Web Component Development with Servlets & JSPs, Java EE 6

Duration: 5 Days

What you will learn

JavaServer Pages(TM) (JSP(TM) page) technology and servlets are the key web-tier technologies defined in the Java(TM) Platform, Enterprise Edition (Java EE platform). The Web Component Development With Servlet and JSP(TM) Technologies, Java EE6 course provides 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. Students are exposed to the current methods for analyzing, designing, developing, and deploying web applications with Java technologies. Lab exercises provide students with experience in constructing and deploying the small-to-medium scale web applications found in intranet and low-volume commercial sites. The course features the Java EE 6 technology, and uses the Java EE 6 SDK and the Glassfish Application Server. The students perform the lab exercises using the NetBeans (TM) Integrated Development Environment (IDE). This course is also an excellent method of preparing for 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

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Audience
J2EE Developer
Java Developer
Java EE Developer

Related Training

Required Prerequisites

Write Java technology applications, demonstrating significant programming ability

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

Java Programming Language, Java SE 6

Suggested Prerequisites
Object-Oriented Analysis and Design Using UML

Write a web page using HTML

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 developmer
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

Related Courses

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