

J2EE WEBSERVICES

An Overview of J2EE 1.4 Web Services

- The J2EE Platform
- The Technologies of Web Services
- The J2EE Web Service APIs

XML Basics

- XML Primer
- XML Namespaces

The W3C XML schema language

- XML Schema Basics
- Advanced XML Schema

SOAP

- The Basic Structure of SOAP
- SOAP Namespaces
- SOAP Headers
- The SOAP Body
- SOAP Messaging Modes
- SOAP Faults
- SOAP over HTTP

WSDL

- The Basic Structure of WSDL
- WSDL Declarations: The definitions, types, and import Elements
- The WSDL Abstract Interface: The message, port Type, and operation Elements
- WSDL Messaging Exchange Patterns.
- WSDL Implementation: The binding Element
- WSDL Implementation: The service and port Elements
- WS-I Conformance Claims

The UDDI Data Structures

- General Information about UDDI SOAP Messaging

- The Inquiry Operations

The UDDI Publishing API

- Operation Definitions and Payloads
- Fault Messages

JAX-RPC Overview

- The Server-Side Programming Models
- The Client-Side Programming Models
- Other JAX-RPC Topics Covered
- SAAJ

JAX-RPC Service Endpoints

- A Simple JSE Example
- The JSE Runtime Environment
- Multi-threading and JSEs

JAX-RPC EJB Endpoints

- An Enterprise JavaBeans Primer
- Enterprise JavaBeans Web Services

JAX-RPC Client APIs

- Generated Stubs
- Dynamic Proxies

Message Handlers

- A Simple Example
- Handler Chains and Order of Processing
- The Handler Runtime Environment

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Mapping Java to WSDL and XML

- Mapping WSDL to Java
- Mapping XML Schema to Java
- Holders
- Faults and Java Exceptions

Getting Started with JAXR

- Using a UDDI Test Registry
- Connecting to a UDDI Registry
- Using the Registry Service and BusinessLifeCycleManager
- The Bulk Response Type
- Exceptions

The JAXR Business Objects

- The Service and Service Binding Information Objects
- The Concept Information Object
- The Specification Link Information Object
- The Association Information Object
- Predefined Enumerations

The JAXR Inquiry and Publishing APIs

- Mapping JAXR to the UDDI Inquiry API
- Mapping JAXR to the UDDI Publishing API

SAX2

- Parsing with SAX: XMLReaderFactory and XMLReader
- The ContentHandler and DefaultHandler Interfaces
- Validating with W3C XML Schema

DOM2

- Parsing with DOM: DocumentBuilderFactory and DocumentBuilder
- Nodes
- Building a DOM Document
- Copying Nodes

J2EE Deployment

- Overview of the J2EE Deployment Process
- J2EE Web Services Deployment
- Deploying JSEs
- Deploying EJB Endpoints
- Service References

Web Service Descriptors

- The wsdl-file and wsdl-port Elements
- The port-component-name Element
- The service-endpoint-interface Element
- The service-impl-bean Element
- The jaxrpc-mapping-file Element
- The handler Element

JAX-RPC Mapping Files

- Conditions for a Lightweight JAX-RPC Mapping File
- A Lightweight Example
- A Heavyweight Example
- Anatomy of a Mapping File

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- DII

SAAJ

- A Simple SAAJ Example
- Creating a SOAP Message
- Working with SOAP Documents
- Working with SOAP Faults
- Sending SOAP Messages with SAAJ
- SAAJ 1.2 and DOM 2