

## SAP Building Transactional Apps with the ABAP RESTful Application Programming Model

**Duration: 5 Days    Course Code: S4D437    Delivery Method: Company Event**

### Overview:

This course is a deep dive into the ABAP RESTful Application Programming Model. The primary focus lies on the transactional behavior of business objects and their consumption in OData UI services. You will learn to define business objects which consist of just one data node, as well as business objects consisting of a hierarchy of nodes. When implementing the transactional behavior, you will first use the generic data access layer (managed approach). Later you will also integrate existing legacy code (unmanaged or partially managed approach). You will draft-enable your business object and produce and consume business events. Finally, you will enable the extensibility of your business object and learn how to extend existing business objects. The course is held on SAP BTP, ABAP environment. However, most of the content is equally suitable for SAP S/4HANA cloud editions and SAP S/4HANA 2020 or later. Some features shown in the course may not be available in older SAP S/4HANA releases.

### Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

### Target Audience:

- Developer
- Development Consultant

### Objectives:

- This course will prepare you to:
- Exploring the ABAP RESTful Application Programming Model
- Working with ABAP RESTful Application Programming Model business objects
- Adding Basic Operations Update and Create
- Developing Draft-enabled Services
- Defining Compositions
- Implementing Unmanaged Data Access
- Integrating Business Events
- Enabling and Using Extensibility

### Prerequisites:

#### Essential

- Experience in object-oriented ABAP Programming
- Experience in modern, expression-based ABAP syntax
- Basic knowledge of data modelling in ABP dictionary and ABAP Core Data Services \* The recommended way to acquire the necessary knowledge is through courses S4D400, S4D401, and S4D430 or the Acquiring Core ABAP Skills learning journey.

## Content:

### Exploring the ABAP RESTful Application Programming Model

- Exploring the Concept and Architecture
- Defining a CDS-based Data Model
- Defining an OData UI Service

### Working with ABAP RESTful Application Programming Model Business Objects

- Defining RAP BOs and their Behavior
- Using the Entity Manipulation Language (EML) to Access RAP BOs
- Understanding Concurrency Control
- Defining Actions and Messages
- Implementing Authority Checks

### Adding Basic Operations Update and Create

- Defining Static Field Control and Value Helps
- Implementing Input Checks using Validations
- Setting Values using Numbering and Determinations
- Implementing Dynamic Feature Control

### Developing Draft-enabled Services

- Understanding the Draft Concept
- Implementing the Behavior of Draft-Enabled BOs

### Defining Compositions

- Defining Composite RAP Business Objects
- Defining Compositions in OData UI Services
- Implementing the Behavior of Composite Business Objects

### Implementing Unmanaged Data Access

- Exploring the Behavior Implementation Options
- Implementing Unmanaged Business Objects
- Implementing Data Access in Managed Business Objects

### Integrating Business Events

- Raising and Handling Business Events
- Working with Event Parameters

### Enabling and Using Extensibility

- Exploring Extensibility Options
- Enabling Data Model Extensibility
- Developing Data Model Extensions
- Enabling and Developing Behavior Extensions

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## Additional Information:

**Course based on software release** SAP BTP, ABAP Environment Most of the content is equally suitable for SAP S/4HANA cloud editions and SAP S/4HANA 2020 or later (some features shown in the course might not be available in older SAP S/4HANA releases)

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## Further Information:

For More information, or to book your course, please call us on 0800/84.009

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