP HANA-Optimized Data Modeling: Streamlining Core Layers

Lesson Objectives
After completing this lesson, you will be able to:
- Describe how to optimize the design of the LSA core layers and start moving your architecture to LSA++

Lesson 6: Explaining SAP HANA-Optimized Data Staging

Lesson Objectives
After completing this lesson, you will be able to:

- Describe how process chains are streamlined

Lesson 7: Explaining SAP HANA-Optimized Data Modelling: Open ODS Views

Lesson Objectives
After completing this lesson, you will be able to:

- Position open ODS views
- Cross the border - Open ODS function modeling on remote data (HANA Smart Data Access.)

Lesson 8: Introducing SAP BW Workspaces

Lesson Objectives
After completing this lesson, you will be able to:

- Get started with SAP BW Workspaces

Lesson 9: Explaining SAP HANA Native Modeling

Lesson Objectives
After completing this lesson, you will be able to:

- Describe the different model types in SAP HANA
- Understand different model types in SAP HANA outside of SAP BW

Lesson 10: Hybrid Modeling in Mixed Scenarios

Lesson Objectives
After completing this lesson, you will be able to:

- Explain the purpose of mixed scenarios

Lesson 11: Introducing SAP S/4HANA Embedded Analytics

Lesson Objectives
After completing this lesson, you will be able to:

- Describe SAP S/4HANA embedded analytics
Lesson 1: Outlining SAP BusinessObjects BI Platform

Lesson Objectives
After completing this lesson, you will be able to:

- Outline SAP BusinessObjects BI Platform

Lesson 2: Navigating in SAP BusinessObjects Analysis, Edition for Microsoft Office

Lesson Objectives
After completing this lesson, you will be able to:

- Navigate in SAP BusinessObjects Analysis, edition for Microsoft Office

Lesson 3: Navigating in SAP BusinessObjects Design Studio Generic Application

Lesson Objectives
After completing this lesson, you will be able to:

- Navigate in SAP BusinessObjects Design Studio Generic Application
Lesson 1: Getting Started

Lesson Objectives
After completing this lesson, you will be able to:

• Gain an overview of the BW Query Designer in SAP HANA Studio

Lesson 2: Configuring Properties of Key Figures

Lesson Objectives
After completing this lesson, you will be able to:

• Configure key figure properties

Lesson 3: Creating Restricted Key Figures

Lesson Objectives
After completing this lesson, you will be able to:

• Create a query with restricted key figures

Lesson 4: Creating Calculated Key Figures

Lesson Objectives
After completing this lesson, you will be able to:

• Create a query with calculated key figures

Lesson 5: Creating Calculated Key Figures with Boolean Operators

Lesson Objectives
After completing this lesson, you will be able to:

• Create a query with Boolean operators

Lesson 6: Creating Calculated Key Figures with Exception Aggregation
Lesson Objectives
After completing this lesson, you will be able to:

- Create a query with exception aggregation

Lesson 7: Creating Structures
Lesson Objectives
After completing this lesson, you will be able to:

- Create a query with two structures

Lesson 8: Resolving Formula Collision and Working with Cells
Lesson Objectives
After completing this lesson, you will be able to:

- Resolve formula collision and work with cells

Lesson 9: Configuring the Properties of Characteristics
Lesson Objectives
After completing this lesson, you will be able to:

- Create a query and configure the properties of characteristics

Lesson 10: Creating a Query and Running Display and Navigation Attributes
Lesson Objectives
After completing this lesson, you will be able to:

- Create a query and run display and navigation attributes

Lesson 11: Adding Hierarchies to Reports
Lesson Objectives
After completing this lesson, you will be able to:

- Create a query and include an external hierarchy

Lesson 12: Explaining Variables
Lesson Objectives
After completing this lesson, you will be able to:

- Explain variables
Lesson 13: Creating Characteristic Value and Text Variables
Lesson Objectives
After completing this lesson, you will be able to:
- Create a query with characteristic value variables and text variables

Lesson 14: Applying Business Content Variables
Lesson Objectives
After completing this lesson, you will be able to:
- Create a query with business content variables and variable offset

Lesson 15: Creating Characteristic Value Variables with a Replacement Path from a Query
Lesson Objectives
After completing this lesson, you will be able to:
- Create characteristic value variables with a replacement path from a query

Lesson 16: Creating Formula Variables
Lesson Objectives
After completing this lesson, you will be able to:
- Create a query with a formula variable

Lesson 17: Creating Hierarchy Variables and Hierarchy Node Variables
Lesson Objectives
After completing this lesson, you will be able to:
- Create a query with hierarchy variables and hierarchy node variables

Lesson 18: Creating a Query and Including Exceptions
Lesson Objectives
After completing this lesson, you will be able to:
- Create a query and include exceptions

Lesson 19: Creating a Query and Including Conditions
Lesson Objectives
After completing this lesson, you will be able to:
Lesson 20: Optimizing Query Performance

Lesson Objectives
After completing this lesson, you will be able to:

• Describe query performance optimization

Lesson 21: Applying Performance Monitoring Tools

Lesson Objectives
After completing this lesson, you will be able to:

• Explain how to apply performance monitoring tools

Lesson 22: Configuring Query Read Mode

Lesson Objectives
After completing this lesson, you will be able to:

• Describe how to configure query read mode

Lesson 23: Describing the HANA-Optimized Analytic Manager

Lesson Objectives
After completing this lesson, you will be able to:

• Describe the new SAP BW Analytic Manager and different Query Processing Modes
Lesson 1: Describing Strategy and Portfolio: SAP BusinessObjects Analytics

Lesson Objectives
After completing this lesson, you will be able to:

- Describe SAP BusinessObjects Analytics