

Data Modeling in ABAP Dictionary and ABAP Core Data Services

**COURSE OUTLINE** 

Course Version: 24 Course Duration:

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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	1 2 3
Warning or Caution	
Hint	
Related or Additional Information	>
Facilitated Discussion	<b></b>
User interface control	Example text
Window title	Example text

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# **Course Overview**

#### TARGET AUDIENCE

This course is intended for the following audiences:

- Development Consultant
- Developer





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# UNIT 1 Exploring Data Modeling in ABAP

# Lesson 1: Exploring ABAP Dictionary

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the basic tasks of the ABAP Dictionary
- Name the most important Dictionary objects

# Lesson 2: Exploring ABAP Core Data Services

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the basic tasks of the ABAP Core Data Services
- Name the most important ABAP CDS objects



# UNIT 2 Creating Database Tables

# **Lesson 1: Defining Domains and Data Elements**

#### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the use of data elements and domains when defining database tables
- Create domains
- Create data elements

### Lesson 2: Creating Database Tables

#### Lesson Objectives

After completing this lesson, you will be able to:

- Create a table definition
- Edit the field list of a database table
- Maintain additional table properties
- Define and use include structures

### Lesson 3: Handling Changes to Database Tables

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the adjustment of database tables
- Adjust direct changes to database tables
- Describe the conversion process for database tables
- · Adjust indirect changes to database tables



# UNIT 3 Defining Global Data Types

# Lesson 1: Using Dictionary Objects as Data Types

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Describe the use of dictionary objects as data types

### **Lesson 2: Defining Dictionary Structures**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Define dictionary structures

### Lesson 3: Defining Dictionary Table Types

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Define a dictionary table type
- Define a nested table type



# UNIT 4 Defining Basic CDS Views

# Lesson 1: Defining a Basic CDS View

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Create a data definition
- Maintain the FROM clause and element list

### Lesson 2: Using ABAP Annotations in CDS Views

#### **Lesson Objectives**

After completing this lesson, you will be able to:

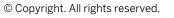
- Use ABAP annotations in CDS views
- Work with translatable texts in CDS

# **Lesson 3: Building Views on Views**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Define a CDS view that reads from another view
- Control the propagation of element annotations





# UNIT 5 Defining Relationships and Associations

# Lesson 1: Defining Relationships Between Database Tables

#### Lesson Objectives

After completing this lesson, you will be able to:

- Understand relationships in data models
- Define foreign key dependencies in dictionary tables

# Lesson 2: Defining Associations Between CDS Views

#### **Lesson Objectives**

After completing this lesson, you will be able to:

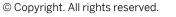
- Define associations
- Expose associations

# Lesson 3: Using Associations in Path Expressions

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Use path expressions in CDS views
- Use filter conditions in path expressions
- Use path expressions in ABAP SQL





# UNIT 6 Using Code Pushdown in CDS Views

# Lesson 1: Implementing SQL Expressions in CDS Views

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Motivate the use of code pushdown in CDS Views
- Use SQL expressions in CDS views

# Lesson 2: Calling Built-in Functions in CDS Views

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Use built-in functions in ABAP CDS
- Use session variables

# Lesson 3: Defining CDS Views with Input Parameters

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Define CDS views with input parameters
- Provide values for CDS view parameters
- Link parameters to ABAP system fields

# Lesson 4: Processing Data Sets in CDS Views

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the techniques for processing datasets in ABAP CDS
- Use the DISTINCT addition in ABAP CDS views
- Include aggregations and grouping in CDS views
- Use joins and unions in CDS views



# UNIT 7 Defining Meta Objects for Dictionary Objects and CDS Views

# **Lesson 1: Preventing Unauthorized Access to Data**

#### **Lesson Objectives**

After completing this lesson, you will be able to:

- Create authorization fields and authorization objects
- Implement CDS access controls

# Lesson 2: Extending Dictionary Objects

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Extend dictionary objects using append structures

# Lesson 3: Extending CDS Views

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Extend CDS entities using CDS view extensions

# Lesson 4: Creating Metadata Extensions

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Extend views using CDS metadata extensions

