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WebLogic Administrator Training

3 days (21 hours)

Overview

Oracle WebLogic is a Java EE-based middleware platform for hosting enterprise applications. It manages data access, security, scalability and high availability, while integrating with supervision and automation systems.

Our WebLogic Administrator training course will enable you to install, configure and administer domains, optimize performance, ensure resilience and automate your deployments (WLST, WDT, CI/CD). You'll learn how to strengthen security (TLS, Secured Production Mode, SSO), manage clustering and deploy on Kubernetes via Operator.

At the end of the course, you'll be able to manage a scalable, secure and observable WebLogic platform, from patching to upgrades.

Like all our training courses, this one is based on the latest stable release and its new features, WebLogic 14.1.2.

Objectives

- Install and configure a production-ready WebLogic domain
- Administer clusters, JDBC/JMS, security and logging
- Automate with WLST/WDT and integrate into a CI/CD chain
- Deploy and operate on Kubernetes with Operator
- Implement diagnostics, tuning and patching without interruption

Target audience

- Advanced WebLogic Administrators
- Systems and middleware administrators
- DevOps/Platform teams in charge of Java EE/Jakarta EE runs

Prerequisites

- Mastery of Linux and notions of system administration
- Knowledge of Java/Jakarta EE and JDBC/JMS basics
- Previous WebLogic experience (advanced level)

Program - WebLogic Administrator

WebLogic architecture and domain design

- Oracle WebLogic Server overview: elements of a domain, AdminServer vs. Managed Server
- Install structures and trees (WL_HOME, DOMAIN_HOME), development/production modes
- Basic services: JTA, JMS, JDBC, JNDI, Classloading
- Node Manager: process supervision, secure start/stop
- Isolation strategies: multi-domain, multi-tenancy, prod/preprod separation

Installation, domain creation and tooling

- JDK prerequisites and compatibility matrices, install options (generic/quick/slim)
- Domain creation: Configuration Wizard, WLST offline, reusable templates
- Secure startup: boot identity, environment variables, start/stop scripts
- Admin Console vs. WLST online management, administration roles
- Packaging environments: templates, pack/unpack, industrialization

Fundamental resources: JDBC, JMS and basic security

- JDBC: Data Sources, Multi Data Source, GridLink RAC, connection testing
- JMS: servers, modules, connection factories, quotas, persistence and store
- Security: Security Realms, users/groups, policies & roles
- Logging: log rotation, log diagnostics, SIEM integration
- Workshop: Setting up a complete domain (JDBC/JMS) with access controls and logs

Clustering, high availability and balancing

- Cluster topologies (unicast, cross-domain), network channels, ports
- HTTP and EJB session replication, service migration and JTA recovery
- Load balancing: Oracle HTTP Server, NGINX, mod_wl/load balancer
- Resilience: node failures, rolling restart, failover tests

- Stateful/stateless and affinity best practices

Performance and diagnostics

- Work Managers, thread pools, Stuck Threads and timeouts
- JDBC connection pooling: sizing, leak detection, validation
- WLDF (policies, watches), JFR/JMX, exportable metrics
- GC/JVM analysis, heap/metaspace, common prod flags
- Reading thread dumps and heap dumps, investigation methodology

Advanced administration: WLST, WDT and automation

- WLST online: introspection, idempotent scripts, Python libraries
- WebLogic Deploy Tooling (WDT): templates, discover/create/updateDomain
- REST administration API and Ansible/Terraform integration
- Config industrialization: naming conventions, validation, script review
- Workshop: Automating domain creation/update with WLST & WDT

Advanced security and compliance

- SSL/TLS: keystores, ciphers, mutual TLS, hostname verification
- Secured Production Mode, console/WLST security, port/service hardening
- OIDC/SAML2: SSO, authentication providers, Authorization Providers
- JMS/JDBC protection, network partitioning, auditing and traceability
- Secret management: safe, KMS, rotation and revocation

Containers, Kubernetes and CI/CD

- Runtime images via WebLogic Image Tool (WIT), JDK base & CPU/PSU patches
- Deployment with WebLogic Kubernetes Operator (manifests, Domain CRD, persistence)
- Jenkins/GitLab pipelines: build, scan, blue/green/rolling deployments
- Observability: WLDF, Exporter, Prometheus/Grafana integrations
- OCI/OKE and multi-cloud recommendations

Maintenance, patching and upgrades

- PSU/CPU and OPatch policy, maintenance window strategy

- Zero-downtime: rolling patch, controlled migration, non-regression testing
- Upgrade to recent versions, Jakarta EE compatibility, reconfiguration
- Backup/restore: domains, JMS stores, transaction logs
- Workshop: Perform controlled patching followed by domain upgrade with validation

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced IT technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the forthcoming course, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical training: 60% hands-on, 40% theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Certification

A certificate will be awarded to each trainee who has completed the entire course.