REST Service Development with Java

Information

Length:	3.0 Days
__Ref:	WD507G-X
Delivery method:	ClassroomInstructor Led Online
Price:	EUR

Overview

This course teaches software developers how to build web services using Representational State Transfer (REST). Students learn the benefits of and the technical architecture for using REST in applications, including how to design, build, and test RESTful services using Java and JAX-RS. This includes the role of key technologies such as HTTP, Extensible Markup Language (XML), and JavaScript Object Notation (JSON). Students also learn how to consume RESTful services in applications, including the role of JavaScript and Ajax.

Hands-on exercises throughout the course enable students to use IBM Rational Application Developer V8 and IBM WebSphere Application Server V7 to develop a RESTful interface and servlet, debug RESTful web applications, and build a JAX-RS application.

For information about other related courses, visit the IBM Training website: http://www.ibm.com/training

Public

This intermediate course is designed for application developers interested in building RESTful interfaces to server-side applications in a Java EE environment.

Prerequisits

Students should have:practical knowledge of the Java programming language, and be familiar with application development in a Java Enterprise Edition (Java EE) platform such as IBM WebSphere Application Server.

Experience with Rational Application Developer **or** another Eclipse-based development environment is also beneficial.

Objective

- Describe the benefits of using REST in application development

- Describe the technical architecture for RESTful applications
- Describe the technologies for implementing RESTful services in Java, including JAX-RS, Restlet, and standard servlets
- Describe the use of XML and JSON in RESTful web services
- Use JAX-RS to simplify connecting directly to Enterprise Java services using REST
- Describe the differences between the various mechanisms used to transfer data between client and server in RESTful services
- Leverage JavaScript Object Notation (JSON) as a lightweight data format
- Set up a development environment to use IBM Rational Application Developer V8 and WebSphere Application Server V7 to develop and test REST-based applications

Topics

- Course introduction
- Representational State Transfer (REST)
- Exercise: Creating a RESTful interface
- The technologies in RESTful and Web 2.0 applications
- Exercise: Building a simple RESTful servlet
- Web 2.0 protocols and data formats
- Exercise: Defining a JSON format for a business object
- Web 2.0 support in WebSphere Application Server
- Writing applications using JAX-RS - Part 1
- REST and JAX-RS in Rational Application Developer 7.5.5 and 8.0
- Exercise: Building a JAX-RS application -Part 1
- Exercise: Using tools to debug a RESTful web application
- Writing applications using JAX-RS -Part 2
- Design considerations for REST
- Exercise: Building a JAX-RS application - Part 2
- Client-side technologies for RESTful applications
- Exercise: Building a JAX-RS application - Part 3
- Course summary