Java EE Programming: Ajax with Spring 3.0

Meet the expert: Greg Matus combines his practical programming skills and mentoring excellence to develop the highest quality educational programs available. His technical focus includes developing programs and projects focused around advanced application development, performance, and tuning skills and technologies. His specialties include Java, advanced J2EE / JEE, AJAX, XML, Web Services, JSP, SQL, JDBC and Database topics, Oracle, Eclipse, WebLogic, and more.

Prerequisites: This an intermediate- level Spring 3.0 training course, designed for developers who need to understand how and when to use Spring in Java and JEE applications. You should have practical basic Java development experience.

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Course description: The Spring 3.0 framework combined with Ajax gives you as a web developer a strong platform to develop web applications with. This course covers some of the ways that Ajax and Spring 3.0 can be used to create web applications. The course starts with an Ajax overview and then gets in XHR mechanics. The course will then cover JavaScript mechanics then Cascading Style Sheets (CSS) with in Spring. You will then learn about the HTML Document Object Model (DOM) and how to work with nodes. Then the course covers XML DOM Mechanics on how to handle XML responses. You will then learn about applied JavaScript and its approach to XML HTTP request calls. You will then see an Ajax application built and end the course with JSON objects.

Course outline:

AJAX Overview
- Introduction
- Ajax Basics
- The Purpose of Ajax
- Traditional Web Application
- Ajax Web Application
- Demo: Traditional Web App
- Demo: Ajax Web App
- Summary

XHR Mechanics
- Introduction
- XMLHttpRequest Object
- Creating XMLHttpRequest Object
- XMLHttpRequest Mozilla Method
- XMLHttpRequest IE Method
- Cross Browser XMLHttpRequest
- Using an XMLHttpRequest Object
- Open Method Arguments
- Request Types
- Request Types: Heads
- Request Types: Get
- Request Types: Post
- Asynchronous vs Synchronous
- Handling the Responce
- Values of readyState Property
- Handling readystatechange
- XMLHttpRequest Object Prop
- XMLHttpRequest Object Methods
- Summary

XHR Mechanics Demo
- Introduction
- Demo: Post Method
- Summary

JavaScript Mechanics
- Introduction
- JavaScript Defined
- Embedding Scripts in HTML
- Identifiers and literals
- Non Standard Operators
- Strings
- Summary

JavaScript Objects
- Introduction
- JavaScript Objects
- JavaScript Literals
- JavaScript Objects
- Associative Array
- Object Universal Properties
- JavaScript Array
- Arrays
- Array Methods
- Summary

JavaScript Functions
- Introduction
- Defining JavaScript Functions
- Function
- Functions in JavaScript
- Invoking Functions
- Functions as Data
- Functions as Methods
- Function Constructor
- Function Scope and Closures
- Summary

Control Structure
- Introduction
- Loop Structures
- Iteration
- Loop Structures 2
- Conditional Structures
- Logical
- Return
- Throw
- String Objects
- Working with Arrays
- With
- The With Statement
- Defining Classes
- Functioning Constructors
- Prototype Property
- Extending Classes
- Extending Classes With Prototype
- Javascript and JSP
- Summary

JavaScript Event Handling
- Introduction
- JavaScript Event Handling
- Event Models
- Basic Event Handling
- Handling HTML Events
- Event Handling With Dom Level 2
- Dom 2 Event Propagation
- Event Handler Registration
- Summary

JavaScript Misc
- Introduction
- InnerHTML
- JavaScript Security
- Same Origin Policy
- Timers Within Browser Windows
- Window and Screen Information
- Opening and Manipulating Windows
- Execution: Global Object
- Execution: Call Object
- Execution Context
- Scope Chain
- JavaScript in Browser
- Window Object - Global Context
- Executing Scripts
- OnLoad Event Handler
- Window Object as Execution
- Threading
- Manipulating Document
- Summary

JavaScript Basics Demo
- Introduction
- JavaScript Demo
- Summary

CSS
- Introduction

(Continued on page 2)

Java EE Programming: Ajax with Spring 3.0

- Intro to CSS
- Applying CSS
- Connecting CSS to Documents
- Style Rules Summary
- Defining Style Rules
- CSS Selectors
- (Simple) Selectors
- Class Selectors
- ID Selectors
- Contextual Selectors
- CSS Properties
- CSS Declarations and Rules
- Grouping / Inheritance
- Comments
- Types of Formatting Elements
- Pseudo-class and -elements
- Pseudo-elements
- Importing a Style Sheet
- Cacading Order
- Summary

CSS Basics Demo
- Introduction
- CSS Basics Demo
- Summary

DOM Mechanics
- Introduction
- HTML Document Object Model
- Introduction to Scripting
- Dom Structure
- Structure of a Page
- Dynamic Document Content
- The HTML DOM
- Accessing Nodes
- Accessing Element Nodes
- getElementByTagName()
- getElementById()
- Accessing Element Nodes
- The this Object
- Attaching Events
- Code Explanation
- Demo: Events
- Summary

DOM Mechanics Nodes
- Introduction
- Accessing Attribute Nodes
- Accessing Nodes by Type
- Node Type Constants
- nodeName
- nodeValue
- Accessing Nodes by Class Name
- Prototypes
- removeChild() Method
- DOM Differences
- Demo: Browser Differences
- Summary

DOM Mechanics Adding Nodes
- Introduction
- Creating New Nodes
- Methods for Inserting Nodes
- Code Explanation
- Demo: Node Insertion
- setAttribute() Method
- Introduction to Forms
- Form Object
- Scripting Form Elements
- Demo: Forms
- Summary

Working With Nodes
- Introduction
- Creating a DOM Document
- Populating a DOM with XML
- Properties for Accessing
- Methods for Inserting Nodes
- XML to HTML
- Code Explanation
- Demo: XML to HTML
- Creating an AddChild() Func
- Demo: AddChild()
- Summary

Receiving Responses
- Introduction
- Receiving XML Responses
- Demo: XML Responses
- Summary

Handling Response XML
- Introduction
- Demo: Handling Response XML
- Summary

Applied JavaScript Basic
- Introduction
- Demo: Applied JavaScript
- Summary

Applied JavaScript Basic Pt 2
- Introduction
- Creating New JavaScript Objects
- JavaScript Classes
- Creating Multiple Objects
- Prototypes
- Extending
- OO Approach
- Reusable, Flexible Classes
- Demo: XMLHttpRequest
- Summary

Applied JavaScript Basic Pt 3
- Introduction
- Demo: XMLHttpRequest Continued
- Summary

Ajax Applications
- Introduction
- Demo: Ajax Applications
- Summary

Quick Lookup Form
- Introduction
- Demo: Quick lookup form
- Summary

Quick Lookup Form Continued
- Introduction
- Demo: Another Lookup Form
- Summary

Ajax Applications Slideshow
- Introduction
- Demo: Slideshow
- Summary

JSON Object Notation
- Introduction
- JSON Overview
- Arrays
- Objects
- Arrays in Objects
- Objects in Arrays
- JSON Syntax
- JSON Parsers
- Sending Data
- HTML: Using JSON
- Server: Using JSON
- JSON vs XML
- Advantages
- Disadvantages
- Summary

Using JSON
- Introduction
- Demo: Using JSON
- Summary