

Getting Started with SAP Cloud Application Programming Model

Course Description:

The course introduces developers to the **SAP Cloud Application Programming Model (CAP)**, focusing on building cloud-native applications using the **Node.js runtime**. Through hands-on units and practical examples, learners will explore CAP's core features—from domain modeling and service definitions to implementing access control, localization, and concurrency handling.

Audience Profile:

This course is designed for developers who want to build applications using the SAP Cloud Application Programming Model. It is suitable for those looking to gain expertise in defining domain models, developing cloud-native services, and working with SAP's business technology platform.

Prerequisites:

Participants should have a basic understanding of the following:

- JavaScript, Node.js, and npm
- Git
- OData Protocol

Course Objectives:

By the end of this course, participants will be able to:

- Describe the fundamental concepts of the SAP Cloud Application Programming Model.
- Capture complex domain models using Core Data Services (CDS).
- Utilize domain models as a foundation for persistence and service definitions.
- Define and implement services leveraging CAP runtime capabilities and custom business logic.
- Apply advanced techniques such as access control, internationalization, and concurrency control.
- Validate user input, prevent data loss, and use event handlers to extend application logic.
- Implement security, debugging, and performance optimization strategies.
- Localize error messages and control access to data using annotations.

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Unit 3: Using Advanced Domain Modeling Features

- Using Associations and Compositions
- Incorporating Common Reuse Aspects
- Working with Localized Data, Code Lists, and Common Reuse Types

Unit 4: Providing More Sophisticated Services

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- Preventing Lost Updates
- Exposing Denormalized Views
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- Implementing Programmatic Validations with Event Handlers
- Debugging a CAP Project in SAP Business Application Studio
- Enriching Outbound Data with Event Handlers
- Creating and Running Database Queries

Unit 5: Exploring More Recipes for Common Tasks

- Localizing Error Messages
- Controlling Access to Data

