

This intensive, hands-on, two-day course teaches Java web developers how to create JavaServer Faces (JSF) 2.0 based web applications. After a quick introduction to the technology, students will learn how to create managed beans and how to use the JSF Core and HTML tag libraries to generate dynamic HTML content. They will then learn the JSF lifecycle and how to trigger server-side event handler code. Next, students will learn how to use the Data table component to easily display large amounts of data in an HTML table. The course continues with coverage of validation and conversion, including customization of these phases. Finally, students will learn how to use the JSF 2.0 Ajax capabilities.

Course Objectives:

- Build a JSF component tree with Core and HTML tag libraries.
- Create JavaBeans with properties and methods that are bound to JSF components.
- Use both Action Events and Value Change Events to react to user interface interactions.
- Use the data table component to present tabular information.
- Write your own validators and converters to ensure the legality of user input.
- Use the <f:ajax> tag to send an asynchronous request to the server.

Audience: Web developers who want to efficiently create complex web applications with JSF 2.0.

Prerequisites: Java programming experience is required. Servlet and JSP experience is recommended. Familiarity with HTML is recommended.

Number of Days: 2 days

<p>1 Course Introduction Course Objectives Course Overview Using the Workbook Suggested References</p> <p>2 Getting Started with JSF GUI Development JavaServer Faces A JSF Application JSF Components Managed Beans JSF Application Structure Running the Application</p> <p>3 Managed Beans Managed Beans and MVC Properties Managed Bean Annotations Bean Scope Annotations Value Expressions Method Expressions</p>	<p>4 JSF Tag Libraries The JSF Component Tree JSF Tag Libraries Resources Forms Input Tags Output Tags Submitting Form Data with HTTP Post View Parameters Passing Data with HTTP Get Checkboxes Radio Buttons, Listboxes, and Menus Panels</p> <p>5 JSF Lifecycle and Event Handling JSF Lifecycle Overview Restore View Phase Apply Request Values Phase Process Validation Phase Update Model Values Phase Invoke Application Phase</p>
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Render Response Phase

JSF Events

Action Events

Value Change Events

Immediate Events

6 **Data Table Component**

Data Tables

Basic Structure

Facets

Styles

Adding Editable Components

DataModel

Sorting

Scrolling

7 **Validators and Converters**

Validation and Conversion within the
JSF Lifecycle

Converting Dates

Converting Numbers

Displaying Conversion Errors

Built-In Validators

Customizing Error Messages

Writing Your Own Converter

Custom Converter Configuration

Writing Your Own Validator

8 **Ajax**

Ajax and JSF

Events

Execute and Render

Grouping

Validation

The onevent Attribute

The onerror Attribute

The listener Attribute

9 **Appendix A – Internationalization**

I18N and L10N

Resource Bundles

Configuring a Resource Bundle

Using a Resource Bundle

Specifying the Locale

I18N in Custom Code

Dates and Numbers

10 **Appendix B – faces-config.xml**

Navigation

Navigating Through a JSF Application

Basic Navigation Configuration

From View Id

From Action

Forward vs. Redirect