

Oracle SOA Suite 11g: Build Composite Applications (D53946)

ID D53946 Preis 4.025,- € (exkl. MwSt.) Dauer 5 Tage

Kursüberblick

This course teaches you to design and develop SOA composite applications for application integration with services. You'll use a Service-Oriented Architecture (SOA) implementation approach.

Learn To:

- Create a SOA Composite application using JDeveloper
- Initiate SOA composite applications using the Events Delivery Network
- Test, debug, and troubleshoot a SOA composite application
- Apply security policies to service endpoints

Oracle JDeveloper 11g Integrated Development Environment

With the Oracle JDeveloper 11g Integrated Development Environment (IDE), you'll learn how to design, develop, deploy and test SOA Composite applications. Composite applications are modeled and developed according to the Service Component Architecture (SCA) specifications.

Secure Interactions Between Services

These applications are comprised of Mediator, BPEL, Business Rules and Human Tasks (Workflow) components. You'll also learn how to secure interactions between services using Oracle Web Services Manager policies.

Benefits to You:

Learn how to integrate your organization's applications into agile, reusable, service-based connectivity to reduce risk and respond faster to

business requirements. Become more effective at managing and monitoring a composite application to support your organization's integration roadmap strategy and lower its total cost of ownership.

Zielgruppe

- Application Developers
- Business Analysts
- Developer
- Technical Consultant
- SOA Architect

Voraussetzungen

- Knowledge of XML, XML Schema, XSL Transformations and XPath
- Knowledge of web service standards, including SOAP and WSDL.

Kursziele

- Work with Mediator components with routing rules, filters, and transformations
- Orchestrate business process flows by using BPEL
- Implement Business Rule component with IF-THEN rules and decision tables
- Test, debug, and troubleshoot a SOA composite application
- Initiate SOA composite applications using the Events Delivery Network
- Apply security policies to service endpoints to secure interactions
- Implement Human workflow with Human Task components
- Describe SOA concepts and related technology
- Create a SOA composite application using JDeveloper

Kursinhalt

- Introduction to Service Oriented Architecture
- Getting Started with Composite Applications
- Managing and Monitoring a Composite Application
- Working With Data
- Using the JMS and JDBC Adapters
- Introduction to BPEL
- More BPEL Activities
- Handling Faults in Composite Applications
- Introducing Human Tasks
- Introducing Business Rules
- Testing SOA Composite Applications
- Securing Services and Composite Applications
- Designing and Managing Business Events
- Monitoring Composite Applications with Sensors and Oracle BAM
- Oracle BPM, Governance, and the SOA Suite

Detallierter Kursinhalt

Introduction to Service Oriented Architecture

- Describing Service-Oriented Architecture (SOA)
- Explaining Service Component Architecture
- Reviewing of services and key standards
- Explaining the Oracle SOA Suite 11g architecture and components
- Explaining Business Events and the Event Delivery Network

Getting Started with Composite Applications

- Describing basic synchronous and asynchronous interaction patterns
- Discussing XSD and Web Services Description Language (WSDL)
- Creating a Mediator component
- Defining a Routing Service
- Creating XSL Transformations with the XSLT Mapper
- Introducing working with adapters
- Creating a file adapter service reference
- Examining the composite.xml Source

Managing and Monitoring a Composite Application

- Deploying a Composite Application

- Versioning Applications
- Discussing Application state
- Using Configuration Plans
- Managing the life cycle of a Composite Application
- Testing a Composite Application
- Managing SOA Applications with JDeveloper
- Testing a Composite Application in Enterprise Manager

Working With Data

- Discussing Data Standards
- Using Attributes
- Introducing XSL Transformations
- Using XPath Functions
- Using the Mapper in JDeveloper
- Using Dictionaries
- Testing Transformations
- Working with native format data

Using the JMS and JDBC Adapters

- Introducing Binding Components and JCA Adapters
- Monitoring Adapters
- Discussing JMS Messaging
- Discussing Adapters and the WebLogic Application Server
- Introducing the Oracle JMS Adapter
- Configuring JMS Resources with WebLogic Administration Console
- Configuring the JDBC Adapter
- Discussing Transactionality

Introduction to BPEL

- Defining Business Processes and BPEL
- Introducing parts of a BPEL Process
- Discussing variables in a BPEL Process
- Using the Sequence and Scope Activities
- Using the BPEL Design Editor
- Testing a BPEL Process in Enterprise Manager

More BPEL Activities

- Conditional Branching with the If activity
- Processing with the Flow activity
- Parallel and Sequential Looping with the Foreach activity
- Suspending a process with the Wait activity
- Waiting for a message with the Pick activity

- Looping with the While activity
- Indexing XML arrays dynamically
- Discussing Synchronous and Asynchronous Interaction Patterns

Handling Faults in Composite Applications

- Introducing Faults and Fault Handling options
- Managing Faults in Synchronous and Asynchronous Mediators
- Introducing Faults and Fault Handlers in BPEL Processes
- Returning Faults from Synchronous and Asynchronous Processes
- Throwing Faults
- Introducing Compensation and Compensation Handlers
- Introducing the Fault Management Framework
- Recovering Faults with Enterprise Manager Fusion Middleware Control

Introducing Human Tasks

- Introducing Human Tasks
- Creating and configuring a Human Task in a Composite Application
- Adding a Human Task to a BPEL Process
- Generating and deploying Task Display Forms
- Using the Worklist Application to view and act on task information
- Introducing the Oracle User Messaging Service
- Configuring UMS Notification Properties
- Sending Notifications to Users Preferred Channel

Introducing Business Rules

- Introducing the Business Rule Component
- Describing the Oracle Business Rules architecture
- Creating rules and decision tables with the JDeveloper Rule Editor
- Examining Business Rule Component Files
- Describing the role of the Rules SDK
- Editing Business Rules at Runtime

Testing SOA Composite Applications

- Introducing the Composite Test Framework
- Defining Emulations and Assertions

- Discussing Test Suites and Test Cases
- Testing initiation of inbound messages
- Emulating outbound, fault, and callback messages
- Running Test Cases
- Examining results of a Test Run
- Debugging Composite Applications

Securing Services and Composite Applications

- Explaining security for services
- Describing the Fusion Middleware security architecture
- Attaching security policies at design time in JDeveloper
- Attaching security policies post-deployment in Enterprise Manager

Designing and Managing Business Events

- Describing the Event Delivery Network
- Creating a business event
- Publishing an event
- Subscribing to an event
- Managing events in Oracle Enterprise Manager

Monitoring Composite Applications with Sensors and Oracle BAM

- Creating and configuring BPEL sensors
- Creating and configuring composite sensors
- Introducing Business Activity Monitoring
- Creating a Data Object with BAM Architect
- Preparing an Oracle BAM Dashboard
- Integrating Oracle BAM with the BAM Adapter
- Creating and configuring a BAM Sensor Action in a BPEL Process
- Introducing Oracle Complex Event Processing

Oracle BPM, Governance, and the SOA Suite

- Exploring another definition of Business Process
- Introducing the Oracle Business Process Management Suite
- Explaining the elements of a BPMN Business Process Model
- Discussing SOA challenges and governance objectives
- Introducing the Oracle Governance solution
- Describing the governance lifecycle

