



GuruGuides, LLC

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## Building Web Applications with Servlets, JSP and Struts

### Course Outline

**10 % off**

all Courseware purchased before 6/25/2003. See <http://www.guruguides.com> for details.

#### Section 1: Overview of HTML and HTTP

Web Clients and Servers  
Establishing a Connection  
What's in a URL?  
HTML: The Language of the Web  
A Basic HTML Page  
HTML Tags  
An Overview of HTTP  
HTTP: The Web's Protocol  
Sending Parameters  
The HTTP GET  
The HTTP POST  
How Does HTTP Impact Me?  
Overview of the MVC Architecture

#### Section 2: Tomcat Installation and Configuration

Installing and Running Tomcat  
Setting up Your Environment

#### Section 3: Web Applications

Building A Web Application  
Web Application Structure  
web.xml  
Packaging Web Applications

#### Section 4: Servlets

The Need For Servlets  
Alternatives to Servlets  
The Servlet Container  
Required Packages  
Interfaces and Classes  
Interface javax.servlet.Servlet  
javax.servlet.ServletConfig  
javax.servlet.GenericServlet  
javax.servlet.http.HttpServlet  
A Basic Servlet  
Mapping Servlets in web.xml  
Executing the Servlet  
The Servlet Life Cycle  
The Request/Response Cycle  
service(), doGet() and doPost()  
Passing Parameters to a Servlet  
Retrieving Data from the Browser  
Cooperative Servlets

#### Section 5: Communication between Servlets

The ServletContext  
The Request Dispatcher  
Request.getRequestDispatcher()  
ServletContext.getRequestDispatcher()  
Includes  
Forwards  
Redirects  
Http Error Codes

#### Section 6: Sessions and Cookies

Cookie Overview  
Persistence of Cookies  
Viewing Cookies  
javax.servlet.http.Cookie  
Setting Persistent Cookies  
How Cookies are Sent  
Retrieving a Cookie

#### Section 7: Sessions

The Need For Sessions  
How Sessions Work  
javax.servlet.http.HttpSession

#### Section 8: Sharing Data Among Servlets

Scope  
The Request  
The Session  
The ServletContext

#### Section 9: JavaServer Pages

Overview of JSPs  
JSPs as Servlets  
JSP Tags  
Expressions  
Scriptlets  
Directives  
Declarations  
Comments

#### Section 10: JSP Actions

include  
forward  
Implicit JSP Objects  
request  
response  
out  
session  
exception

#### Section 11: JSP Custom Tags

A Simple Custom Tag  
Tag Library Descriptors  
Implementing the Tag  
Including the tag in a JSP  
Custom Tag Attributes  
Reading Custom Tag Attributes  
Body Tags [ Overview ]  
Iterative Tags [ Overview ]  
Lab: Creating a Custom Tag

#### Section 12: Introduction to Struts

Overview of Struts  
History and Purpose  
Acquiring Struts

#### Section 13: Struts Installation and Configuration

The struts-template webapp  
The Struts Tag Libraries  
struts.jar  
struts-config.xml  
index.jsp: A Simple Example  
ApplicationResources.properties  
Lab: Internationalized Messages with Struts

#### Section 14: Struts from a Distance

A JSP Form  
ActionForms  
Actions  
Mappings and struts-config.xml  
Forwards  
Lab: A Struts Login Form Part I

#### Section 15: Struts html tags

base html tags  
images  
forms  
links

#### Section 16: Errors and Messages

ActionErrors  
Action Messages  
Forwarding or Errors  
Displaying Errors in a JSP  
Displaying Individual Errors  
Lab: A Struts Login Form Part II

#### Section 17: Form Validation

Validating Forms  
Validation Strategies  
Lab: A Struts Login Form Part III  
Putting it All Together  
Lab: A Simple Task Manager

#### Section 18: Struts logic tags

logic:present and logic:notPresent  
Value Comparisons and Substring Matching  
logic:iterate  
Forwards and Redirects  
Lab: Redirects and Iterations [ Task Manager Cont. ]

#### Section 19: Struts bean tags

jsp:useBean  
bean:define  
bean:write  
Cookies and Headers  
Accessing Web Application Resources  
Messages  
Displaying Nested Properties

#### Section 20: URLs, Parameters and Links

Adding Parameters to links  
Strategies for Actions  
URL Extensions and Configuration  
Lab: Displaying Task Details [ Task Manager Cont. ]

#### Section 21: File Uploads with Struts

Uploading a File  
File Validation  
Saving the File  
Lab: Uploading and Displaying Images

#### Section 22: Tiles