

Oracle WebLogic Server 11g: Advanced Administration

Duration: 5 Days

What you will learn

Oracle WebLogic Server is a Java EE application environment that supports the deployment of mission critical applications using a robust, secure and scalable infrastructure. System administration of WebLogic Server includes a wide range of activities, from creating and configuring server domains, to deploying and securing applications, to monitoring and troubleshooting server, application and performance issues.

In this course, students expand upon their basic administrative knowledge and experience, and learn more sophisticated techniques for working with WebLogic Server and integrating it within the rest of their enterprise. Particular attention is paid to the topics of authentication, enterprise messaging, clustering and performance. This course also covers some basic techniques for monitoring server health and for troubleshooting problems. Students continue to use tools such as the WebLogic Server Administration Console and WebLogic Server Scripting Tool (WLST) for performing these administration tasks.

An appendix is included covering the differences between the 11g (10.3.3) and 12c (12.1.1) product versions with regard to Oracle WebLogic Server administration topics.

Learn To:

- Manage domains and templates
- Configure a highly available messaging infrastructure
- Automate server migration and failover
- Utilize LDAP for authentication
- Monitor servers using WLDF or SNMP

This course is an upgrade of Oracle WebLogic Server 10g R3: Advanced System Administration.

Audience

- Administrator
- Security Administrators
- Support Engineer
- Technical Administrator
- Technical Consultant
- Web Administrator

Prerequisites

Required Prerequisites

- Experience with basic Linux administration and shell commands

Course Objectives

- Configure and monitor server network channels
- Define a JDBC data source for load balancing and failover
- Configure JMS to guarantee message delivery

- Configure JMS load balancing and failover in a cluster
- Configure JMS store and forward features
- Create custom domain and extension templates
- Bridge WebLogic JMS to an external JMS provider
- Configure automatic server migration in a cluster
- Replicate HTTP sessions using multiple clusters
- Integrate WebLogic Server with an external LDAP server
- Integrate WebLogic Server with a database security store
- Tune a Java VM for performance
- Tune server subsystems for performance
- Define server work managers
- Apply techniques to diagnose and troubleshoot server problems
- Trigger SNMP notifications from WebLogic Server

Course Topics

Installation Management

- Smart Update
- Patch Management

Domain Templates

- Domain Templates
- Extension Templates
- Template Builder

Other Domain Tools

- WLST and Templates
- Pack Tool
- Configuration Backup
- Configuration Auditing

Advanced Network Configuration

- Network Channels
- Administration Channels
- Standby Mode

Multi Data Sources

- Data Source Failover
- Data Source Load Balancing
- Connection Testing
- WebLogic and RAC

JDBC Performance Essentials

- Connection Pooling
- Statement Caching
- Last Logging Resource

JMS Message Management

- Viewing Messages
- Exporting Messages
- Pausing Destinations

JMS Guaranteed Messaging

Persistent Stores

Durable Subscribers

JMS Performance Essentials

Quotas

Thresholds

Unit of Order

JMS Store and Forward

SAF Agents

SAF Contexts

SAF Imported Destinations

JMS Message Bridge

Bridge Adapters

Bridge Destinations

Quality of Service

Server Migration

Cluster Leasing

Candidate Machines

JMS Clustering

JMS Cluster Targeting

Service Migration

Migratable Targets

Distributed Destinations

JMS Load Balancing

Cross-Cluster Replication

MAN Replication

WAN Replication

Authentication Providers

Security Realms

Security Stores

Control Flags

LDAP Authenticators

SQL Authenticator

Password Validation

Security Migration

Server Performance Essentials

Load Testing

JVM Tuning

Heap Monitoring

Work Managers

Monitoring and Diagnostics Essentials

Runtime MBeans

Diagnostics Framework

Metric Collectors
Watches
Instrumentation
WebLogic and SNMP
Trap Monitors