



JSF (Java Server Faces) Course Content: 35-40 hours

Course Outline

What is JSF?

- Getting Started
- The UI Component Model
- The Request Processing Lifecycle
- State saving of component tree
- A Simple JSF Demo
- Adding a value expression to a command button.
- Adding the required attribute and <h:message../> tag.
- Adding a validator.
- Adding a converter.
- Revisiting the jsf request processing lifecycle (analyzing in detail).
- Restore View.
- Apply Request Values.
- Process Validations
- Update Model Values.

Invoke Application.

- Render Response.
- Revisiting UIComponent Model.
- Accessing UIComponents programmatically.
- Revisiting Converters and Validators:
- Implicit Converters.
- Explicit Converters.
- DateTime Converter Attributes.
- Number Converter Attributes.
- The lifetime of a converter.
- Custom Converters.
- Validators:
- The "required:true" facility.
- Creating Custom Validators.
- The Validation Phase in Detail.
- Internationalization/Localization (i18n/L10n)
- Using Resource Bundles.



- Declaring the supported locales for the application.
- Understanding FacesMessage.
- Overriding the default messages of validators.
- Localizing error messages of custom validators and converters.

Understanding Managed Beans:

- What are Managed Beans.
- Initializing Managed Beans Properties.
- Initializing properties of the type List and Map.
- Declaring Lists/Maps directly as Managed Beans.
- Managed Bean Interdependence.
- Managed Bean scopes.
- Understanding the JSF Event Model:
- JSF Event Classes.
- JSF Event Listener Interfaces.
- Short-circuiting the JSF Request Processing Lifecycle.
- When are Faces Events Processed.

Immediate Events.

- Anatomy of an Action Event.
- Anatomy of a ValueChange Event.
- Writing Custom Action-Listener and ValueChange-Listener.
- The binding attribute.
- Phase Events and Listeners.
- Understanding the JSF Navigation Model:
- Static Navigation.
- Dynamic Navigation.
- Using wildcards.
- Using redirects.
- Understanding the JSF Expression Language:
- Implicit Objects.
- EL operators.
- Exploring the HTML tag library:
- Text Fields and Text Areas.
- h:inputText
- h:inputSecret (input type=password)
- h:inputTextarea
- Displaying Text and Images
- h:outputLabel (label)
- h:outputText (span)
- h:outputFormat (for parameterized messages)
- h:graphicImage (img)



- Buttons and Links
- h:commandButton (input type=button)
- h:commandLink (anchor that fires a submit on click)
- h:outputLink (anchor with href)
- Selection Tags
- Checkboxes and Radio Buttons
- h:selectBooleanCheckbox
- h:selectManyCheckbox (checkboxes with same name)
- h:selectOneRadio (layout:pagedirection/linedirection)

Menus and Listboxes

- h:selectOneListbox (select : list)
- h:selectManyListbox (select : list, with multi-select)

- h:selectOneMenu (combo-box)
- h:selectManyMenu (use arrow keys to navigate)
- f:selectItems value attribute
- Panels.
- h:panelGrid
- h:panelGroup
- Data Tables
- h:dataTable
- Editing Table Cells
- Database Tables
- Creating Custom Components:
- Analyzing parts of a component and creating our custom component.
- Creating a basic custom component.
- Creating a custom component with attributes and using a converter.
- Ajax and JSF:
- What is ajax.
- Learning the methods and properties of the XmlHttpRequest object.
- Using classic ajax with a jsf application by using a servlet.
- Refactoring the same application by replacing servlet with ajax4jsf tags.

