

Java Training: SOA Concepts, Design & Implementation (JAV302, 4 jours)

Description

The course SOA Concepts, Design & Implementation (Java Training) discusses every aspect of the planning, design and implementation of a Service Oriented Architecture (SOA) with Java. The course covers XML technologies (XML, DOM , SAX ,JAX, etc.) with a view to understanding design & implementation considerations in an SOA context. This is followed by a practical exploration of Web Service technologies and their use in Java. Technologies such as JAX-WS, client scripting, AJAX & REST are studied. This course provides participants with a complete, end to end, exploration of the design & implementation of an SOA architecture in Java.

Tarifs

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

Plan de cours

Overview of SOA

Client- vs. Server-Side Technologies

Distributed Applications: Technology and Infrastructure

Web Applications: Technology and Infrastructure

SGML, HTML, XHTML, and XML

The Need for XML

SOA Advantages and Disadvantages

A Note on ITIL V3 and SOA

Key Concepts: From Repositories to Interfaces

Key Technologies: SOAP and UDDI

The World of SOAP: Versions and Features

From Client Code to Service: The Communications Process

XML Technology Essentials

The Role of XML in Web Service Communications

How XML Works

Well Formed XML Documents

Well-Formed XML Summary

Document Validation Basics

Purpose and Design of XML Schemas

Schema Document Basics

Schema Namespaces

XSD Schemas

Schema Data Types: Simple and Complex

Using Element Groups

Attribute Groups

Creating Custom Data Types

Schema Comments

Importing Schemas

Linking the XML Document to a Schema

Understanding SOAP Documents

Deciphering WSDL

The Role of XSL: From XML to XML and from XML to XHTML

The Path to SOA Part 1 – Standards and Requirements

Identifying the Requirements

Using Business Use Cases to Define the Process

Writing Good Business Use Cases

Design Principles of an SOA Application

Deciding what Functionality will be exposed by the Service

Separating and Modularizing the Business Logic

The Art of Designing Loosely Coupled Services

Designing Services at the Appropriate Level of Granularity

The Path to SOA Part II – The Design

Applying Agile Modeling Techniques to Service Design

Moving from Use Cases to Formal Design

Using UML to Describe Service Design

The Art of Breaking down Complex Business Processes

Grouping Operations into Services

Factoring in Legacy Systems

The Path to SOA Part III – The Implementation

Developing the Service Interface

Planning and Implementing the Repository

Options for Developing the Service

SLAs and OLAs

Service Validation and Testing

Web Service Messaging Implementation

Creating a Web Service with JAX-WS

Using a Web Service

The Path to SOA Part IV – Deployment and Governance

Exploring WS-Basic Profile

Ensuring Reliability with WS-Reliable Messaging

Messaging

Protecting the Content

Using Page Inputs

Understanding SOA Enablers

What about ESBs?

Working with WS-Policy

JAX, SAX and other APIs

Event Driven vs Document Driven XML Processing

The SAX Handler Class

The SAX Client

JAX Basics: XML Document Manipulation

Creating New Documents

Applying XSL Transformations in Code

Introducing XML Beans

Client Scripting

The XML Document Object Model

Loading an XML Document

Creating New XML Elements via DOM

Creating New XML Attributes via DOM

XSL Transformations via DOM

AJAX and REST

[AJAX Overview](#)

[The XMLHttpRequest Object - AJAX](#)

[Understanding REST](#)

[Implementing REST with JAX-WS](#)

[RESTful Web Services using JAX-RS](#)

[A Forum on Web Service Technology](#)