

S4D437

Transactional Apps with the ABAP RESTful Programming Model

COURSE OUTLINE

Course Version: 22

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	
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:

- Development Consultant
- Developer

Lesson 1: Understanding the Concept and Architecture of RAP

Lesson Objectives

After completing this lesson, you will be able to:

- Understand the concept of RAP
- Use ABAP development tools
- Explain the RAP architecture and business use case

Lesson 2: Defining an OData UI Service

Lesson Objectives

After completing this lesson, you will be able to:

- Define a CDS projection view
- Enrich a projection view with UI metadata
- Create and preview an OData UI service

Lesson 1: Defining RAP Business Objects and their Behavior

Lesson Objectives

After completing this lesson, you will be able to:

- Create a CDS behavior definition
- Create a CDS behavior projection

Lesson 2: Using Entity Manipulation Language (EML) to Access RAP Business Objects

Lesson Objectives

After completing this lesson, you will be able to:

- Describe the purpose and syntax of EML
- Describe the derived data types for RAP Business Objects
- Use the Entity Manipulation Language (EML)

Lesson 3: Understanding Concurrency Control in RAP

Lesson Objectives

After completing this lesson, you will be able to:

- Describe pessimistic concurrency control (locking)
- Enable optimistic concurrency control

Lesson 4: Defining Actions and Messages

Lesson Objectives

After completing this lesson, you will be able to:

- Define and implement an action
- Expose actions to OData services
- Provide a button in SAP Fiori elements
- Define exception classes for RAP

- Access application data in behavior implementations

Lesson 5: Implementing Authority Checks

Lesson Objectives

After completing this lesson, you will be able to:

- Restrict read access with access controls
- Implement explicit authority checks

Lesson 1: Enabling Input Fields and Value Help

Lesson Objectives

After completing this lesson, you will be able to:

- Enable input fields
- Set input fields to read-only and mandatory
- Define value help for input fields

Lesson 2: Implementing Input Checks with Validations

Lesson Objectives

After completing this lesson, you will be able to:

- Explain validations
- Define and implement input checks
- Link messages to input fields

Lesson 3: Providing Values with Determinations

Lesson Objectives

After completing this lesson, you will be able to:

- Describe the numbering concepts in RAP
- Define and implement determinations

Lesson 4: Implementing Dynamic Feature Control

Lesson Objectives

After completing this lesson, you will be able to:

- Explain dynamic action, operation, and field control in RAP
- Implement dynamic feature control

Lesson 1: Understanding the Draft Concept

Lesson Objectives

After completing this lesson, you will be able to:

- Explain the need for draft in stateless applications
- Enable draft handling in the Business Object

Lesson 2: Developing Draft-Enabled Applications

Lesson Objectives

After completing this lesson, you will be able to:

- Enable draft handling in a SAP Fiori elements app
- Explain the difference between transition messages and state messages
- Describe the draft-specifics in behavior implementations

Lesson 1: Defining Composite RAP Business Objects

Lesson Objectives

After completing this lesson, you will be able to:

- Define compositions in RAP BOs

Lesson 2: Defining Compositions in OData UI Services

Lesson Objectives

After completing this lesson, you will be able to:

- Expose compositions to OData services
- Enable navigation in SAP Fiori elements apps

Lesson 3: Implementing the Behavior for Composite RAP BOs

Lesson Objectives

After completing this lesson, you will be able to:

- Access composite business objects with EML

Lesson 1: Understanding Data Access in Unmanaged Implementations

Lesson Objectives

After completing this lesson, you will be able to:

- Define the behavior for an unmanaged Business Object

Lesson 2: Implementing Unmanaged Business Objects

Lesson Objectives

After completing this lesson, you will be able to:

- Implement data access of an unmanaged Business Object