Sela.

JSP

Web Servlets and JSP

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JSP - Version: 1.14

3 days Course

Description:

Discover Sun's cutting edge technologies for building backend Web applications, in a 3 days course dealing with Servlets and JSP. We begin with a quick overview of Web basics and server side programming, followed by an introduction to J2EE Web Applications and Java Servlets. We then deal with the technology's pros and cons and explore its commonly used features, including request manipulations, threading issues, session tracking and cookies. Once students are comfortable with the world of Servlets, we continue our journey by looking at things from the JSP point of view. We teach the various nuances of JSP by comparing it to its ancestor, and learn to optimize our applications using Java Beans.

Intended audience:

This course is intended for Skilled Java Programmers and Team leaders.

Prerequisites:

A working knowledge of Java.
A basic knowledge of HTML.

Objectives:

A better understanding of the Servlets and JSP technologies
A good foundation for building server-side applications in Java.

Topics:

Web Basics

- The Internet
- The OSI Model
- The Internet Protocol
- Transmission Control Protocol
- Domain Name System
- Ports
- Uniform Resource Locator
- Hypertext Transfer Protocol
- HTTP Messages
- Request Methods
- MIME
- Proxy and Firewall
- The Big Picture

Servlets Basics

- Why Use Server Side Programming
- Other Technologies
- Why Use Servlets
- So What Is JSP ?
- Application/Applet/Servlet
- Web Servers
- Web Containers
- The Big Picture
- A Typical Servlet
- How Servlets Work
- Servlet’s Life Cycle

J2EE Web Applications

- Some Terminology
- The J2EE Big Picture
- Web Applications
- The web.xml Deployment Descriptor
- Web.xml – Document Definition
- Web.xml – Adding Servlets
- Web.xml – Mapping Servlets
- Web.xml – Sending Parameters
- Web.xml – Pre-loading Servlets
- The Directory Structure
- Web Application Archive
- Deploying Web Applications

Servlets API

- Servlets Packages
- Main Classes Hierarchy
- HttpServlet
- DoGet() Method
- DoPost() Method
- Generating the Response
- The HttpServletRequest Object
- Getting Parameters
- Getting Parameters – Multiple Values
- Getting Parameters – Generic Names
- The init() and destroy() Methods
- ServletContext

- Sharing Resources
- Getting Initialization Parameters
- Logging
- Threading Issues
- Synchronizing Data
- SingleThreadModel
- Request Dispatching
- The RequestDispatcher Interface
- Response Redirection

Cookies and Session Management

- Motivation
- Back to the Stone Age
- Cookies
- Sending and Receiving Cookies
- Expiration Date
- HttpSession
- The HttpSession Interface
- Summary
- Application Life Cycle
- Overview
- How Does It Work ?
- Registering Listeners
- ServletContextListener
- ServletContextAttributeListener
- HttpSessionListener
- HttpSessionAttributeListener
- HttpSessionBindingEvent

Java Server Pages

- What is JSP
- But We Already Have Servlets
- Divide and Conquer
- Choose One
- Enjoy the Best of Both World
- How Does it Work

JSP API

- JSP Basics
- JSP Comments
- Regular Static HTML
- The Page Directive
- Available Packages
- JSP Scripting Elements
- Expressions
- Declarations
- Scriptlets
- Implicit Objects
- The Request Object
- The Out Object
- The Include Directive
- The Include Action
- The Forward Action
- The Param Action
- Cookies
- Handling Errors
- Summary

JSP and Java Beans

- Adding Some Magic Beans
- Beans Conventions
- Using Beans – Getting a Handle
- Using Beans – Getting a Property
- Using Beans – Setting a Property
- Scopes
- The Request Scope
- The Session Scope and Implicit Object
- The Application Scope and Application Object
- Useful Resources