

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.

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

**Prerequisites:** *Java Programming, Java Web Programming*, and familiarity with HTML.

**Number of Days:** 2 days

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| <p><b>1. Course Introduction</b><br/>Course Objectives<br/>Course Overview<br/>Using the Workbook<br/>Suggested Reference</p> <p><b>2. Getting Started with JSF</b><br/>GUI Development<br/>JavaServer Faces<br/>A JSF Application<br/>JSF Components<br/>Managed Beans<br/>JSF Application Structure<br/>Running the Application</p> <p><b>3. Managed Beans</b><br/>Managed Beans and MVC<br/>Properties<br/>Managed Bean Annotations<br/>Bean Scope Annotations<br/>Value Expressions<br/>Method Expressions</p> <p><b>4. JSF Tag Libraries</b><br/>The JSF Component Tree<br/>JSF Tag Libraries<br/>Resources<br/>Forms<br/>Input Tags<br/>Output Tags<br/>Submitting Form Data with HTTP Post<br/>View Parameters<br/>Passing Data with HTTP Get</p> | <p>Checkboxes<br/>Radio Buttons, Listboxes, and<br/>Menus<br/>Panels</p> <p><b>5. JSF Lifecycle and Event Handling</b><br/>JSF Lifecycle Overview<br/>Restore View Phase<br/>Apply Request Values Phase<br/>Process Validation Phase<br/>Update Model Values Phase<br/>Invoke Application Phase<br/>Render Response Phase<br/>JSF Events<br/>Action Events<br/>Value Change Events<br/>Immediate Events</p> <p><b>6. Data Table Component</b><br/>Data Tables<br/>Basic Structure<br/>Facets<br/>Styles<br/>Adding Editable Components<br/>DataModel<br/>Sorting<br/>Scrolling</p> <p><b>7. Validators and Converters</b><br/>Validation and Conversion<br/>within the JSF Lifecycle<br/>Converting Dates</p> |
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- 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

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**Appendix A – Internationalization**

- I18NandL10N
- 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