Java EE 6: Develop Web Services with JAX-WS & JAX-RS

This Develop Web Services with JAX-WS & JAX-RS training teaches business component and client developers how to design, implement,and deploy web services and web service clients. Do so Java technology components and the Java Platform, Enterprise Edition 6 SDK.

Learn To

This Java EE 6 programming course covers the design and creation of SOAP and RESTful web services and clients. You'll use the NetBeans Integrated Development Environment (IDE) to develop JAX-WS and JAX-RS web services and deploy those services to Oracle WebLogic Server 12c. The majority of topics covered are portable across all application servers which support the Java EE 6 web service standards.

Learn To:

- Create XML documents and XML schemas while using XML Namespaces.
- Produce and consume JSON and XML using JAXB.
- Understand WSDL files and the role they play in SOAP based web services and select either a top-down (WSDL first) or bottom-up (code first) approach to the development of SOAP web services.
- Make calls to and implement web services based on SOAP standards using JAX-WS (Metro Stack).
- Implement REST practices in the creation of web services with the JAX-RS specification (Jersey Stack).
- Secure web services using Java EE Security standards, WS-Security extensions, and OAuth 1.0a.

Benefits to You

Java EE 6 technology facilitates cross-platform application development through the use of platform neutral network communication, supports HTML5 AJAX enabled applications and mobile clients by creating RESTful web services which use the JSON data-interchange format. Enrolling in this course will help you stay current on the latest Java EE 6 web service APIs.

Prerequisites

Suggested Prerequisite

- Java SE 7: Develop Rich Client Applications Ed 1
- Java Design Patterns Ed 1
- Tutorials available on the Oracle Learning Library
- Oracle Certified Associate, Java SE 7 Programmer
- Oracle Certified Professional, Java SE 7 Programmer

Audience

- Developer

Course Objectives

- Apply the JAX-RS API in the creation of RESTful Web Services
- Secure Web Services using WS-Security, Jersey, and OAuth
- Handle errors and exceptions in Web Services and clients
- Create XML documents using namespace declarations and XML schema
- Produce and consume XML and JSON content using JAXB
- Create RESTful Web Service clients using the Jersey Client API
- Understand the role of Web Services
- Apply the JAX-WS API in the creation of SOAP Web Services and clients

Course Topics

- An Introduction to Web Services
- XML
- JAXB
- SOAP Web Services
- Creating JAX-WS Clients
- RESTful Web Services
- Creating RESTful Clients in Java
- Bottom-Up JAX-WS Web Services
- Top-Down JAX-WS Web Services
- JAX-RS RESTful Web Services
- Web Service Error Handling
- Security Concepts
- WS-Security
- Web Service Security with Jersey
- OAuth 1.1a with Jersey