

JBoss Application Server v4 Administration

Duration: 5 days

Course Description

This course teaches the basics of the deployment and administration of web applications to a JBoss Application Server V4 environment, and concentrates on providing best-practice solutions to handle common problems that occur in a JBoss environment.

You Can Learn to:

- Install JBoss Application Server
- Install and configure J2EE applications
- Use various tools to solve several types of problems
- Configure various application resources and JBoss Security
- Modify logging properties of JBoss Application Server
- Administer the environment using the web-based Admin Console or command line tools
- Monitor JBoss performance
- Use various techniques to create a more robust environment and avoid common problems
- Maintain a cluster of JBoss Application Servers

Who Needs to Attend:

Webmasters and System Administrators who install, configure, and maintain J2EE Applications on JBoss Application Server V4.

Prerequisites:

Familiarity with basic Windows operational skills like running commands from a command prompt and networking. Although not required, familiarity with web-based applications, web servers, and Java is suggested.

Course Labs

- Lab1 Install Java
- Lab2 JBoss Application Server Installation
- Lab3 Manage Configuration from JBoss Eclipse IDE
- Lab4 Deploy a Simple Application to JBoss
- Lab5 Build Application from JBoss IDE
- Lab6 JBoss Logging
- Lab7 Connect to External Database
- Lab8 Use JNDI References
- Lab9 Configure JBoss Security
- Lab10 Manage JBoss Messaging
- Lab11 Monitor JBoss
- Lab12 Observe Default Cluster Behavior
- Lab13 Establish Standalone Cluster
- Lab14 Change JGroups Protocol
- Lab15 Clustered Deployment
- Lab16 Configure Apache Web Server for Clustering
- Lab17 Modify Application to Support Clustering
- Lab18 Deploy Clustered JMS Application

Course Content

- JBoss Introduction.**
 - JBoss Family, Application Server, Portal and BPM
 - Hibernate
- Installing JBoss**
 - JBoss Installation, Admin Consoles, and Configurations
- Managing JBoss Configurations**
 - JBoss IDE Tips, XML in JBoss IDE
 - Controlling JBoss Servers
 - Managing JBoss Configuration
- J2EE Overview**
 - JBoss Configurations
 - Perspectives and Views
 - Updating JBoss Version
- Building and Installing Applications**
 - J2EE Deployment Descriptors, Ant
 - JBoss Deployment Descriptors, Application Deployment
 - Deployment from JBoss IDE
- Introduction to Online Banking Software**
 - OnlineStore Functions
- JBoss Logging**
 - Configuring Log4j in JBoss
 - Log Categories
 - Adjusting Logging from the Consoles
- JMX Microkernel**
 - JMX Intro
 - JBoss XBeans and JMX Microkernel
- Connecting JBoss to Database**
 - JDBC Driver
 - Data Source Architecture
 - Types of JBoss Data Sources
 - Configure Data Source
- JNDI & Naming Services**
 - Naming Service
 - Objects in Namespace
 - JNDI Binding in JBoss
- JBoss Security**
 - Authentication and Authorization
 - J2EE Security Roles
 - JBoss Security Domain
 - Using a Database for Authentication
 - Using an LDAP Server
 - SSL (Secure Sockets Layer)
- JBoss JMS Messaging**
 - Messaging Components and types
 - JMS (Java Messaging Service)
 - JBossMQ
 - Configuring JMS and Security
- Monitoring JBoss**
 - JBoss Web Console
 - Live Graphs and Snapshots
 - Monitor Configuration
- Web Services**
 - Web Service Security
 - JAX-RPC Service Endpoints
 - EJB Endpoints
 - JBoss Configuration Files
 - Web Service References
- Overview of Clustered Environment**
 - Horizontal and Vertical Scaling
 - Clustering in JBoss
- JGroups Network Communication**
 - Introduction to JGroups , JGroups Layering
 - Group Coordinator
 - Joining the Group
 - Transport and Failure Detection Protocols
- Clustered Deployment**
 - Regular Deployment
 - HA-Singleton Deployment
 - Farming Deployment
 - Issues of Farm Deployment
- Load Balancing with Apache and mod_jk**
 - Using Apache with Tomcat
 - Adding, Loading, Configure, and Load Balancing mod_jk Module
- Distributed Applications**
 - JBossCache
 - Configuring Tomcat for HTTP Session Replication
 - Utilizing Session Replication
 - Clustering Stateless Session Beans (EJB 2.x), and Stateful Session Beans, Clustering Entity Beans (EJB 2.x)
- Clustered Services**
 - Clustered JNDI Services and JMS Services
 - HA-JNDI Clients
 - Access HA-JNDI in Java Code
 - Access HA-JNDI by Modifying jndi.properties File
 - HA-JNDI With EJBs
 - HA-JMS and HA-JNDI
 - MDB EJBs and HA-JMS
- Rolling out JBoss to Production**
 - Removing Hypersonic
 - Configuring JBoss with Firewalls
 - Setting a Root Web Application
- JBoss 4.2**
 - Network Binding Behavior
 - Steps to Java EE 5
 - EJB3 in JBoss 4.2
 - Web Services in JBoss 4.2
 - Minor Differences
- JBoss Operations Network**
 - JBoss Operations Network
 - JBoss ON Architecture, Server, and Console
 - Supported Platforms
 - Dashboard