



SAP - Restful Application Programming Model

Course Content

Understanding BTP Cloud – ABAP Environment and RAP On Premise

- Setting up BTP Account
- Understanding and setting up ABAP Environment
- Setting up ADT for RAP On Premise
- Understanding differences and similarities with Cloud and On-Premise Development strategy
- Setting up BAS for Fiori Element based Development

ABAP Restful Application Programming Model Introduction

- What is RAP?
- Who all can Learn RAP
- Design Pattern of RAP
- Framework of RAP
- Tools for Development

Learning the basics

- Understanding VDM Concept
- Developing an OData Service for Simple List Reporting
- Defining the Data Model with CDS
- Creating an OData Service
- Designing the User Interface for a Fiori Elements App

RAP Concepts

- Data Modelling and Behavior
- Business Object
- Business Service
- Business Object Projection
- Service Definition
- Service Binding
- Service Consumption
- Runtime Frameworks



Entity Manipulation Language (EML)

- CRUD Operations using EML
- Local Operations on Entity

Develop Read-Only Application using RAP and Fiori Elements

- Developing Read-Only List Reporting Apps
- Determining the Data Model for the Read-Only Scenario
- Implementing Associations for Existing CDS Views
- Enriching UI Behavior using Metadata extension
- Providing Value Help for the Selection Fields
- Adding Search Capabilities

Develop Managed Transactional Apps

- Enhancing Behavior definition and Projection to enable transaction Behavior
- Implementing early numbering and late numbering
- Implementing Functions and Actions
- Enhancing application with draft capabilities
- Controlling UI behavior using static and dynamic feature control implementation

Annotations

- CDS Annotations
- Access Control Annotations
- Consumption Annotations
- Object Model Annotations
- OData Annotations
- Search Annotations
- Semantics Annotations
- UI Annotations



Fiori Elements and RAP

- Connecting BAS and configuring Development Space
- Creating List Report
- Enriching List Report with Filters, search and column capabilities
- Enriching Object page with Header, identification and field group facets
- Enriching Object page till 3 level navigation
- Handling validations – mandatory/option and data level validations via state and non-state messages from RAP
- Implementing feature control to dynamically control field status
- Understanding and implementing static feature control via Behavior Definition
- Adding actions in Fiori Elements via annotation
- Handling action implementation and trigger for Static and Factory Actions
- Deploying Fiori Application on Fiori Launchpad
- Deploying RAP Service to BTP and understand application execution on cloud

Developing Unmanaged Transactional Apps

- Reference Business Scenario
- Providing CDS Data Model with Business Object Structure
- Defining and Implementing Behavior of the Business Object
- Defining Business Service for Fiori UI

Additional Topic IMP for Real time implementation

- Early Numbering and Late Numbering
- Draft-Enabling the Managed Business Object
- Instance and Global Feature Control
- Defining Text Elements
- Providing Value Help
- Enabling Text and Fuzzy Searches in SAP Fiori Apps
- Using Virtual Elements in CDS Projection Views.
- Adding Authorization Control to Managed Business Objects
- Efficient Handling of State and Non-state messages