

GW100

SAP Gateway - Building OData Services

COURSE OUTLINE

Course Version: 20

Course Duration:

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Preparing for Your SAP Live Class

Required Equipment for Your SAP Live Class

- PC or Mac
- Integrated or external web cam
- Headset with integrated mic
- Stable internet connection

You can test if your setup is working correctly by using this link: <https://sap.zoom.us/test>

We recommend that you connect two monitors to your PC so that you can manage the course content more efficiently. This will reduce the need for you to switch (alt+tab) between the applications we use in class.

Getting the Most Out of Your SAP Live Class

- Make sure you have setup and thoroughly tested the SAP Live Class environment and resolved any issues well before the class begins. Refer to the separate instructions that you were sent for setup instructions and support contact information.
- Keep your web cam activated during the training sessions. You can switch it off during breaks if you prefer.
- Use a headset with an integrated mic to ensure a high-quality audio experience for both you and the other participants. Laptop speakers and mic produce poor quality sound and introduce background noise that can disturb the class.
- Make sure you are in a quiet area where you will not be disturbed.
- Be ready to use the mute feature to ensure any background noise does not disturb the class.
- Turn off email, phones, instant messaging tools, and clear other distractions away from your training area.
- Actively participate and prepare to be called on by name.
- Be patient waiting for a response to your chat messages.
- Always ask the instructor for assistance if you need help with an exercise. Don't get left behind.
- Be ready to begin class on time so you do not delay the start of each session.
- During breaks, make sure you take the opportunity to get out of your chair and stretch.
- Please raise any concerns relating to the SAP Live Class experience with your instructor at the time they arise so that they can be quickly addressed.

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:

- Developer
- Solution Architect
- System Architect

Lesson 1: Explaining SAP Gateway

Lesson Objectives

After completing this lesson, you will be able to:

- Describe the benefits of SAP Gateway and OData
- List SAP products that use SAP Gateway

Lesson 2: Describing SAP Gateway Deployment Options

Lesson Objectives

After completing this lesson, you will be able to:

- Describe SAP Gateway components
- Describe SAP Gateway deployment scenarios

Lesson 1: Explaining Representational State Transfer (REST)

Lesson Objectives

After completing this lesson, you will be able to:

- Describe Representational State Transfer (REST)

Lesson 2: Explaining Open Data Protocol (OData)

Lesson Objectives

After completing this lesson, you will be able to:

- Examine an OData service

Lesson 3: Performing OData Operations

Lesson Objectives

After completing this lesson, you will be able to:

- Perform OData read operations

Lesson 4: Performing OData Queries

Lesson Objectives

After completing this lesson, you will be able to:

- Perform OData queries
- Describe patterns for UI-centric applications

Lesson 5: Consuming OData Services

Lesson Objectives

After completing this lesson, you will be able to:

- Consume OData using SAP Web IDE

Lesson 1: Implementing a Gateway Service

Lesson Objectives

After completing this lesson, you will be able to:

- Explain the role of the SAP Gateway Service Builder
- Define a data model
- Implement a Gateway service
- Register and test a Gateway service
- Perform basic error handling

Lesson 2: Defining a Data Model

Lesson Objectives

After completing this lesson, you will be able to:

- Plan Gateway service development
- Define a data model based on ABAP Dictionary

Lesson 3: Implementing Read Operations

Lesson Objectives

After completing this lesson, you will be able to:

- Implement a query operation
- Implement a read operation

Lesson 4: Implementing Navigation

Lesson Objectives

After completing this lesson, you will be able to:

- Implement association and navigation

Lesson 5: Implementing Query Options

Lesson Objectives

After completing this lesson, you will be able to:

- Implement query options

Lesson 6: Implementing Change Operations

Lesson Objectives

After completing this lesson, you will be able to:

- Implement create, update, delete operations

Lesson 1: Operating the RFC/BOR Generator

Lesson Objectives

After completing this lesson, you will be able to:

- Define a data model based on an RFC/BOR interface
- Generate implementation for RFC/BOR operations

Lesson 2: Operating the Search Help Generator

Lesson Objectives

After completing this lesson, you will be able to:

- Implement the search help generator

Lesson 1: Redefining a Data Service

Lesson Objectives

After completing this lesson, you will be able to:

- Redefine a data service

Lesson 2: Redefining a Gateway Service

Lesson Objectives

After completing this lesson, you will be able to:

- Redefine Gateway services

Lesson 1: Explaining the SAP Fiori Programming Model

Lesson Objectives

After completing this lesson, you will be able to:

- Explain the SAP Fiori programming model

Lesson 2: Mapping CDS Views as Data Source

Lesson Objectives

After completing this lesson, you will be able to:

- Operate the CDS/SADL generator

Lesson 3: Referencing a Data Source

Lesson Objectives

After completing this lesson, you will be able to:

- Reference a data source

Lesson 4: Publishing a Gateway Service via CDS View Annotation

Lesson Objectives

After completing this lesson, you will be able to:

- Publish Gateway services via CDS view annotation

Lesson 1: Assigning Multiple Back-End Systems Support

Lesson Objectives

After completing this lesson, you will be able to:

- Assign multiple system aliases

Lesson 2: Configuring Routing Capabilities

Lesson Objectives

After completing this lesson, you will be able to:

- Configure routing

Lesson 3: Performing Multiple Origin Composition

Lesson Objectives

After completing this lesson, you will be able to:

- Perform multiple origin composition

Lesson 1: Implementing Function Imports

Lesson Objectives

After completing this lesson, you will be able to:

- Implement function imports

Lesson 2: Implementing Expand Operations

Lesson Objectives

After completing this lesson, you will be able to:

- Implement expand operations

Lesson 3: Implementing Deep Insert Operations

Lesson Objectives

After completing this lesson, you will be able to:

- Implement deep insert operations

Lesson 4: Handling ETags

Lesson Objectives

After completing this lesson, you will be able to:

- Handle ETags

Lesson 5: Processing Batch Requests

Lesson Objectives

After completing this lesson, you will be able to:

- Process batch requests

Lesson 6: Implementing Media Support

Lesson Objectives

After completing this lesson, you will be able to:

- Implement media support

Lesson 7: Explaining Offline Support

Lesson Objectives

After completing this lesson, you will be able to:

- Explain offline support

Lesson 8: Describing Server Side Caching

Lesson Objectives

After completing this lesson, you will be able to:

- Describe soft state
- Describe the soft state based query result cache

Lesson 1: Enabling Authentication

Lesson Objectives

After completing this lesson, you will be able to:

- Outline authentication options
- Outline authorization elements

Lesson 2: Managing Data Security

Lesson Objectives

After completing this lesson, you will be able to:

- Outline how to secure data

Lesson 3: Understanding Read Access Logging (RAL)

Lesson Objectives

After completing this lesson, you will be able to:

- Understand Read Access Logging (RAL)

Lesson 1: Explaining OData V4

Lesson Objectives

After completing this lesson, you will be able to:

- Compare OData V2 to V4

Lesson 2: Creating OData V4 Services

Lesson Objectives

After completing this lesson, you will be able to:

- Create OData V4 services

Lesson 3: Implementing OData V4 Services

Lesson Objectives

After completing this lesson, you will be able to:

- Implement OData V4 services

Lesson 1: Getting Further Information

Lesson Objectives

After completing this lesson, you will be able to:

- Get further information