J2EE Web Application Programming Using BEA WebLogic

Course Summary

Description

This class covers how to develop J2EE Web applications that use servlets and JSPs.

Topics

- Web Architecture Review
- Introduction to servlets
- Installing and Configuring a Servlet Container
- Programming Servlets
- Servlet Error Handling
- Web Applications
- Servlets and Sessions
- Servlets and JDBC
- Introduction to JSP
- JSP Syntax
- JSPs and JavaBeans
- JSPs and Databases
- JSPs and Sessions
- The JSP Standard Tag Library
- Writing Custom Tag Libraries
- JSPs and XML
- Combining JSPs and Servlets and MVC
- Web Application Security
- Servlet Filters
- EJB Overview

Audience

This course is designed for experienced Java developers that wish to learn how to program J2EE Web applications.

Prerequisites

Students should have prior Java programming experience.

Duration

Four and ½ days
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Course Outline

I. Introduction to the Workshop
II. Web Architecture Review
   A. HTML Forms
   B. CGI Overview
III. Introduction to Servlets
    A. What is a Servlet?
    B. Servlets vs CGI
IV. Installing and Configuring a Servlet Container
    A. Container Vendors
    B. Deploying Web Applications
V. Programming Servlets
   A. Servlet Lifecycle
   B. Servlet API
VI. Servlet Error Handling
    A. HTTP Error Codes
    B. Servlet Exceptions
VII. Web Applications
    A. Web Application Structure
    B. Deploying Web Applications
VIII. Servlets and Sessions
    A. What is a Session?
    B. Servlet API for Sessions
IX. Servlets and JDBC
    A. JDBC Overview
    B. Using JDBC From a Servlet
X. Introduction to JSP
    A. What is a JSP?
    B. JSPs versus Servlets
XI. JSP Syntax
    A. Actions and Directives
    B. Writing Scripting Elements
XII. JSPs and JavaBeans
    A. JavaBeans Review
    B. JavaBean and JSP Scopes
XIII. JSPs and Databases
    A. Architectural Considerations
    B. Using JDBC in a JavaBean
XIV. JSPs and Sessions
    A. Implicit Variables
    B. Using Session API
XV. The JSP Standard Tag Library
    A. Using a Tag Library
    B. JSTL Actions
XVI. Writing Custom Tag Libraries
    A. Custom Actions versus JavaBeans
    B. Writing Body and non-Body Actions
XVII. JSPs and XML
    A. XML Overview
    B. Generating XML from a JSP
XVIII. Combining JSPs and Servlets and MVC
    A. Forwarding versus Redirecting
    B. Using Hidden Form Fields
XIX. Web Application Security
    A. Authentication Mechanisms
    B. Defining Roles and Constraints
XX. Servlet Filters
    A. Why Use Filters?
    B. Filter API
XXI. EJB Overview
    A. What are EJBs?
    B. Session Beans
    C. Entity Beans
    D. Message-Driven Beans
    E. Developing and Deploying an EJB