

WebLogic Server Administration

Duration: 5 days

Course Description

This course teaches the basics of the administration and deployment of Web applications in BEA WebLogic Server.

You Can Learn to:

- Understand WebLogic architecture
- Understand deployments of EJB and Web applications
- Understand how to run WebLogic as a Web server
- Set up WebLogic Server test environments for developers
- Start/stop servers, problem detection and trouble shooting
- Use clustering for fault tolerance and load balancing
- Configure and monitor resources in a production environment
- Conduct security planning and implementation
- Handle large throughput and concurrency
- Understand performance tuning .

Who Needs to Attend:

Project managers, Web server application assemblers, Web server administrators, decoyers, developers and consultants who want to gain the knowledge of WebLogic Server administration.

Prerequisites:

Fair understanding of network management and protocols, and of Relational Database Management.

Course Labs

1. Installing the WebLogic Server
2. Setting Up the Environment
3. Creating a WebLogic Server Domain
4. Exploring WLST
5. Examining Log Files
6. Configuring the Web Server
7. Creating a Virtual Host
8. Building a Simple WAR and EAR File
9. Deploying and Un-deploying Applications
10. Creating a Data Source
11. Deploying a JDBC Driven Application
12. Configuring JMS
13. Using the Node Manager
14. Securing an Application using WebLogic Security
15. Building a WebLogic Cluster
16. Building an Advanced Cluster

Course Content

9. **WebLogic Server and J2EE Architecture**
 - J2EE architecture, N-tier architecture
 - General Terminologies for WebLogic Server
 - WebLogic Server architecture

1. **WebLogic Server Administration Overview**

- Administrator Responsibilities
- Administration using SNMP-based and JMX-based framework.
- Weblogic Configuration, Monitoring, logging, Service, and Security
- J2EE Deployments in Weblogic
- Using WebLogic for Transaction management
- Several Tuning Principals using Weblogic

2. **Domains, Machines and Servers Configuration and Monitoring**

- Configure domain, domain logging and applications, and servers

3. **Security Management in WebLogic**

- Security Manager Set up in Weblogic
- Creation of Security realm
- Password protection
- Install an audit provider
- Define access control and permission
- Configure the SSL protocol
- Install a connection filter

4. **Use WebLogic Server as a Web Server**

- Use HTTP Server logs
- Set up standard MIME type
- Set up WebLogic for HTTP requests
- Set up session management

5. **WebLogic Server Deployments**

- Application assembly basics
- Configured deployment
- Application format and directory structure
- Auto deployment
- Hot deployment
- EJB deployment
- Enterprise application deployment

6. **JNDI**

- JNDI basics and context
- Object lookup using JNDI
- Monitoring JNDI tree
- JNDI in data source, JMS, and EJB deployment

7. **WebLogic Server Transaction Management**

- Configure WebLogic transactions
- WebLogic Server transaction support
- Monitor and logging transactions

9. **Create, Configure and Monitor JDBC Services**

- Overview
- JDBC connection and transaction
- JDBC data sources
- JDBC drivers
- JDBC connection pools

10. **Create, Configure and Monitor JMS Services**

- MOM Technology with respect to JMS
- Creating JMS domains
- Creating JMS connection factories
- Creating JMS servers, JMS queues and JMS topics

11. **Clustering in WebLogic Server**

- How clusters work
- The Architecture of Cluster and Cluster configuration and planning
- Cluster configuration tasks
- The Administration of a Cluster

12. **WebLogic Server Performance Tuning**

- JVM tuning
- Operating system tuning
- WebLogic server tuning
- WebLogic client tuning
- Performance analysis tools

13. **The Node Manager**

- The Architecture of a Node Manager
- The Functionality of a Node Manager
- Configuring and Setting up of the Node Manager
- Tracking and Logging of the Node Manager

14. **SOA and Web Services Support in WebLogic Server**

- The need for a web services
- The General Standards and Architecture for Web Services Support
- Web Service Components in WebLogic
- The role of SOAP, UDDI and WSDL
- The Administration of WebLogic's Web Services