Java RESTful Service Essentials (TT7305)

Varighed: 2 Days   Kursus Kode: GK0396   Leveringsmetode: Company event (Firmakursus)

Beskrivelse:

Geared for experienced developers, Java RESTful Service Essentials is a two day, lab-intensive services training course that introduces developers to the core concepts, principles, and Java implementations for RESTful services.

Firmakursus

Med et firmakursus bliver jeres it-kompetenceudvikling målrettet jeres behov. Det betyder, at vi hjælper med at finde og sammensætte det helt rigtige kursusindhold og den helt rigtige form. Kurset kan afvikles hos os eller kunden, standard eller virtuelt.

Målgruppe:

This is an intermediate level training course, designed for experienced Java developers and architects who need to identify, design, and implement web services. We will explore and apply the terminology, the specification, the processes and technologies specific to web services.

Agenda:

- Understand and apply the basic concepts of REST

- Understand and intelligently discuss the similarities and differences between RESTful services and SOAP-based services

- Appreciate the security concerns associated with RESTful services

- Design, develop, and deploy real-world RESTful Services

- Effectively define and design endpoints

- Work with query parameters

- Determine the best format to use for exchanging data

- Understand the principles associated with HTTP methods and how to stay congruent to them

- Extend the semantics of the RESTful service beyond the HTTP methods

- Implement RESTful services using JAX-RS to

- Handle various HTTP methods

- Use different approaches for parameters

- Deal with content negotiation

- Work with different data formats including XML and JSON

- Handle exceptions

- Implement RESTful services using Spring REST to

- Handle various HTTP methods

- Use different approaches for parameters

- Deal with content negotiation

- Work with different data formats including XML and JSON

- Handle exceptions

Forudsætninger:

Students should have basic understanding and working knowledge in the following topics, or attend these courses as a pre-requisite:

- TT2100 Mastering Java 7 for OO Developers

- TT5100 Mastering JEE Web Application Development
- TT4300 XML Essentials
- Students should have 1-2 years of working knowledge with Servlets and Spring, and should be familiar with XML and JSON.

Indhold:

Session: Working with REST

Lesson: Overview of REST

- REpresentational State Transfer
- REST Characteristics
- REST Elements
- REST Architectural Principles
- REST and HTTP
- REST/HTTP: Representation-Oriented
- REST Design Principles

Lesson: Designing RESTful Services

- Effectively Designing RESTful Services
- Best Practices for Endpoint Definition
- Using Query Parameters
- Working with HTTP GET and DELETE
- Working with HTTP PUTWorking with HTTP POST
- Best Practices for HTTP
- Methods
- Handling Additional Operations

Session: Implementing REST with JAX-RS

Lesson: Overview of JAX-RS

- JAX-RS Implementations
- JAX-RS Service Class
- JAX-RS Service Lifecycle Options
- Consuming RESTful Services

Lesson: @Path: URI Matching

- @Path Annotation
- @Path Expressions
- @Path and Regular Expressions
- HTTP Method Annotations

Lesson: Injection Using JAX-RS

- Parameters
- Working with @PathParam
- Header and Cookie Values Can be Injected
- Working Programmatically with URI

Lesson: Handling Exceptions

- REST/HTTP 1.1 Error Response Codes
- Overview of Exception Handling in JAX-RS
- JAX-RS's WebApplicationException

Lesson: Handling Content

- JAX-RS Built-In Content Handlers
- Content Marshaling
- Using JAXB With JAX-RS
- Working With JSON
- Content Negotiation (Conneg)

Lesson: RESTful Services in Spring

- Spring Support for REST
- Spring's Parameter Injection
- Handling Transformations in Spring
- Negotiated view-based rendering
- HTTP Message Converters

Lesson: RESTful Clients in Spring

- Spring's Hidden Method Field
- Processing Incoming REST Requests
- Spring's Support for REST Clients
- Performing GET Requests and Other Methods

Sessio

n: Security and REST

Lesson: Securing Untrusted Input

- Input Data Attacks
- Tenacious D
- Responding to Error State
- Best Practices for Untrusted Data

Lesson: Defending REST

- How Attackers See REST
- Factors that Increase Attack Surface
- Bridging and its Potential Problems
- Dangerous Developer Assumptions
- Three Basic Tenets for Safe REST

Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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