BOID10
SAP BusinessObjects Information Design Tool

COURSE OUTLINE

Course Version: 15
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.

<table>
<thead>
<tr>
<th>This information is displayed in the instructor’s presentation</th>
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<tbody>
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<td>Demonstration</td>
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Example text

Example text
# Course Overview

## Unit 1: Basic SAP BusinessObjects Universe Design
- Lesson: Describing Universes
- Lesson: Defining the Components of a Universe

## Unit 2: Data Connections
- Lesson: Defining Connections

## Unit 3: Data Foundations
- Lesson: Creating Data Foundations
- Lesson: Using Joins

## Unit 4: Business Layers
- Lesson: Accessing Data through the Business Layer
- Lesson: Integrating the Business Layer Components
- Lesson: Validating Objects
- Lesson: Creating Measure Objects
- Lesson: Creating Shortcut Joins

## Unit 5: Loops in a Data Foundation
- Lesson: Resolving Loops with Joined Tables
- Lesson: Resolving Loops Using Aliases
- Lesson: Resolving Loops Using Contexts
- Lesson: Detecting Contexts
- Lesson: Editing Contexts
- Lesson: Testing Contexts
- Lesson: Resolving Recursive Loops

## Unit 6: Data Restrictions
- Lesson: Defining Data Restrictions
- Lesson: Applying Mandatory Data Restrictions
- Lesson: Applying Optional Data Restrictions

## Unit 7: Lists of Values (LOV)
- Lesson: Providing a List of Values

## Unit 8: Parameters
- Lesson: Illustrating Runtime Parameters
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<th>Unit</th>
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<td>Lesson: Applying the Aggregate Awareness Optimization Method</td>
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TARGET AUDIENCE
This course is intended for the following audiences:

- Application Consultant
- Data Consultant
- Developer
- Project Manager
- System Administrator
Lesson 1: Describing Universes
Lesson Objectives
After completing this lesson, you will be able to:
• Discuss universes

Lesson 2: Defining the Components of a Universe
Lesson Objectives
After completing this lesson, you will be able to:
• Identify local projects
Lesson 1: Defining Connections

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

• Define data connections
Lesson 1: Creating Data Foundations

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

• Create data foundations

Lesson 2: Using Joins

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

• Use joins
• Create an equi-join
• Create an outer join
• Create a theta join
• Create column filters to restrict data
Lesson 1: Accessing Data through the Business Layer

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

- Access business layer data
- Create a business layer
- Populate the business layer

Lesson 2: Integrating the Business Layer Components

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

- Add business layer folders
- Create business layer dimension objects
- Create time dimension objects
- Create attribute objects

Lesson 3: Validating Objects

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

- Verify business object accuracy and integrity

Lesson 4: Creating Measure Objects

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

- Create a measure object
- Create a delegated measure object

Lesson 5: Creating Shortcut Joins
Lesson Objectives
After completing this lesson, you will be able to:

- Create shortcut joins
Lesson 1: Resolving Loops with Joined Tables
Lesson Objectives
After completing this lesson, you will be able to:
- Identify loops

Lesson 2: Resolving Loops Using Aliases
Lesson Objectives
After completing this lesson, you will be able to:
- Resolve loops using aliases

Lesson 3: Resolving Loops Using Contexts
Lesson Objectives
After completing this lesson, you will be able to:
- Resolve loops using contexts

Lesson 4: Detecting Contexts
Lesson Objectives
After completing this lesson, you will be able to:
- Detect contexts

Lesson 5: Editing Contexts
Lesson Objectives
After completing this lesson, you will be able to:
- Edit contexts

Lesson 6: Testing Contexts
Lesson Objectives
After completing this lesson, you will be able to:

- Test contexts

**Lesson 7: Resolving Recursive Loops**

**Lesson Objectives**

After completing this lesson, you will be able to:

- Resolve recursive loops
Lesson 1: Defining Data Restrictions

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

- Define data restrictions

Lesson 2: Applying Mandatory Data Restrictions

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

- Apply restrictions to objects
- Apply restrictions using an alternative method
- Restrict by inferring matching data between tables

Lesson 3: Applying Optional Data Restrictions

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

- Restrict data using a filter object
Lesson 1: Providing a List of Values

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

- Define a list of values
- Use the list of values editor
- Create static lists of values
- Create lists of values based on business layer objects
- Associate a list of values with a business object
Lesson 1: Illustrating Runtime Parameters

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

- Use parameters to restrict data
Lesson 1: Using Object @functions in Queries

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

- Identify object @functions

Lesson 2: Applying the Aggregate Awareness Optimization Method

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

- Set up aggregate awareness

Lesson 3: Using Other Functions

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

- Use the select function
- Use the where function
- Use the variable function
- Use the execute function
Lesson 1: Creating Relative-Time Objects

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

- Create relative-time objects
Lesson 1: Defining Drill Down Navigation Paths

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

- Define a navigation path
Lesson 1: Creating Derived Tables

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

• Use derived tables
Lesson 1: Defining Numeric Keys

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

• Apply key awareness
Lesson 1: Managing a Universe using the Data Foundation View

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

- Manage a universe using the data foundation view

Lesson 2: Managing a Universe using the Business Layer View

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

- Manage a universe using the business layer view
Lesson 1: Optimizing Universes Using Parameters

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

- Use connection configuration parameters
- Use query script parameters
- Explain best practices for universe design
Lesson 1: Deploying a Universe

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

- Document universes
- Deploy a universe

Lesson 2: Securing a Published Universe

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

- Secure a published universe

Lesson 3: Creating Data Security Profiles

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

- Define data security profiles

Lesson 4: Creating Business Security Profiles

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

- Define business security profiles

Lesson 5: Assigning Security Profiles to Users

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

- Assign security profiles to users

Lesson 6: Identifying the Priority of Security Settings
Lesson Objectives
After completing this lesson, you will be able to:

- Describe security setting priorities

Lesson 7: Updating a Published Universe
Lesson Objectives
After completing this lesson, you will be able to:

- Update a published universe
Lesson 1: Determining How the Order of SQL Clauses Affects Data Returned
Lesson Objectives
After completing this lesson, you will be able to:
• Analyze SQL traps

Lesson 2: Detecting Chasm Traps
Lesson Objectives
After completing this lesson, you will be able to:
• Identify chasm traps

Lesson 3: Resolving Chasm Traps
Lesson Objectives
After completing this lesson, you will be able to:
• Resolve chasm traps

Lesson 4: Identifying Fan Traps
Lesson Objectives
After completing this lesson, you will be able to:
• Identify fan traps

Lesson 5: Resolving Fan Traps
Lesson Objectives
After completing this lesson, you will be able to:
• Resolve fan traps
Lesson 1: Resolving an Ambiguous Outer Join Using @AggregateAware

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

- Resolve an ambiguous outer join
Lesson 1: Identifying the Different Data Sources

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

● Identify data sources for universes

Lesson 2: Creating an OLAP Universe

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

● Create an OLAP universe

Lesson 3: Creating a Multi-Source Universe

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

● Create a multisource universe
● Use calculated columns
● Use federated tables
Lesson 1: Using Shared Projects
Lesson Objectives
After completing this lesson, you will be able to:

• Explain the role of shared projects

Lesson 2: Manipulating Other Designers' Resources
Lesson Objectives
After completing this lesson, you will be able to:

• Describe the purpose of project synchronization
• Update shared projects
Lesson 1: Converting Existing .unv Universes

Lesson Objectives

After completing this lesson, you will be able to:

• Convert published .unv universes
Lesson 1: Deploying Universes in Different Languages

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

• Deploy a translated universe