



Integrating AJAX and JEE (TT4250)

Length: 5 days

Description

This course is an intensive, hands-on introduction to Ajax that extends into using Ajax within JEE architectures and technologies. The course is a balanced mixture of theory and practical labs designed to take students from the basic fundamentals of Ajax and its underlying technologies through to the use of tools and libraries to ease the development of Ajax applications. This course specifically focuses on using Ajax as part of the content being delivered by JEE applications. Graduates will hit the ground running, applying Ajax to JEE project at both an architectural as well as a line by line coding level.

Audience

JEE Developers. This is an **advanced** level JEE and AJAX training course, designed for those needing an introduction to concepts and technologies associated with AJAX and its related recommendations with a specific focus on JEE integration.

Prerequisite

Previous experience or working knowledge of JEE is required. Previous experience or knowledge of HTML and JavaScript is helpful but not essential.

Topics

INTRODUCTION TO AJAX

Ajax Overview

- What is Ajax?
- Ajax Technologies
- Ajax Architecture
- Ajax Flow of Control and Processing

AJAX FOUNDATION

XMLHttpRequest (XHR) Mechanics

- XMLHttpRequest Overview
- Working with the XHR Object
- XHR Operations and Properties

JavaScript Mechanics

- JavaScript Overview
- JavaScript Syntax, Functions, Objects and Events
- JavaScript Best Practices

CSS Mechanics

- CSS Overview
- Declaring CSS
- Controlling Display and Position
- Overriding Tag Behavior
- Working with Custom Classes

DOM Mechanics

- DOM Overview
- JavaScript Events and the DOM
- Accessing Information in the DOM
- Modifying the DOM using JavaScript
- InnerHTML

XML Mechanics

- XML Overview
- XML DOM
- Accessing and Modifying the XML DOM

JavaScript Applied in Ajax

- Handling Requests



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- Object Manipulation
- Refactoring JavaScript in Ajax

AJAX FUNDAMENTALS

Ajax Applications

- Example Forms
- Data Processing

Ajax Tools and Frameworks

- Tool and Framework Overview
- Dojo
- Prototype and Other Frameworks

JAVASCRIPT OBJECT NOTATION (JSON)

JSON Overview

- Architecture and Use
- JSON Object Concepts
- JSON Syntax
- JSON Processing
- JSON Considerations

XSLT AND AJAX

XSLT Fundamentals

- XSLT Processing
- XSLT Constructs

XSLT Applied

- Browsers
- Sarissa

ADVANCED AJAX TECHNIQUES

Ajax Behavior

- Auto Logout
- Auto Completion
- Info on Demand
- Drag and Drop

Editing

- Inline Editing

DIRECT WEB REMOTING (DWR)

DWR Overview

- Architecture and Use
- Building DWR-Enabled AJAX Applications
- Local and Remote Functions
- Handling Parameters
- Standard DWR Functions
- DWR Error Handling

GOOGLE WEB TOOLKIT (GWR)

GWR Overview

- Architecture and Use
- Building GWR-Enabled AJAX Applications
- Standard GWR Constructs
- Local and Remote Functions
- Handling Parameters
- GWR Error Handling

INTEGRATING AJAX AND JSF

JSF Overview

- Architecture and Use
- Integrating AJAX in to JSF Applications
- Standard JSF Constructs
- AJAX-Enabled JSF Components
- Handling AJAX Requests Within JSF
- Best Practices for Integration

AJAX DESIGN PATTERNS WITHIN JEE

- Programming Patterns
- Interaction Patterns
- Diagnosis and Testing Patterns