# Java EE 6: Develop Web Applications with JSF

#### Introducing JavaServer Faces (JSF) Technology

- List common requirements for web applications
- Describe the JavaServer Faces (JSF) framework
- Describe the architecture of JSF web applications
- Describe the development view of a JSF application
- Walk through a simple JSF web application
- Review the life cycle of a JSF application
- Create, deploy, and run a simple JSF application

#### **Creating 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 HTML render kit tag library
- List common attributes of the HTML tags
- Describe the JSF core tag library
- Use common UI components to design Facelets pages

### **Developing CDI Named Beans**

- Define a managed bean
- Use the JSR-299: Context and Dependency Injection (CDI) annotations
- Bind UI components with CDI beans
- Use the unified Expression Language (EL)
- Use the faces-config.xml configuration file
- Use CDI bean scopes

### **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 and Adding Message Bundles**

- Create a message bundle for multiple languages
- Use a message bundle to simplify localization
- Localize an application

## **Using JSF Templates**

- Create a template and apply it to multiple pages
- Describe how to use a decorator
- Use debugging to identify issues

### **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
- Add a pager component to the table.

#### **Handling Events**

- Describe the JSF Event Model
- Use action and value Change Events
- Register event listeners
- Capture and respond to lifecycle events

#### **Using AJAX and Composite Components with JSF**

- Define Asynchronous JavaScript and XML (AJAX)
- Describe how JSF Components can be enhanced with AJAX
- Use the tag
- Describe how AJAX request integrates with the JSF
- Define a composite component
- Create a JSF composite component

#### **Creating Custom Components**

- Choose when to use custom component
- Choose when to use a custom renderer
- List the steps for creating a custom component

## Working with HTML5 and JSF 2.0

- Examine HTML 5 features
- Leverage HTML 5 JavaScript APIs
- Develop JSF 2.0 Composite Components With HTML 5

## **Configuring and Securing JSF Applications**

- Describe JSF Web application stages
- Configure the state maintenance method
- Describe the application configuration loading process
- Describe container managed security
- Declare user roles and responsibilities
- Configure security for JSF Web Applications
- Use the security API

## **Using Third Party Library for JSF Development**

- List the third party libraries available
- Examine and apply the PrimeFaces library
- Examine the Trinidad library
- Configure and apply Trinidad library
- Develop Mobile ready web applications with Trinidad