JB225 Red Hat JBoss Enterprise Application Development I

Course Summary

Description

Create, test, and maintain Java EE-compliant applications from start to finish. This course is Intended for mid-level Java™ developers, JBoss® Enterprise Application Development (JB225) introduces you to Java EE 6 frameworks, specifications, and application programming interfaces (APIs).

Create, test, maintain Java EE-compliant applications.
Learn how to create, test, and maintain Java EE-compliant applications from start to finish using the Eclipse-based Red Hat® JBoss Developer Studio.

Create a fully functional enterprise Java application.
Comprehensive lectures and extensive use-case, hands-on labs introduce you to enterprise application development using Red Hat JBoss Enterprise Application Platform 6, Contexts and Dependency I, Arquillian, JBoss Hibernate®, RESTEasy, HornetQ, and other related technologies to create a fully functional enterprise Java application.

Build a complete, multitier enterprise application
Learn how to build a complete, multitier enterprise application featuring a JavaServer Faces (JSF) 2 web-based front end, a Java API for Restful Web Services (JAX-RS) layer, an Enterprise JavaBeans (EJB) layer, and a Java Persistence API (JPA) persistence layer, leveraging best-practice design, coding, and testing techniques.

Objectives
At the end of this course, students will be able to:

- Build robust enterprise applications using JBoss middleware.
- Build secure enterprise applications.
- Integrate applications with back-end enterprise information and messaging systems.
- Test with Arquillian.
- Use Contexts and Dependency Injection (CDI) for seamless multitier applications.
- Understand administration tasks for developers.
- Leverage JBoss Developer Studio

Topics

- Developer administration tasks for Red Hat JBoss Enterprise Application Platform 6
- Introduction to Red Hat JBoss Developer Studio
- Contexts and Dependency Injection
- Testing
- Session beans

- Web Services
- Messaging
- Persistence
- Web-based UI
- Security
- Packaging and deployment

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Course Summary (cont'd)

Audience

- Students with Java programming experience who want to enter enterprise Java development
- Experienced enterprise Java developers who are migrating to JBoss for the first time
- Experienced enterprise Java developers who want to upgrade their skill set using Java EE 6 and the latest Red Hat JBoss Enterprise Application Platform and Red Hat JBoss Developer Studio versions
- Students who want to use the class to help them prepare for the Red Hat Certified JBoss Developer (RHCJD) Exam (EX225)

Prerequisites

- Fluency in the Java programming language (Java SE 5 or 6), particularly annotations and object-oriented design
- Ability to read HTML and XML documents
- Basic experience with an integrated development environment (IDE) like Eclipse
- Basic knowledge of Asynchronous JavaScript + XML (Ajax) and Relational Database Management Systems (RDBMSs) is recommended but not required

Duration

Four days

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Course Outline

I. Developer administration tasks for Red Hat JBoss Enterprise Application Platform 6

   A.   Use the new Red Hat® JBoss® Enterprise Application Platform 6 administration interfaces and deployment models.

II. Introduction to Red Hat JBoss Developer Studio

   A.   Leverage Red Hat JBoss Developer Studio tools to control servers and manage projects.

III. Contexts and Dependency Injection

   A.   Build CDI-enabled applications.

IV. Testing

   A.   Test applications using JUnit and Arquillian.

V. Session beans

   A.   Implement business logic using EJB.

VI. Web Services

   A.   Use JBoss Enterprise Application Platform implementations for JAX-WS support with RESTEasy and Simple Object Access Protocol (SOAP) to build web services.

VII.   Messaging

   A.   Use HornetQ to add asynchronous messaging to enterprise components and develop message-driven beans.

VIII.   Persistence

   A.   Persist data with JPA and Hibernate®.

IX. Web-based UI

   A.   Create a rich web UI using JSF 2 and RichFaces.

X. Security

   A.   Secure applications using JBoss Enterprise Application Platform 6 and application security.

XI. Packaging and deployment

   A.   Understand deployment options for application packages built with JBoss Developer Studio for a variety of middleware servers.