

Java Training: Creating Professional Web Services (JWSEC, 4 jours)

Description

The course Creating Professional Web Services (Java Training) is an exploration of Web Services using JEE. Starting with web services fundamentals, the training explores XML, DTD, XSD, SOAP, WSDL & UDDI. The Java API for XML, JAXB, JAXP, JAXM, JAX-RPC and SAAJ. The course teaches you to create simple & complex Java Web Services, including authorization & authentication. The training also demonstrates how to use Enterprise Beans in Java Web Services development.

Tarifs

- Tarification: \$3,750/person
- Rabais de 10% lorsque vous inscrivez 3 personnes.

Plan de cours

The Web Services Architecture

Evolution of Web Services

HTTP and XML

Interoperability Stacks

The Wire Stack and SOAP

The Description Stack and WSDL

The Discovery Stack and UDDI

Hosting Web Services

XML Basics

XML Overview

Well Formed XML

Valid XML: DTDs

Valid XML: XSD Schemas

Transforming XML: XSL

XML to XML

Java Architecture For XML Binding (JAXB)

JAXB Overview

Working with Schemas

Schema Binding and the Java Representation

Exploring Generated Classes and Interfaces

Marshalling/Unmarshalling the Document

Validating Data

A Complete Example

Weblogic And Web Services

The WebLogic Platform

Web Services Features

BEA-Speak for Web Services

WebLogic Workshop

WebLogic Server

Ant Tasks for Web Services

Development Process

Testing Web Services

The Java Web Services Architecture

Web Services and the JEE

WebLogic Support for Standard APIs

JAXP

SAAJ

JAXM

Low-Level Web Services

JAX-RPC High-Level Web Services JAXR, WebLogic, UDDI

SOAP

SOAP Messaging Model

SOAP Namespaces

Envelope, Header and Body

Faults, Attachments

Using XML Schema

Section 5 Encoding

Arrays

Multiple-Reference Values

SAAJ

The SAAJ Object Model

Parsing a SOAP Message

Bridges to JAXP

Working with Namespaces

Creating a Message

WebLogic SAAJ: Bugs and Limitations

SAAJ Web Services

Messaging Scenarios

Point-to-Point Messaging

SAAJ Services using JAX-RPC

Creating a JAXM Connection

Sending a Message

WSDL

Web Services as Components

The Need for an IDL

WSDL Description Model

The Abstract Model Service Semantics

Message Description

Messaging Styles

The Concrete Model Ports, Services, Locations

Extending WSDL Bindings

JAX-RPC

Two Paths

How It Works

Type Mappings

Generating from WSDL

Generating from Java

Which Way to Go?

Limitations

Generating Web Services From Java

The Java-to-XML Mapping

The Java-to-WSDL Mapping

WebLogic JAX-RPC: Bugs and Limitations

Analyzing the Domain

High-Level Ant Tasks

web-services.xml

When Things Don't Fit

Extensible Type Mapping

Generating Java Web Services From WSDL

The XML-to-Java Mapping

The WSDL-to-Java Mapping

Operation Inputs and Outputs

Building a Service Client

Locating a Service

Java-to-WSDL Interoperability

Creating a Web Service

Mid-Level Ant Tasks

Deploying the Service

WSDL-to-Java Interoperability

Controlling Names and URIs

Web Services And EJB

Enterprise JavaBeans

EJB 3.0 and JAX-RPC

Session Beans as Web Services

How It Works

The Service Endpoint Interface

SOAP as an RMI Transport

Generating From WSDL

Message Context And Message Handlers

Handling SOAP Headers

Servlet Endpoint Context

EJB Endpoint Context

Using SAAJ

JAX-RPC Message Handlers

Handler Chains

Processing Model and Patterns

Using JAXP

SOAP Attachments

SAAJ Revisited

MIME

Java Activation Framework

The MimeHeaders Class

The AttachmentPart Class

Identifying Attachments

Reading Attachments

Security

Web Services and Security

Threats, Tools and Techniques

Encryption and Signature

JEE Techniques

XML and SOAP Solutions