

Oracle WebLogic Server 11g: Diagnostics and Troubleshooting

Duration: 4 Days

What you will learn

This Oracle WebLogic Server 11g: Diagnostics and Troubleshooting training helps experienced Oracle WebLogic Server administrators identify typical problems and trains them on the appropriate methodology and tools for solving each problem. As part of this process, you'll develop a rich knowledge of WebLogic's internal subsystems, including work managers, JDBC, JMS, security, SSL and clusters.

Learn To:

Develop custom scripts to monitor servers.

Use the capabilities of the WebLogic diagnostics framework.

Interpret log messages for WebLogic subsystems.

Monitor and analyze virtual machine statistics.

Troubleshoot security and cluster issues.

Troubleshoot JDBC and JMS problems.

More about WebLogic Server

WebLogic Server offers a seemingly endless list of capabilities for hosting enterprise services and applications; however, with this complexity come opportunities for problems, both while testing and in production. Luckily, WebLogic Server includes a wealth of tools to help monitor, profile and troubleshoot its various subsystems. The WebLogic Diagnostics Framework (WLDF), the WebLogic Scripting Tool (WLST) and JRockit Mission Control are three such tools.

Appendix

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.

Related Training

Required Prerequisites

Experience with Oracle WebLogic Server

Experience with basic Linux administration and shell commands

Oracle WebLogic Server 11g: Administration Essentials

Suggested Prerequisites

Oracle WebLogic Server 11g: Advanced Administration

Course Objectives

Troubleshoot the WebLogic node manager

Explain the capabilities of the WebLogic diagnostics framework

Analyze a domain configuration using Guardian

Monitor servers using the WebLogic scripting tool

Configure and interpret verbose logging for WebLogic subsystems

Configure diagnostic collectors and notifications

Associate diagnostic monitors with custom applications

Monitor and analyze resource utilization with JRockit Mission Control

Troubleshoot virtual machine

application server and cluster issues

Troubleshoot JDBC

JMS and SSL problems

Troubleshoot the WebLogic security realm

Course Topics

WLST Monitoring

- MBean Hierarchies
- Jython Syntax
- WLST Commands

Guardian

- Agents
- Signatures
- Evaluations

Diagnostic Framework Essentials

- Diagnostic Images
- Diagnostic Archives
- Metric Collectors
- Watches
- Notifications
- Console Extension
- Debug Scopes

Diagnostic Instrumentation

- Monitors
- Actions
- Deployment Plans
- Pointcuts
- Request Tracking
- Context ID
- Dyes

JVM Diagnostics

- Memory Management
- Garbage Collection
- Memory Leaks
- Thread Dumps
- JVisualVM
- JRockit Mission Control
- Runtime Analyzer
- Memory Leak Detector

Troubleshooting Java Applications

- Classpath Errors
- Class Loaders
- Common Java Errors

Troubleshooting Servers

- Native Libraries
- Threading Architecture
- Work Managers
- Deadlocks
- Overload Protection
- Deployment Problems

Troubleshooting JDBC

- Data Source Management
- Diagnostics
- Debug Flags
- Connectivity Problems
- Connection Leaks
- Database Availability

Troubleshooting JMS

- Management
- MBean Hierarchy
- Message Logging
- Diagnostics
- Debug Flags
- Overload Protection
- Lost Messages
- Duplicate Messages

Troubleshooting Security

- SSL Internals
- Keystore Management
- Debug Flags
- Common SSL Problems
- Certificate Validation
- Embedded LDAP
- Security Audit
- Common LDAP Problems

Troubleshooting Node Manager

- Internals
- Security
- Common Issues

Troubleshooting Clusters

- Plug-in Configuration
- OHS Overview
- Plug-in Connectivity
- Plug-in Diagnostics
- Unicast Communication
- Replication Debug Flags
- Typical Replication Issues