GogoTraining™
Leader in IT & Management Training

7561 E. Gold Dust Ave
Scottsdale, AZ 85258
1-877-546-4446
www.gogotraining.com

Java Development with JBoss Application Server
Training Course Outline

Course Description:

This Java developer training course teaches students how to use JBoss to implement an application server according to the Java 2 Enterprise Edition (J2EE) standard. *Java Development with JBoss Application Server* training provides a broad overview of JBoss' features and capabilities, highlighting integration with databases, security, customization and integration with Java. Our Java development training class balances instruction with hands-on exercises to confirm mastery of the concepts covered in each module.

Note: Interested in learning to program in Java? See our Java Developer Training Program.

Course Objectives:

As a result of taking this Java developer training, you will be able to:
- Explain the purpose, benefits and features of an application server.
- Perform installation and basic customization of the JBoss application server.
- Install, configure and deploy Java J2EE applications in a JBoss application server.
- Configure application-specific security within a JBoss application server.
- Expose application functionality as web services from within a JBoss application server.
- Integrate your JDBC-compliant database of choice with a JBoss application server.

Course Prerequisites:

One year of prior hands-on experience with Java programming. Previous experience with developing Enterprise Java Beans (EJBs).

Modular Outline:

Module 00: Java Development with JBoss Application Server - Course Introduction

Module 01: Introduction and Getting Started
- What do Application Servers Do?
- Review of J2EE Terminology Used by JBoss
- Downloading JBoss
- Installing JBoss
- Starting the JBoss Application Server
- Stopping the JBoss Application Server
- Running JBoss as a Service
- Exercise: Installation and Initial Configuration of JBoss

Module 02: Going Under the Hood of JBoss Part 1
- Application Server Structure

- Key Application Server Directories
- Application Server Configurations

Module 03: Going Under the Hood of JBoss Part 2
- Basic Configuration Issues
- Core Services (logging, security)
- Additional Services
- Application Server Web Container (Tomcat)
- Exercise: Performing Basic Configuration of JBoss
- Exercise: Exploring Web Server Containers in JBoss

Module 04: Using J2EE Applications in JBoss
- Reviewing the J2EE Tutorial
- Deployment Descriptors and Their User
- Configuring Deployment Descriptors for JBoss
- Configuring Database Changes for JBoss
- Configuring Security for JBoss
- J2EE in the Real World
- Exercise: Modifying a J2EE Application to Work under JBoss

Module 05: Building an Application for JBoss From the Ground Up Part 1
- Obtaining the Application Files
- Compiling the Java Source
- Packaging the EJBs
- Packaging the WAR File
- Packaging the Java Client
- Assembling the EAR File
- Exercise: Preparing Initial Assembly of JBoss Application

Module 06: Building an Application for JBoss From the Ground Up Part 2
- Deciding upon Database Connectivity
- Enabling TCP/IP Communications and Appropriate MBean
- Creating and Viewing the Schema
- JNDI and Java Clients
- Deploying the Application
- Exercise: Developing Database Connectivity
- Exercise: Deploying the Application

Module 07: Security within JBoss
- Security at an Individual Application Level
- Security at the Application Server (JBoss) Level
- Configuring a Security Domain (users.properties; roles.properties)
- Repackaging the Secured EJBs
- Reassembling the Secured EAR

- Re-deploying the Secured EAR
- Exercise: Securing the Application

Module 08: Security and the J2EE Security Module
- Authentication
- Authorization (Access Control)
- Using the JMX Console to View Application JNDI Information
- Exercise: Exploring J2EE Security in our Application

Module 09: JMS (Java Messaging Service) and Message Driven Beans
- Message Driven Beans and their Role in J2EE
- Reviewing the Message-Driven-Bean Example
- Compiling and Packaging the Message-Driven Bean
- Compiling and Packaging the Message-Driven Bean's Client
- Specifying the Source Queue for the Message-Driven Bean
- Deploying and Running the Message-Driven-Bean Server
- Deploying and Running the Message-Driven-Bean Client
- Managing JMS Destinations through jbossmq-destinations-service.xml
- Administering Destinations
- Exercise: JBoss and Message Driving Beans

Module 10: Container-Managed Persistence (CMP)
- Introduction
- How CMP Frees Each Bean From Having To Know When To Save Itself
- Review of CMP Example
- Compiling Code
- Packaging JARs
- Deploying and Running the server
- Deploying and Running the Client
- Customizing CMP
- Exercise: Exploring Container-Managed Persistence (CMP)

Module 11: JBoss and Web Services
- Introduction to JBoss.net
- Configuring a Deployed Application to Act as a
- Web Service Web Service Archive (WSR) file
- Building and Deploying the WSR File
- Running the Web Service Client
- Performing Net Traffic Analysis

Module 12: JBoss and Other Databases
- DataSource Configuration
- JDBC-Wrapper Resource Adapters
- DataSource Configuration Files
- Exercise: Using MySQL and Oracle 10g as Alternative Back-End Databases

Module 13: JBoss Security Configuration
- Security Using a Database
- Security Using Password Hashing
- Viewing Bean Statistics Data in the Web Admin Console
- Exercise: Exploring JBoss Security Configuration

Module 14: Java Development with JBoss Application Server Online Training - Course Summary