Oracle WebLogic Server 12c
Certified Implementation Specialist
Exam Study Guide
Getting Started

The Oracle WebLogic Server 12c Certified Implementation Specialist Exam Study Guide is designed to help you prepare for the Oracle WebLogic Server 12c Implementation Specialist certification (1Z0-599).

Earning this certification helps OPN members differentiate in the marketplace through proven in-depth expertise, and helps their partner company qualify for the Oracle WebLogic Server 12c Specialization.

Target Audience

Oracle WebLogic Server 12c Certified Implementation Specialist exam audience defines the type of participants who are likely to pass the exam and targets individuals with a specific level of education and expertise:

*Job Role:*
- Fusion Middleware/Java EE Architects
- Technical Consultants
- WebLogic Administrators
- System Administrators

*Level of Competency:*
- System Administrator/Implementation Specialist
- Technical Consultants who can install, design, configure, deploy, administer, troubleshoot and maintain WebLogic Server systems.
- Up-to-date WebLogic Server 12c product training is strongly recommended.

Exam Topics

Oracle WebLogic Server 12c Certified Implementation Specialist Exam covers **nine topics:**

- Cloud Application Foundation (CAF) Fundamentals
- WebLogic Server Fundamentals
- Deploy Java Enterprise Edition (EE) Applications
- WebLogic Server Management
- WebLogic Server Advanced Topics
- WebLogic Server System Architecture
- WebLogic Server Implementation Best Practices
- WebLogic Server Patching and Upgrading with SmartUpdate
- Integrate Enterprise Manager and WebLogic Server
Levels of Knowledge

Each exam topic contains objectives and each objective is categorized by learner or practitioner level of knowledge.

**Learner** items test foundational grasp and require product comprehension (not recognition or memorization).

Example:

“When setting up price list modifiers in Advanced Pricing, which three steps must be completed in order to successfully activate surcharge and price break features?”

**Practitioner** items present on-the-job scenarios and require the ability to: integrate and apply knowledge in new contexts, analyze and troubleshoot complex issues, and solve problems.

Example:

1) “You are creating price list modifiers in Advanced Pricing. Your customer has three requirements: X, Y, Z. Identify the two steps that must be completed in order to meet those requirements.

2) “You are running a two-instance database with six redo logs defined. You decide to add a third thread to support a third database instance, on the third node of the cluster.

Using command line administration, which two commands will you execute to achieve this?

Training Options

Throughout the study guide each exam topic recommends one or several training formats:

- **OPN Boot Camps**
- **Online Training**
- **Oracle University Training**

While the Oracle PartnerNetwork facilitates free access to online training, in class trainings often require a fee.
Exam Details per Topic

This section covers details associated to all exam topics such as: exam topics overview, objectives, levels of knowledge, recommended trainings and sample questions. Specialization exams include all application functionalities not only the most frequently used ones.

**Topic 1: Cloud Application Foundation (CAF) Fundamentals**

**Objective**

- Describe Cloud Application Foundation concepts
- Identify components of WebLogic Suite
- Identify differences between WebLogic Server (WLS) SE, EE & Suite
- Describe the problem domain of Coherence with WLS
- Describe Oracle Cloud Computing business drivers
- Describe Virtual Assembly Builder Studio features
- Describe supported and custom Appliances for Virtual Assemblies
- Describe ActiveCache (WLS and Coherence)

**Level**

- Learner

**Recommended Training**

Instructor-Led Training
- Oracle Cloud Application Foundation Implementation Boot Camp
- Oracle WebLogic Server 12c Implementation Boot Camp

Online Training
- WebLogic Server 12c, Cloud Application Foundation for Oracle Partners
- Introducing WebLogic Server 12c

**Documentation**

- Getting Started with Oracle WebLogic Server 12c: Developer's Guide Ch. 1

**Sample Questions**

Which four service offerings are included in Oracle Public Cloud?

- Database Service
- Data Service
- Java Service
- Security Service
- .NET Service
- SOA Service
Oracle Coherence is best classified as _____?

- A Database Product
- **A Middleware Product**
- An Object Relational Mapping (ORM) Tool
- A Soft Load Balancer
- An Application Product
Topic 2: WebLogic Server Fundamentals

Objective

- Describe the different WLS distributions that are available
- Describe Enterprise Grid Messaging
- Describe Active GridLink for Real Application Cluster (RAC) features
- Explain WLS Domain concepts
- Install WLS
- Create and use WLS Domain Templates
- Automate WLS administration tasks with WebLogic Scripting Tool (WLST)
- Secure WLS resources and applications
- Configure and use WLS Work Managers, Contexts and Constraints
- Create and target JDBC Connection Pools
- Create and target JMS Distributed Queues
- Create and target JMS Distributed Topics
- Configure and use WebLogic Diagnostic Framework (WLDF)
- Configure and use JRockit Flight Recorder and WLDF integration

Level

- Learner
- Practitioner

Recommended Training

Instructor-Led Training

- Oracle WebLogic Server 12c: Administration I
- Oracle WebLogic Server 12c: Administration II
- Oracle WebLogic Server 12c Implementation Boot Camp
- Oracle WebLogic Server 12c: JMS Administration

Online Training

- Oracle WebLogic Server 12c Solution Overview
- What's New in Oracle WebLogic Server 12c Part 1
- What's New in Oracle WebLogic Server 12c Part 2
- WebLogic Server 12c Product Area Features and Functions for Technical Individuals

Documentation

- Introducing WebLogic Server 12c
- Oracle WebLogic Server
- Oracle® Fusion Middleware Getting Started With Installation for Oracle WebLogic Server 12c Release 1 (12.1.1)
Oracle® Fusion Middleware Installation Guide for Oracle WebLogic Server 12c Release 1 (12.1.1)
Oracle® Fusion Middleware Installation Guide for Oracle WebLogic Server 12c Release 1
Oracle® Fusion Middleware Understanding Oracle WebLogic Server 12c Release 1
Oracle® Fusion Middleware What's New in Oracle WebLogic Server 12c Release 1
Oracle® Fusion Middleware Understanding Domain Configuration for Oracle WebLogic Server 12c Release 1
Oracle® Fusion Middleware Oracle WebLogic Scripting Tool 12c Release 1
Oracle® Fusion Middleware Configuring and Managing JMS for Oracle WebLogic Server 12c Release 1
Oracle WebLogic Server Active GridLink for Oracle Real Application Clusters (PDF)
Oracle WebLogic Server 12c Administration Handbook

Sample Questions

To use Active Cache features in WebLogic 12c, which three libraries are needed from the WebLogic Server installation to be deployed in WebLogic Server?

- coherence-work.jar
- coherence.jar
- active-cache-1.0.jar
- coherence-web-spi.war
Topic 3: Deploy Java Enterprise Edition (EE) Applications

Objective

- Describe Java EE 6 and Developer Productivity features
- Describe Java Integrated Development Environments (IDE) support
- Describe Maven integration features
- Describe Java SE packaging
- Describe the structure and parts of a Java web application
- Describe the structure and parts of a Java enterprise application
- Deploy Java EE applications to WLS
- Deploy Java EE applications using a Deployment Plan
- Deploy WLS shared libraries and associate them with applications
- Deploy applications using the WLS Administration Port and Side by Side Deployment
- Use the Continuous Integration (CI) and Build Tools that WLS supports (ANT, Maven, etc.)
- Enable and use WLS Fast Swap for Rapid Redeployment
- Troubleshoot classloading conflicts with the ClassLoader Analysis Tool
- Describe WLS Spring Support and how Spring can utilize WLS features
- Secure Java EE applications

Level

- Learner
- Practitioner

Recommended Training

Instructor-Led Training

- Developing Applications with Java EE 6 on WebLogic Server 12c
- Java EE 6: Develop Web Components with Servlets & JSPs
- Developing Applications for the Java EE 6 Platform
- Java EE 6 Hands-on Lab

Documentation

- Getting Started with Oracle WebLogic Server 12c: Developer's Guide Ch. 3, 8 & 11
- Oracle® Fusion Middleware Deploying Applications to Oracle WebLogic Server 12c Release 1
- Oracle® Fusion Middleware Developing Applications for Oracle WebLogic Server 12c Release 1
### Sample Questions

<table>
<thead>
<tr>
<th>For real time event processing, which three clients can you use?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Java</td>
</tr>
<tr>
<td>- C++</td>
</tr>
<tr>
<td>- .NET</td>
</tr>
<tr>
<td>- REST</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Which four steps are involved to use Active Cache Dependency Injection in a WebLogic Java EE application?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Deploy Active Cache shared library</td>
</tr>
<tr>
<td>- Declare dependency on the shared library</td>
</tr>
<tr>
<td>- Declare all dependency injection entries</td>
</tr>
<tr>
<td>- Package tangosol-coherence-override.xml in modules classpath</td>
</tr>
<tr>
<td>- Package coherence-cache-config.xml in modules classpath</td>
</tr>
</tbody>
</table>
**Topic 4: WebLogic Server Management**

### Objective

<table>
<thead>
<tr>
<th>Objective</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use JRockit Mission Control to monitor WLS at runtime</td>
<td>Practitioner</td>
</tr>
<tr>
<td>Use JRockit Mission Control to view JRockit Flight Recorder and WLDF data</td>
<td>Practitioner</td>
</tr>
<tr>
<td>Monitor and diagnose WLS for best performance</td>
<td>Practitioner</td>
</tr>
<tr>
<td>Use the WLS Admin Console to manage WLS</td>
<td>Practitioner</td>
</tr>
<tr>
<td>Start and stop WLS instances using the Node Manager</td>
<td>Practitioner</td>
</tr>
</tbody>
</table>

### Recommended Training

**Instructor-Led Training**

- [Oracle WebLogic Server 12c: Administration I](#)
- [Oracle WebLogic Server 12c: Administration II](#)
- [Oracle WebLogic Server 12c Implementation Boot Camp](#)

**Online Training**

- [Setting up and running Oracle JRockit](#)
- [Understanding Oracle Enterprise Manager Cloud Control 12c and WLS Management Pack EE](#)

**Documentation**

- [Oracle® Fusion Middleware Managing Server Startup and Shutdown for Oracle WebLogic Server 12c Release 1](#)
- [Oracle® Fusion Middleware Extending the Administration Console for Oracle WebLogic Server 12c Release 1](#)
- [Administration Console Online Help](#)
- [Oracle® Fusion Middleware Node Manager Administrator's Guide for Oracle WebLogic Server 12c Release 1](#)
- [Oracle WebLogic Server 12c: Distinctive Recipes: Architecture, Development and Administration](#) Ch. 18, 30 & 31

### Sample Questions

Which product has guaranteed messaging and transactional integrity for 100% reliability, over 25 years of use in the world's largest transaction applications?

- Coherence
- Tuxedo
- JRockit
- WebLogic Server
Topic 5: WebLogic Server Advanced Topics

Objective

- Describe the value that WLS offers above an EE container
- Describe JDBC
- Describe WLS Distributed JMS
- Describe WLS Clustering
- Use Scripting with WLS
- Use Automation options for WLS
- Describe Remote Procedure Calls (RPC) & Web Services Standards supported by WLS
- Describe Web Session and XA Affinity features of Active GridLink
- Configure WLS to store Transaction Logs in a Database
- Configure systems for High Availability
- Configure and use advanced JMS features: Store and Forward
- Configure and use advanced JMS features: Unit of Order (UOO) and Unit of Work (UOW)
- Configure and use TopLink Grid - Java Persistence API (JPA) and Coherence
- Configure systems for ease of Disaster Recovery
- Configure and use ActiveCache (WLS and Coherence)
- Implement High Availability (HA) in WLS with Service and Server Migration

Level

Learner
- Use Scripting with WLS
- Use Automation options for WLS
- Describe Remote Procedure Calls (RPC) & Web Services Standards supported by WLS
- Describe Web Session and XA Affinity features of Active GridLink
- Configure WLS to store Transaction Logs in a Database
- Configure systems for High Availability
- Configure and use advanced JMS features: Store and Forward
- Configure and use advanced JMS features: Unit of Order (UOO) and Unit of Work (UOW)

Practitioner
- Configure and use TopLink Grid - Java Persistence API (JPA) and Coherence
- Configure systems for ease of Disaster Recovery
- Configure and use ActiveCache (WLS and Coherence)
- Implement High Availability (HA) in WLS with Service and Server Migration

Recommended Training

Instructor-Led Training

- Oracle WebLogic Server 12c: Administration I
- Oracle WebLogic Server 12c: Administration II
- Oracle WebLogic Server 12c Implementation Boot Camp
- Oracle WebLogic Server 12c: JMS Administration

Documentation

- Oracle® Fusion Middleware Configuring and Managing JDBC Data Sources for Oracle WebLogic Server 12c Release 1
- Oracle® Fusion Middleware Programming JDBC for Oracle WebLogic Server 12c Release 1
- Oracle® Fusion Middleware Programming JMS for Oracle WebLogic Server 12c Release 1
- Oracle® Fusion Middleware Configuring and Managing JMS for Oracle WebLogic Server 12c Release 1
- Oracle® Fusion Middleware Oracle WebLogic Scripting Tool 12c Release 1
- Oracle® Fusion Middleware Getting Started With JAX-RPC Web Services for Oracle WebLogic Server 12c Release 1
Sample Questions

Active Cache is the integration of Coherence and WebLogic Server. Which component is NOT part of this integration?

- Coherence*Web
- Coherence*Extend
- TopLink Grid with Coherence
- Coherence cluster lifecycle management in WebLogic Server
- Named cache dependency Injection
Topic 6: WebLogic Server System Architecture

Objective

- Design a scaled-out solution with WLS
- Architect a highly available WLS system
- Use proxy web server
- Use load balancer
- Design a WLS system for maximum uptime, availability and business continuity

Level

Practitioner

Recommended Training

Instructor-Led Training

- Oracle WebLogic Server 12c Implementation Boot Camp
- Oracle WebLogic Server 12c: Performance Tuning Workshop

Online Training

- Oracle WebLogic Server 12c System Architecture

Documentation

- Getting Started with Oracle WebLogic Server 12c: Developer's Guide Ch. 7
- Oracle WebLogic Server 12c: Distinctive Recipes: Architecture, Development and Administration CH. 2, 3 & 4

Sample Questions

What are four benefits of recommended basic architecture?

- Good load balancing between Presentation Tier and Object Tier
- Easy administration
- Flexible Load balancing
- Optimal performance
- Simple security
Topic 7: WebLogic Server Implementation Best Practices

Objective

- Create WLS system design considerations
- Create a WLS Domain using best practices
- Configure a WLS Cluster and Managed Servers using best practices
- Configure the JVM where WLS runs using best practices
- Configure JDBC Connection Pools using best practices
- Configure JMS using best practices
- Use Work Managers using best practices
- Install with Node Manager using best practices

Recommended Training

Instructor-Led Training

- Oracle WebLogic Server 12c Implementation Boot Camp
- Oracle WebLogic Server 12c: Performance Tuning Workshop

Online Training

- Oracle WebLogic Server 12c System Architecture

Documentation

- Getting Started with Oracle WebLogic Server 12c: Developer's Guide Ch. 7
- Oracle WebLogic Server 12c: Distinctive Recipes: Architecture, Development and Administration CH. 2, 3 & 4

Sample Questions

In WebLogic 10.3.6 and WebLogic 12c on ExaLogic, performance of JMS is further improved through _____ and ______.

- Web Session Affinity
- Concurrent Request Manager
- Coherence
- Elastic Message Overflow

WebLogic Node Manager can be used to manage the life cycle of WebLogic servers. WebLogic Node Manager is installed and started ______.

- Per Machine
- Per Domain
- Per Managed Server
- Per Admin Server
Topic 8: WebLogic Server Patching and Upgrading with SmartUpdate

Objective

- Describe how patches are applied to WLS  
  Level: Learner
- Apply a rolling patch strategy to a WLS Cluster to ensure maximum availability  
  Level: Practitioner
- Upgrade from WLS 10.3.3 to newer versions  
  Level: Practitioner
- Upgrade from Oracle Application Server (OC4J/OAS) to WLS  
  Level: Practitioner
- Describe Oracle offerings for upgrading from non-Oracle platforms to WLS  
  Level: Learner

Recommended Training

Online Training

- [Oracle WebLogic Server 12c Implementation Boot Camp](#)
- [WebLogic Server Patching & Upgrading using SmartUpdate](#)

Documentation

- [Applying Patches to Oracle WebLogic Server](#)
- [Oracle® Fusion Middleware Upgrade Guide for Oracle WebLogic Server 12c Release 1](#)
- [Oracle Fusion Middleware Supported System Configurations](#)

Sample Questions

What type of Java EE application can be upgraded to WebLogic 12c using the Smart Upgrade tool?

- GlassFish
- iAS
- WebLogic Server 11g
- JBoss
Topic 9: Integrate Enterprise Manager and WebLogic Server

Objective

- Integrate Enterprise Manager with WLS
- Explain how to position WebLogic Management Pack EE
- Describe Real Operation Automation
- Describe Real Operation Insight
- Use Enterprise Manager Lifecycle Management for WLS
- Describe Enterprise Manager Real User Experience Insight
- Describe Enterprise Manager Business Transaction Management for WLS
- Describe Enterprise Manager Configuration Management for WLS

Recommended Training

Instructor-Led Training

- [Oracle WebLogic Server 12c Implementation Boot Camp](#)
- [Oracle WebLogic Server 12c: Enterprise Manager Management Pack](#)

Online Training

- [Understanding Oracle Enterprise Manager Cloud Control 12c and WLS Management Pack EE](#)

Documentation

- [WebLogic Server Management Pack EE Data Sheet](#)
- [Monitoring and Managing Oracle WebLogic Server](#)

Sample Questions

In the area of Performance Management and Diagnostics, which feature is supported in Oracle Enterprise Manager 12c?

- **Search information in logs across multiple domains**
- View different log information in single console location
- Save current performance data as baseline to be used in comparison with future data
- Provides single dashboard across multi-tier composite application

When a critical error occurs, which module in Enterprise Manager will automatically collect diagnostics data from WebLogic Server?

- Reports
Exam Registration Details

Full exam preparation details are available on the exam page Oracle WebLogic Server 12c Essentials (1Z0-599), including learning objectives, number of questions, time allowance, pricing and languages available.

The OPN Certified Specialist Exams appointments are available worldwide at Pearson VUE Testing Centers. Reservations can be made via phone or online.

Candidates must have an Oracle Web Account to access CertView and check their exam results. In order to have their certifications reflected on OPN Competency Center, both CertView and Pearson Vue accounts must be updated with the current OPN Company ID. Your Company ID can be obtained by contacting your local Oracle Partner Business Center or by signing in to your OPN account.

Additional Resources

- Oracle WebLogic Server Knowledge Zone
- OPN Guided Learning Paths & Assessments
- OPN Certified Specialist Exam Study Guides
- Enablement 2.0 Boot Camps