

Web Component Development with Servlets & JSPs, Java EE 6

Duration: 0 Days

What you will learn

This Web Component Development with Servlets & JSPs, Java EE 6 training teaches experienced developers of Java technology applications the knowledge and skills to quickly build web applications suited to any Java EE 6 application server using JSP and servlet technologies. Participating in lab exercises gives you experience constructing and deploying the small-to-medium scale web applications found in intranet and low-volume commercial sites.

Learn To:

- Describe web applications, CGI, and the role of Java.
- Understand the Java EE 6 technology.
- Develop JSP pages.
- Implement an MVC Design.
- Understand the servlet lifecycle.
- Describe and implement four authentication models.
- Implement asynchronous servlets using the facilities of Java EE 6.
- Configure a JSP to use tags from the JSTL.
- Understand the role of AJAX-style client side programming.

Benefits to You

By taking this course, you'll be exposed to the current methods for analyzing, designing, developing and deploying web applications with Java technologies. This course is also an excellent method of preparing to take the Oracle Certified Professional, Java Platform, Enterprise Edition 6 JavaServer Pages and Servlet Developer certification examination.

Students Who Can Benefit from this Course

Java Developers creating web components (such as servlets and custom tags), Java Developers preparing for the Oracle Certified Professional, Java Platform, Enterprise Edition 6 JavaServer Pages and Servlet Developer examination.

Audience
Developer

Related Training

Required Prerequisites

Integrate existing Java code (for example, reuse existing classes created by other team members)

Design Java technology applications

Functionally describe the benefits of an n-tier architecture

Write Java technology applications, demonstrating significant programming ability

Suggested Prerequisites

Object-Oriented Analysis and Design Using UML

Write a web page using HTML

Course Objectives

Write servlets using the Java programming language (Java servlets)

Create robust web applications using MVC architecture

session management

filters

and database integration

Write JSP pages

Create easy to maintain view components using JSP pages

the Expression Language

and elements of the JSP Standard Tag Library (JSTL)

Create secure web applications using the features of the Java EE web container

Course Topics

Introduction to Java Servlets

- Describe web applications, CGI, and the role of Java
- Describe benefits of Java servlet technology
- Create a simple Java Servlet
- Define three-tier architecture
- Define Model-View-Controller (MVC) architecture

Introduction to Java Server Pages

- Describe why Servlets are not the whole solution
- Describe essentials of JSPs
- Understand the fundamentals and reasons for MVC architecture

Implementing an MVC Design

- Code a controller using a servlet
- Code a view using a JSP
- Forward control from a servlet to a JSP
- Understand fundamentals of EL
- Implement a simple MVC system

The servlet's environment

- Understand more details of the HTTP protocol
- Understand fundamentals of HTML forms
- Understand fundamentals of the HttpServlet and related APIs
- Write code that manages client sessions and cookies

Container facilities for servlets and JSPs

- Understand the purpose and structure of deployment descriptors
- Control context root and servlet mapping
- Create and use context and init parameters
- Use annotations to configure servlets

More view facilities

- Understand the four data scopes
- Understand and use EL dot ".", and array access "[" operators with Java Beans, arrays, and collections
- Understand and use EL implicit objects
- Create and use arithmetic expressions in EL
- Identify the need for iteration and selection in the view, and use JSTL tags to address those needs

Developing JSP pages

- Understand the origins, benefits, and weaknesses of JSPs
- Describe JSP technology, the conversion of JSPs to servlets, and the lifecycle of JSPs
- Understand JSP scripting elements, declarations and directives
- Use JSP implicit variables
- Understand and use jsp: tags

Developing JSP pages using custom tags

- Relate the JSTL to common job roles in web application development and understand the use of tags in JSP developer
- Recognize correct syntax for tags
- Configure a JSP to use tags from the JSTL
- Write JSP code using several standard tags
- List capabilities of JSTL tags

More Controller facilities

Understand the servlet lifecycle

Describe and use more advanced elements of the servlet APIs

Create filters and use them in web applications

More options for the Model

Understand the roles of JDBC and JPA

Understand the many elements that make up the model

Understand fundamentals of connecting to a database using JDBC or JPA

Asynchronous web applications

Understand the interactions that are essential to asynchronous web pages

Understand the role of AJAX-style client side programming

Implement asynchronous servlets using the facilities of Java EE 6

Web application security

Understand the role of the container in security

Describe and implement four authentication models

Force the use of encryption between a web application and the client browser

Understand the role of JAAS in pluggable/extensible authentication for web applications