J-JSF
Developing Web Applications using JSF Technologies

What you will learn
JavaServer™ Faces technology, the server-side component framework designed to simplify the development of user interfaces for Java EE applications, has been simplified and improved, especially in the area of page authoring. Facelets is a powerful but lightweight page declaration language to design JavaServer Faces views using HTML style templates and to build component trees. Facelets also enables code reuse through templating and can significantly reduce the time to develop and deploy user interfaces. Included in Java EE 6, the JSF 2.0 standard further simplifies the web application development.

The Developing Web Applications Using JSF Technologies course provides an in-depth introduction to the JSF 2.0 technology. Students perform the course lab exercises using the NetBeans IDE and the GlassFish Application Server v3. This course supports Oracle Certified Professional, Java Platform and Enterprise Edition 6 JavaServer Faces Developer.

Students who can benefit from this course Java developers responsible for developing and deploying JavaServer Faces (JSF) based web applications.

Java developers pursuing the Oracle Certified Professional, Java Platform, Enterprise Edition 6 JavaServer Faces Developer examination.

Learn To:
Design JavaServer Faces (JSF) web applications
Develop JSF pages, page templates, custom and composite components using Facelets
Develop managed beans
Process data conversion and validation
Handle events in JSF web applications
Create message bundles and localize JSF web applications
Application Developers
Developer
Java Developer
Java EE Developer

Related Training

Required Prerequisites
Have a good understanding of the Java Programming Language
Understand the fundamentals of web applications and HTTP protocol
Java Programming Language, Java SE 6

Suggested Prerequisites
Object-Oriented Analysis and Design Using UML

Course Objectives
- Configure JSF within the Web Container
- Design views using JSF and EL
- Design custom components using Facelets
- Design and develop the model using JavaBeans or Pojos
- Integrate external resources such as JPA within Web Application
- Integrate navigation flow/ redirection
- Design web applications using standard architectures, protocols, technologies and components
- Integrate models and views using events
- Validate application data
- Application data conversion
• Identify, Capture, and Resolve Errors
• Test, package and deploy applications
• Implement templates
• Use Ajax with JSF

Course Topics

Getting Started with JavaServer Faces
List common requirements for web applications
Describe the JSF Web Application framework
Describe the architecture of the JSF Web Applications
Describe the development view of a JSF Application
Walk through a simple JSF web application
Review the lifecycle of a JSF application
Create and deploy a simple JSF web application

Designing JSF Pages Using Facelets
Describe the hierarchy of UI components
Evaluate the structure of JSF pages
List the tag libraries supported in Facelets
Describe the JSF Core Tag Library
Describe the HTML RenderKit Tag Library
List common attributes of the HTML tags
Use common UI components to design Facelets pages

Developing Managed Beans
Use JSR-299: Context and Dependency Injection (CDI) annotation
Declare managed beans using annotations
Bind UI Components with Managed Beans
Use managed bean scopes, including Flash
Use the Unified Expression Language (EL)
Use the faces-config.xml Configuration File
Configure beans in the faces-config.xml file

Working with Navigation
Use static and dynamic navigation
Define implicit navigation in JSF pages
Configure navigation rules and cases
Describe the navigation evaluation process
Create a bookmarkable view

Creating Message Bundles
Create a message bundle for multiple languages
Use a message bundle
Localize an application

Using JSF Templates
Use the JSF Facelets Tag Library
Create a template and apply it to multiple pages
Describe how to use a decorator
Use the debugging feature built into JSF

Converting and Validating Data
Describe the data conversion and validation process
Use standard data converters and validators
Configure default validators
Develop and use custom converters and validators
Work with data conversion and validation error messages
Use Bean Validation (JSR-303)
Working with Data Tables
Use a Data Table component
Use column headers, footers and captions
Apply styles to Data Table elements
Customize a data table with a scroll bar
Enhance a data table with a sort table class

Handling Events
Describe the JSF Event Model
Use action and value Change Events
Register event listeners
Describe JSF lifecycle events
List the Event model enhancements in JSF 2.0

Developing Composite Component and Using Ajax
Describe the concept of composite UI components
List the elements of a composite component
Design and implement a composite component
Attach validators to a composite component
Use the Facelets AJAX tag to perform field validation

Configuring and Deploying JSF Applications
Describe JSF Web application stages
Configure the state maintenance method
Describe the application configuration loading process
Install and upgrade JSF implementation for a web container
Deploy JSF web applications to the web container
Configure security for JSF Web Applications