

Curso Programación de Web Services con Java

Descripción: Los servicios Web están diseñados para permitir acceso basado en Web a software distribuido y servicios de negocio. Ofrecen un estándar, una arquitectura de servicio abierto para el desarrollo de componentes que les permite ser accedidos desde la Web con protocolos estándares como HTTP and y formatos XML para mensajes y descripción de servicios. En nuestro curso de Web Services entenderás la arquitectura actual de los Servicios Web y de las tecnologías que soportan Web Services incluyendo la nueva API de Java como lo es JAX-WS y JSR-181. Estos tópicos incluyen SOAP, WSDL, JAX-WS, SAAJ, Security, UDDI, y los estándares WS-*. Este curso es 30% teórico y 70% práctico. Los Servicios Web realizados se programan y ponen en producción utilizando Eclipse o MyEclipse.

Audiencia: Desarrolladores y arquitectos que requieran crear Servicios Web para comunicar aplicaciones multi-plaforma.

Prerrequisitos: Conocimiento o experiencia en programación Java y XML.

Service Oriented Architecture (SOA) and Web Services

- SOA Overview
- The Challenge of Enterprise Systems
- The Challenge of Legacy Systems
- Service Oriented Architecture (SOA)
- The Evolution of Computing
- SOA Concepts
- Some Advantages of SOA
- Some Issues with SOA
- Web Services Overview
- Web Services Defined
- Value Proposition
- Web Services Defined
- WS-* Web Services Specifications
- The Web Services Stack
- Web Services Stacks
- Architectural Perspective
- Architectural Details
- SOAP and WSDL Concepts
- SOAP Concepts
- Anatomy of a SOAP Message
- A Typical SOAP Scenario
- WSDL Concepts

XML Based Web Services

- XML Services – JAX-WS Providers
- XML Messaging
- JAX-WS Providers
- A SOAP Provider
- How Providers Work
- WebServiceContext
- MessageContext
- XML Clients – The Dispatch Interface
- XML Clients
- Service and Dispatch
- XML/HTTP Messaging and REST
- XML/HTTP Based Messaging
- A Provider Implementation
- WSDL for the HTTP Binding
- A Very Simple XML/HTTP Request
- A Very Simple XML/HTTP Response
- Provider Based Endpoints
- Overview of REST
- REST Details
- REST Characteristics
- Comparison of REST and SOAP
- JAX-WS and REST
- JAX-RS

Introduction to Java Web Services

- Java Web Services (JWS) Standards
- Java First Web Services
- Java Web Services Platform
- SOA Architecture with Java Web Services
- A Simple Web Service
- Defining a Simple Web Service
- Annotating the Implementation Class
- A Brief Note About Annotations
- Declaring the Web Service in web.xml
- Deploying the Web Application

Security

- Java EE Security and Web Services
- Security Requirements
- Security in Java EE
- Transport Level Security with HTTPS/SSL
- Java EE Security Overview
- Java EE Security
- Java EE Declarative Security
- Specifying Security Constraints
- Security Constraints – Deployment Descriptor
- Mapping Users to Roles
- HTTP Basic Authentication
- JAX-WS Clients and Basic Authentication
- HTTPS
- HTTPS / SSL – Transport Level Security
- HTTPS / SSL Meets Some Security Needs
- SSL Pros / Cons
- SSL Requires Server Setup
- Requiring HTTPS on a POJO Web Service
- Invoking a Web Service with HTTP
- WS-Security (WSS)
- Message Level Security
- XML Digital Signatures
- XML Encryption
- WS-Security Roadmap

WSDL

- Introduction to WSDL
- Overview of WSDL
- WSDL Elements
- WSDL Bindings
- WSDL in Practice
- XML Namespaces and XML Schema
- WSDL Documents are XML Documents
- XML Namespaces
- Namespaces Described
- Names Terminology
- Default Namespaces
- Namespaces in a WSDL Document
- XML Schema
- xsd:complexType
- xsd:complexType in WSDL
- WSDL Structure and Elements
- WSDL Anatomy
- <definitions> Element
- <documentation> Element
- <types> Element

- The Generated Types
- <message> Element
- <portType> and <operation>
- <binding> Element
- <port> and <service> Elements
- Operation Type

SOAP

- SOAP in a Nutshell
- What is SOAP
- SOAP 1.1 vs. 1.2
- What is a SOAP Message
- SOAP Message Structure
- A SOAP Message
- SOAP Detailed Structure
- SOAPMessage
- SOAP Faults
- SOAP Messaging and HTTP Binding
- SOAP Messaging
- SOAP Intermediaries
- SOAP Message Exchange Patterns
- SOAP Binding
- SOAP HTTP Binding
- HTTP Request/Response Details
- SOAP Styles and Encoding
- SOAP Styles
- Literal Encoding
- SOAP Encoding

The Java Web Service Specifications

- JSR-181: WS-Metadata
- JSR-181 Defines the Web Service
- @WebService Details
- Affecting the Generated WSDL
- Other Important JSR-181 Annotations
- The Service Endpoint Interface (SIE)
- An SEI and an Associated SIB
- @WebMethod Details
- @oneway Details
- @SOAPBinding Details
- WRAPPED vs. BARE
- @WebParam and @WebResult
- JAX-WS Capabilities
- JAX-WS
- WSDL / Java Mapping
- XML Messaging Support
- Handler Framework
- SOAP and HTTP Binding
- JAX-WS Client Side Programming
- Creating JAX-WS Clients
- Client Side Programming Model
- Generated Classes for Service and Port
- Details of the Generated Javalnstructor
- Details of the JavalnstructorService Class
- Writing a JAX-WS Client
- Dynamic Proxies
- The QName and Service Types
- SAAJ
- SAAJ Overview
- SAAJ message Structure
- SOAPMessage
- SOAPPart and AttachmentPart

EJB Based Web Services

- EJB Overview
- What is EJB
- EJB Goals
- Types of Enterprise JavaBeans
- EJ Transaction Support
- EJB 3.0 Overview
- Session Bean Capabilities
- Benefits of Using EJB
- SOA Architecture with EJB
- Issues with EJB
- Programming EJB
- What are Session Beans
- Stateless Session Beans (SLSB)
- Defining a Session Bean
- Stateless Session Bean Definition
- Remote Business Interface
- EJB Packaging – ejb-jar File
- The EJB Container
- Server Deployment
- Creating EJB Based Web Services
- EJB Based Web Services
- Why Use EJB for Web Services
- Specifying the Context and Service URLs
- Security in EJB Based Web Services

UDDI

- UDDI Overview
- UDDI Capabilities
- What is Stored in a Registry?
- Locating and Invoking a Web Service
- UDDI Elements
- Programming in UDDI
- JAXR
- JAXR Overview
- JAXR Architecture
- JAXR Information Model
- JAXR Packages
- ConnectionFactory
- The RegistryService Interface
- Other Common JAXR Types

WS-* Overview

- The WS-* Specifications
- WS-I Interoperability
- WS-I Profiles
- WS-I Basic Profile
- WS-Addressing

- SAAJ Classes (in Brief) – In javax.xml.soap
- SAAJ Classes (in Brief)
- Creating SOAP Messages with SAAJ
- Sending a Message with SAAJ
- SOAP Attachments
- DOM
- SAAJ and DOM
- DOM Overview
- JavaTunes Order XML Document
- JavaTunes Order as a Dom Tree
- The DOM Tree
- The DOM Interfaces
- The Node Interface
- Navigating the DOM Tree
- The Document and Other Interfaces
- Extracting Content with SAAJ DOM
- SOAP Handlers
- Handler Processing
- Logical and Protocol Handlers
- The SOAPHandler Interface
- MessageContext
- SOAPMessageContext
- Handler Invocation
- MessageContext Properties
- Configuring Handler Chains
- Returning a Fault
- Logical Handlers
- JAXB
- JAXB Overview
- JAXB Architecture
- Java Web Services and JAXB
- JAXB and WSDL Mapping
- The JAXB Annotations
- Using JAXB with Java Web Services
- Using JAXB
- Starting from WSDL or WSDL & Java
- Starting from WSDL
- Binding Customization
- Other Customizations
- Starting from WSDL and Java

Duración:

20-24 horas

Sede de impartición:

Altadena 26. Col. Nápoles, México, D .F. o WTC Ciudad de México Piso 37

Sede para informes:

Altadena 26. Col. Nápoles, México, D .F.

Incluye:

Diploma de participación por parte de nuestra empresa, estacionamiento (si el curso es en nuestras instalaciones), material de los curso y servicio de cafetería.

Formas y condiciones de pago:

Para la inscripción, aplicación de los descuentos y aseguramiento de que el diplomado se impartirá en las fechas pactadas se requiere el pago anticipado 2 semanas antes de la fecha de inicio con depósito o transferencia bancaria a la siguiente cuenta:

- ❖ Depósito en Banamex cuenta 4923239 Suc. 575 a nombre de Desarrollo y Capacitación en Internet, S. A. de C. V. (CLABE en caso de transferencia electrónica vía Internet 002180057549232394)
- ❖ O cheque a nombre de Desarrollo y Capacitación en Internet, S. A. de C. V.

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