

Training: Capstone Courseware  
112 Introduction to JSP

## TRAINING TERMS

2025-06-12 | 2 days | Virtual Classroom

## TRAINING GOALS:

Version 2.0.2

This two-day module introduces **JavaServer Pages**, or **JSP**, which is the standard means of authoring dynamic content for Web applications under the Java Enterprise platform. The module begins with an introduction of Web applications in general, shows how Java servlets and JSPs establish a framework for writing **Web applications**, and then covers JSP 2.0 features in detail, from scripting elements to use of dedicated JavaBeans to JSP expressions, and quick introductions of JSTL and custom tag development.

By the end of the module students will be able to create their own JSP applications, including interactive applications using HTML forms and pages that perform fairly complex processing using scripts and or actions. Although scripting is covered, the scriptless authoring style encouraged by the JSP 2.0 specification is emphasized, and students will be well equipped to develop concise and effective JSP applications.

## CONSPECT:

- Chapter 1. Web Applications
  - The World Wide Web
  - HTML
  - Web Servers
  - HTTP
  - Dynamic Web Pages
  - CGI
  - Java Web Technologies
  - Servlets
  - JSP
- Chapter 2. JSP Architecture
  - JSP Containers

- Servlet Architecture
- Page Translation
- Types of JSP Content
- Directives
- Content Type
- Buffering
- Scripting Elements
- JSP Expressions
- Standard Actions
- Custom Actions and JSTL
- Objects and Scopes
- Implicit Objects
- JSP Lifecycle
- Chapter 3. Scripting Elements
  - Translation of Template Content
  - Scriptlets
  - Expressions
  - Declarations
  - Dos and Don'ts
  - Implicit Objects for Scriptlets
  - The request Object
  - The response Object
  - The out Object
- Chapter 4. Interactive JSP Applications
  - HTML Forms
  - Reading CGI Parameters
  - JSPs and Java Classes
  - Error Handling
  - Session Management
  - The Session API
  - Cookies and JSP
- Chapter 5. Using JavaBeans
  - Separating Presentation and Business Logic
  - JSP Actions
  - JavaBeans
  - Working with Properties

- and
- Using Form Parameters with Beans
- Objects and Scopes
- Working with Vectors
- Chapter 6. The Expression Language and the JSTL
  - Going Scriptless
  - The JSP Expression Language
  - EL Syntax
  - Type Coercion
  - Error Handling
  - Implicit Objects for EL
  - The JSP Standard Tag Library
  - Role of JSTL
  - The Core Actions
  - Using Beans with JSTL
  - The Formatting Actions
  - Scripts vs. EL/JSTL
- Chapter 7. Advanced JSP Features
  - Web Components
  - Forwarding
  - Inclusion
  - Passing Parameters
  - Custom Tag Libraries
  - Tag Library Architecture
  - Implementing in Java or JSP
  - Threads
  - Strategies for Thread Safety
  - XML and JSP
  - JSP for Web Services

## REQUIREMENTS:

- Knowledge of HTML and background in **Web applications** will be helpful but is not strictly necessary. Deep Java experience is not required, but some familiarity with the language is recommended for some of the exercises.

## Difficulty level



## CERTIFICATE:

The participants will obtain certificates signed by Capstone Courseware.

## TRAINER:

Authorized Capstone Courseware Trainer.