

JB170 JBoss: SEAM Essentials

Course Summary

Description

This course covers the JBoss Seam framework and various core features such as context, conversation, component essentials, events and error handling, jBPM, administration & configuration with JBoss application server and Tomcat web server, Facelets, JSF & EJB3 essentials, Rich client applications, security, as well as new and exciting features in the JBoss Seam framework.

Topics

- JBoss Seam Introduction
- Review of Enterprise JavaBeans 3.0 Component Framework - (Optional Module)
- Review of JavaServer Faces Framework and Facelets - (Optional Module)
- JBoss Seam Tooling and Projects
- JBoss Seam Component Model
- JBoss Seam Context Model

Audience

This course is targeted toward Java developers constructing enterprise and next-generation Web 2.0 applications wanting to become more proficient and productive during development using JBoss Seam, the lightweight JEE (Java EE 5) application framework.

Prerequisites

Students should have a solid background in Java programming. The JB167 Hibernate Essentials course or equally comparable Hibernate/JPA experience is required. Students must be familiar with the JEE (Java EE 5) Specification, the Enterprise JavaBeans 3 Specification, and the Persistence Framework (JPA). Students also should have a sound understanding of web and/or application servers (e.g. Tomcat or JBoss).

Duration

Three days

JB170 JBoss: SEAM Essentials

Course Outline

I. JBoss Seam Introduction

- A. JBoss Seam Framework's features and benefits
- B. Architectural Overview
- C. Relationship to Enterprise JavaBeans 3.0, JavaServer Faces
- D. Components, Servlets, and Common Annotations and the Java specification
- E. JavaEE with/without JBoss Seam illustrated
- F. JBoss Seam bi-jection overview
- G. JBoss Seam Annotations Overview
- H. JBoss Seam component & contextual model overview

II. Review of Enterprise JavaBeans 3.0 Component Framework - (Optional Module)

- A. EJB3.0 Architecture Overview
- B. EJB3.0 SessionBeans
- C. Client Views for SessionBeans
- D. Entities and Java Persistence API (JPA)

III. Review of JavaServer Faces Framework and Facelets - (Optional Module)

- A. Overview of JSF & Installation
- B. JSF within JavaServer Pages
- C. Managed Beans and Page navigation
- D. Context data management in Beans
- E. Using message bundles
- F. Facelets technology overview

IV. JBoss Seam Tooling and Projects

- A. Project installation, configuration with RedHat Developer Studio
- B. Top-down, bottom-up, command-line tooling for RAD using Seam-Gen

V. JBoss Seam Component Model

- A. Component interception
- B. Built-In components
- C. JBoss Seam Bi-jection

VI. JBoss Seam Context Model

- A. Fundamental JBoss Seam Contexts
- B. Declarative context model
- C. Stateful context
- D. Granularity
- E. JBoss Seam Application Framework
- F. Declarative Context model implementation
- G. Built-in components
- H. JBoss Seam Events, Exceptions & Interceptors
 - I. Seam-defined events
 - J. Exception management
 - K. JBoss Seam Interceptors
 - L. JBoss Seam Testing Framework
 - M. Automated testing
 - N. Testing tools
 - O. TestNG
 - P. Integration and Unit testing
 - Q. JBoss Seam Advance Features Overview
 - R. Pageflows & Drools Support
 - S. Remoting
 - T. RichFaces
 - U. Spring Framework
 - V. Web Services
 - W. AJAX Support
 - X. GWT
 - Y. Security
 - Z. Groovy
 - AA. Hibernate Search