

J2SE: Java Web Development

Instructor: Noah Kriegel is a software engineer and instructor specializing in the development of custom Web-based enterprise applications. Noah's primary language proficiencies include Java, Visual C#, C and Pascal/Delphi.

Total Learning Time: 7-21 hours

Media run time is 7+ hours, total learning time could be up to 21 hours if the courseware, labs and exams are utilized. This course can also be used as quick reference material, with the ability to access just the information you need in a matter of minutes.

Course Description: This course covers the fundamental technologies and techniques required to create web applications using Java. It shows how to handle common servlet tasks such as setting and reading HTTP headers, threading requirements, techniques for storing state information (cookies, URL re-writing, hidden fields), the session management API's, gathering parameters, handling different content (HTML, Plain Text, Spreadsheets, Images), database access from servlets, and more. In JSP technologies, this class covers the different types of JSP content (scriptlets vs. jsp tags), property management, using Java beans within JSP's, controlling scoping, and design techniques.

Course Outline:

Installation

- Java EE
- Tomcat

Intro to HTTP Servlet

- HTTP Servlet basics
- Request and Response Objects

Servlets and Containers

- Generic Servlet
- Servlet Containers
- Servlet Lifecycles

Servlet, Server, and Client Info

- Getting information off the client Request
- Getting information about the Web Server

Responding to the Client

- The HTTPResponse Object
- Producing Output
- MIME type settings

Tracking Sessions

- Stateless Web Issues
- Using the Session Object

Servlet Database Connectivity

- JDBC Development in Servlets

JSP Fundamentals

- Introduction to Java Server Pages
- JSP page structure
- Basic JSP syntax

JSP Actions and Objects

- Using Built-in Objects
- Understanding JSP Actions

Writing and Using Java Beans

- Rules for Creating Java Beans
- Using Java Beans in JSP Pages

Databases and JSP

- JDBC Development in JSP

Handling Errors and Debugging

- Syntax Errors
- Handling Exceptions
- Reporting Errors to Clients
- Finding Bugs

JSP Application Design

- MVC Design Pattern
- Page Centric Design
- Servlet Centric Design

Deploying Web Applications

- Web Deployment Descriptor
- File/Directory Structure
- Web.xml

Ant Build Files

- Using Scripts
- Installing ANT
- Creating an Ant Build File

Custom Tag Libraries and JSTL

- Understanding Tag Libraries
- Introduction to JSTL

Number of Modules	Media Run Time	Total Learning Time	Printable PDF Courseware*	Hands-on Labs	Sample Code	Pre/Post Exams	Supports Microsoft Exam Number
6 Modules	7+ hours	7-21 hours	350+ Pages	Yes	Yes	Yes	N/A

* Professionally printed, bound courseware (student manuals) are available. Ask for details.