

Oracle WebLogic Server 12c Essentials

Oracle 1z0-599

Version Demo

Total Demo Questions: 12

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QUESTION NO: 1

A customer needs to analyze an application that was developed for Oracle Application Server 10gR2 or 10gR3 (OC4J) in order to prepare to upgrade the infrastructure to WebLogic 12c. The customer wants understand the changes required to be made to the application and how to configure WebLogic in to support the newly upgraded application.

Which three actions would you recommend for upgrading the customer's application and server configuration?

- A.** Use Oracle Upgrade Manager to create a new WebLogic domain template from an OAS/OC4J installation and redeploy the application.
- B.** Use SmartUpgrade to analyze the OAS/OC4J server configuration and create WebLogic configuration files.
- C.** Use SmartUpgrade to analyze the application archive (EAR/WAR/JAR) Source Directory or IDEveloper project and generate a report that describes the areas of the application that need to be updated.
- D.** Use the Configuration Wizard to extend an existing WebLogic domain with OAS/OC4J support libraries and redeploy the application.
- E.** Use SmartUpgrade to generate application artifacts and deployment descriptors that can be deployed to WebLogic.

ANSWER: B C E

Explanation:

SmartUpgrade is the appropriate assessment and migration-assistance tool for OC4J-based applications. It can analyze an Oracle Application Server/OC4J configuration and produce WebLogic-oriented configuration artifacts, giving the customer a structured starting point for recreating or adapting the required WebLogic Server configuration. This addresses the server-side part of the migration rather than merely moving an archive to a new runtime.

SmartUpgrade can also inspect application inputs, including application archives, source locations, and JDeveloper projects, and generate an advisory report. That report identifies application areas requiring attention before deployment on WebLogic Server, such as OC4J-specific configuration or APIs that need to be adapted. This analysis is essential because application portability is not guaranteed simply by packaging an application as an EAR, WAR, or JAR.

Finally, SmartUpgrade generates application artifacts and deployment descriptors suitable for use during deployment to WebLogic Server. These generated outputs complement the advisory findings and configuration artifacts, allowing the migration team to apply the required changes and prepare the application for its target environment. Oracle's upgrade documentation describes SmartUpgrade as an OC4J migration tool that analyzes applications and configurations and creates upgrade artifacts; see the [Oracle Fusion Middleware Upgrade Guide](#) and Oracle's [WebLogic Server documentation](#).

QUESTION NO: 2

You want to capture WebLogic internal events correlated with JVM events for viewing offline. What three actions must you take to enable this within WebLogic?

- A.** Run WebLogic in a JRockit JVM and ensure the Flight Recorder is enabled.
- B.** Configure the WebLogic Diagnostic Framework Event Volume to Low, Medium, or High depending on the type of events you want to capture.
- C.** Configure the WebLogic Diagnostic Framework bridge to send events to the JRockit Flight Recording.
- D.** Take a dump from the default recording or create a new recording for the time period you want to capture.

ANSWER: A B D

Explanation:

Running WebLogic Server on a JRockit JVM with Flight Recorder enabled supplies the JVM-level recording capability required to collect and preserve JVM events. WebLogic Diagnostic Framework integration then propagates WebLogic Server diagnostic events into the same Flight Recorder data set, allowing WebLogic activity and JVM behavior to be correlated during later analysis. The WebLogic Diagnostic Framework Event Volume must be configured to Low, Medium, or High

because this setting controls the scope of WebLogic diagnostic instrumentation and the amount of event data emitted. Selecting an appropriate volume balances the desired diagnostic detail with runtime overhead.

Finally, a recording must be captured for the relevant interval by dumping the default recording or creating and dumping a recording that covers the incident window. The resulting Flight Recorder recording can be viewed offline in JRockit Mission Control. WebLogic can also include Flight Recorder output in a diagnostic image when the relevant integration is enabled, supporting post-incident analysis with a shared set of WebLogic and JVM events. Oracle documents this WLDF and Flight Recorder integration in the [WebLogic Server Performance and Tuning guide](#) and describes Flight Recorder recording usage in the [JRockit Flight Recorder documentation](#).

QUESTION NO: 3

Oracle Coherence is best classified as _____?

- A. A Database Product
- B. A Middleware Product
- C. An Object Relational Mapping (ORM) Tool
- D. A Soft Load Balancer
- E. An Application Product

ANSWER: B

Explanation:

Oracle Coherence is best classified as **A Middleware Product**. Coherence is Oracle's in-memory data grid technology: it provides a distributed, clustered data-management layer that applications use to store, access, replicate, and process data in memory across multiple servers. Its core purpose is to improve application scalability, availability, and performance by distributing data and processing while insulating applications from many cluster-management concerns.

This role places Coherence in the middleware tier. It is designed to integrate with enterprise applications and application servers, including WebLogic Server, rather than serving as a standalone persistent database system. Coherence can be used as a distributed cache and can support data-grid patterns such as partitioned storage, replicated data, and near caching. It may work alongside systems of record, but its classification remains middleware because it supplies shared infrastructure services between application components and underlying data resources.

Oracle describes Coherence as an in-memory data grid and positions it within its middleware offerings. See Oracle's [Oracle Coherence overview](#) and the [Oracle Coherence product page](#).

QUESTION NO: 4

The Administration Server is temporarily unavailable because of a network failure. A Managed Server has previously started successfully while connected to the Administration Server and has a local copy of the domain configuration.

Which statement is true if the Managed Server is started while the Administration Server remains unavailable?

- A. The Managed Server can start using its locally cached configuration.
- B. The Managed Server automatically becomes the Administration Server.
- C. The Managed Server can activate domain configuration changes while disconnected.
- D. The Managed Server must always be started for the first time without an Administration Server connection.

ANSWER: A

Explanation:

The Managed Server can start in **Managed Server Independence mode** by using its locally cached configuration. This allows the server to continue providing application services when it cannot contact the Administration Server, provided that it has previously obtained the required domain configuration.

Managed Server Independence mode does not replace the Administration Server for configuration management. The Managed Server cannot receive newly activated configuration changes until it reconnects to the Administration Server, and administration operations that require Administration Server access remain unavailable. See Oracle documentation on [Managed Server Independence mode](#).

QUESTION NO: 5

You want to migrate an application that was developed for OAS/OC4J to WebLogic. The application uses Oracle Streams Advanced Queuing (AQ). You configured a Foreign JMS Server and Data Source but you are not able to send messages to the AQ destination and see them reach the database. Which two things are missing in this configuration?

- A. nothing, there may be a network connection issue
- B. a Foreign JMS Connection Factory
- C. a JMS Bridge to map the JNDI of the Local JMS Destination to the remote AQ destination
- D. a mapping of the Foreign JMS Connection Factory to the Data Source where AQ is configured and installed.
- E. Oracle AQ Java EE Shared Libraries not deployed and referenced by your application

ANSWER: C E

Explanation:

A WebLogic Messaging Bridge is required when the application sends to a local WebLogic JMS destination and messages must then be forwarded to an Oracle AQ destination. The bridge instance supplies the actual source-to-target mapping, including the source and target destinations, delivery-quality settings, transaction behavior, and reconnection configuration. This makes the forwarding path from WebLogic JMS into AQ explicit and operational. Oracle documents that a messaging bridge communicates between configured source and target bridge destinations, with each bridge instance defining a specific destination mapping. See [Configuring Messaging Bridges for Oracle WebLogic Server](#).

The Oracle AQ Java EE shared libraries must also be deployed and referenced by the application so its AQ JMS implementation classes are available at runtime. These libraries provide the Oracle AQ JMS APIs and integration support needed to create and use AQ JMS connections, sessions, and destinations through the configured environment. Referencing the supplied shared library in the application deployment avoids class-loading gaps during migration from OC4J and allows the application to interact with the AQ infrastructure through WebLogic. Oracle's AQ JMS interoperability guidance is available at [Interoperating with Oracle AQ JMS](#).

QUESTION NO: 6

Assume that you would like to clone an existing WebLogic Domain and enable some customizations. What scenario would you choose?

- A. In the Enterprise Manager, find the domain to be cloned. Choose "Clone WebLogic Domain" from the context menu. In the graphical wizard, customize and extend the domain if needed. These steps will only clone only the domain configuration. Binaries with deployments are needed to be cloned by operation on the file system.
- B. In the Enterprise Manager, find the domain to be cloned. Choose "Clone WebLogic Domain" from the context menu. In the graphical wizard, customize the domain. These steps clone the binaries and domain configuration. If the extension is needed, perform it after cloning in the WebLogic web-based console.
- C. In the Enterprise Manager, find the domain to be cloned. Choose "Clone WebLogic Domain" from the context menu. In the graphical wizard, customize and extend the domain if it is needed. These steps clone the binaries and domain configuration.

D. In the Enterprise Manager, find the domain to be cloned. Choose "Clone WebLogic Domain" from the context menu. These steps clone the binaries and domain configuration. If the customization or extension is needed, complete that after cloning in the WebLogic web-based console.

E. In the file system, copy the domain structure of the configuration directory and paste it in the new location. Modify configuration files for address and port. If further customization is needed, open the WebLogic web-based console and perform these modifications.

ANSWER: C

Explanation:

"In the Enterprise Manager, find the domain to be cloned. Choose "Clone WebLogic Domain" from the context menu. In the graphical wizard, customize and extend the domain if it is needed. These steps clone the binaries and domain configuration." is correct because Enterprise Manager Cloud Control's Clone WebLogic Domain workflow is intended to provision a new domain from a discovered reference domain while allowing configuration changes during the provisioning process. The workflow clones both the Middleware home, including the relevant product binaries, and the WebLogic domain configuration. It is therefore appropriate when the target must be based on an existing environment but requires changes such as a different domain name, Administration Server or Managed Server listen addresses, machine and Node Manager settings, or JDBC data-source properties.

The provisioning wizard presents domain-configuration pages specifically so that these target-environment values can be supplied as part of the cloning operation. It also supports domain extension during the guided provisioning flow when required, which makes this scenario suitable for cloning with customizations rather than merely copying files or deferring all modifications until after creation. Oracle's WebLogic domain configuration documentation describes the domain artifacts that are created and configured as part of domain provisioning: [Oracle WebLogic Server Domain Configuration Guide](#). Oracle Enterprise Manager documentation is available from the [Oracle Enterprise Manager documentation library](#).

QUESTION NO: 7

When your WebLogic Server solution needs to be scaled out with additional capacity and you don't want to add additional hardware, which three techniques should you use?

- A.** Assign more than one managed server to a physical hardware that allows better CPU utilization.
- B.** Assign more than one application to one managed server to better utilize threads within a single JVM process.
- C.** Assign the same application to more than one managed server to load balance requests between servers.
- D.** Assign the same heap size to the managed server across the cluster for easier control of memory footprint
- E.** Create a virtualized environment with hypervisor for an easier solution

ANSWER: A C E

Explanation:

Assigning more than one managed server to a physical hardware that allows better CPU utilization, assigning the same application to more than one managed server to load balance requests between servers, and creating a virtualized environment with hypervisor for an easier solution are valid approaches to increasing usable WebLogic Server capacity without purchasing another physical host. A single physical machine can host multiple Managed Server processes, provided its processor, memory, network, and storage resources are sized and monitored appropriately. Deploying an application across multiple Managed Servers in a cluster enables requests to be distributed among those server instances and provides the horizontal scale-out model used by WebLogic Server. Virtualization further allows administrators to provision and place additional server instances or virtual machines from available physical capacity, while retaining deployment flexibility and operational isolation. These methods work together: virtual infrastructure can provide the execution environment, multiple Managed Servers supply application-serving capacity, and the clustered deployment distributes client work across those servers. Oracle describes a WebLogic cluster as multiple Managed Servers working together to provide scalability and reliability, with workload distribution across cluster members. See [Oracle WebLogic Server clustering documentation](#) and [Oracle WebLogic Server performance and tuning documentation](#).

QUESTION NO: 8

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

- A. coherence-work.jar
- B. coherence.jar
- C. active-cache-1.0.jar
- D. coherence-web-spi.war

ANSWER: B C D

Explanation:

Active Cache integrates Oracle WebLogic Server application behavior with Oracle Coherence, including Coherence-backed HTTP session management. The required deployment set consists of **coherence.jar**, **active-cache-1.0.jar**, and **coherence-web-spi.war**. The **coherence.jar** library supplies the core Oracle Coherence APIs and runtime classes used to access clustered and distributed data services. The **active-cache-1.0.jar** library supplies the Active Cache integration classes that allow WebLogic Server applications and services to interact with Coherence. The deployable shared library **coherence-web-spi.war** provides the native plug-in for WebLogic Server's HTTP Session Management interface, enabling web applications to use Coherence for session-state handling when Active Cache is configured. These artifacts are deployed or referenced as described by the WebLogic/Coherence Active Cache setup documentation so that the application can use the required Coherence APIs and WebLogic session-management integration. Oracle documents these Active Cache components in its [Active Cache documentation](#); related WebLogic Coherence integration concepts are covered in the [WebLogic Server Coherence documentation](#).

QUESTION NO: 9

A highly available WebLogic cluster in UNIX is configured for automatic server migration. Node Manager is configured on both machines to start managed servers.

How should you simulate a managed server failure to test whether automatic server migration is working?

- A. Shut down the managed server from the WebLogic console.
- B. Shut down the managed server using the WLST command through Node Manager.
- C. Run "kill -9" once to kill the managed server process.
- D. Run "kill -9" to kill the managed server process, and run "kill -9" one more time if the managed server is restarting.

ANSWER: D

Explanation:

Run "kill -9" to kill the managed server process, and run "kill -9" one more time if the managed server is restarting. This simulates an abrupt managed-server process failure rather than an intentional, orderly administrative shutdown. An abrupt termination lets the high-availability mechanisms detect that the server is no longer functioning and initiate the configured recovery and migration behavior.

Because Node Manager is configured to start and monitor managed servers, it can detect the first process termination and attempt to restart the managed server locally. If that restart occurs, terminating the process again prevents the local restart from masking the failure condition being tested. This allows the automatic migration configuration to take effect and moves the managed server to an eligible machine, assuming the migration prerequisites, machine assignments, and Node Manager configuration are valid. The test therefore validates both failure detection and the handling of a failed server when the original machine cannot successfully retain it.

Oracle documents Node Manager as the component that monitors and can restart WebLogic Server instances, while Whole Server Migration uses Node Manager to start a migrated server on its destination machine. See [Oracle Node Manager documentation](#) and [Oracle Whole Server Migration documentation](#).

QUESTION NO: 10

A customer needs to implement a Highly Available solution for JMS that has a primary data center and a backup. Which three steps would you perform when designing your solution?

- A. Store Transaction Logs in a database and use Database stores for JMS to make replication between sites easier.
- B. Use file based Transaction Logs and JMS stores and implement a separate replication solution for files in addition to database in case database replication fails.
- C. Implement Oracle RAC at each site to provide a highly available solution within each datacenter.
- D. Configure Whole Server Migration to migrate WebLogic Managed Servers from the primary to the secondary site.
- E. Configure Automatic Service Migration for JMS high availability within a datacenter.

ANSWER: A C E

Explanation:

For a primary and backup data-center JMS design, durable JMS state and transaction recovery information must be available after a site failover. "Store Transaction Logs in a database and use Database stores for JMS to make replication between sites easier" supports this requirement because JDBC stores and transaction logs can rely on database replication rather than requiring separate replication and recovery procedures for local file systems. The database design must preserve consistency and ensure that the backup site can access the replicated persistent state when it becomes active.

"Implement Oracle RAC at each site to provide a highly available solution within each datacenter" provides local database resilience for the JDBC-backed persistent stores and transaction-log records. This complements the cross-site recovery strategy by avoiding a single database instance as a local failure point.

"Configure Automatic Service Migration for JMS high availability within a datacenter" protects JMS services when a managed server or machine fails locally. WebLogic Server can automatically migrate JMS-related migratable services, including the JMS server and its persistent-store service, to an eligible target while preserving the service's configured persistent state. Together, replicated database-backed state, RAC, and automatic service migration address both site-level continuity and intra-site failures. See Oracle's [JMS high-availability documentation](#) and [service migration documentation](#).

QUESTION NO: 11

Which option must you choose to configure Node Manager on a machine (server or zone)?

- A. Configure one Node Manager per domain (for example, if there are two domains on one machine, then you will need to configure two Node Managers).
- B. Configure one Node Manager per machine with any number of WebLogic instances running on it.
- C. Configure one Node Manager per machine for all WebLogic, OHS, and OEM running on the same machine.
- D. Configure one Node Manager for every WebLogic instance.
- E. Configure two or more Node Managers for every WebLogic instance.

ANSWER: B

Explanation:

Configure one Node Manager per machine with any number of WebLogic instances running on it. is correct because Node Manager is associated with the physical or virtual machine on which it runs, rather than being intrinsically tied to a

single WebLogic domain or individual server instance. A single Node Manager process on a machine can be used to start, stop, restart, and monitor multiple Administration Server and Managed Server instances hosted on that same machine. This also allows Node Manager to manage server instances from more than one domain, provided the necessary domain and Node Manager configuration is in place and the instances are local to that machine.

In a typical WebLogic topology, Node Manager is installed and configured on every machine that hosts servers requiring lifecycle control. The Administration Server communicates with the Node Manager running on the relevant machine when it needs to perform operations such as starting a Managed Server remotely. Oracle documents that Node Manager is a per-machine utility and that one Node Manager process can control multiple server instances on that machine. Using one process per machine provides the intended centralized local lifecycle-management service while avoiding unnecessary duplicate Node Manager processes. See Oracle's [Introduction to Node Manager](#) and [Node Manager overview documentation](#).

QUESTION NO: 12

WebLogic 12c, the Maven plug-in has been enhanced with which Maven goal?

- A. `wls:unzip`, `wls:install-domain`, `wls:start-domain`, `wls:wlst`, `wls:appc`
- B. `wls:install`, `wls:install-domain`, `wls:start-domain`, `wls:wlst`, `wls:appc`
- C. `wls:unzip`, `wls:create-domain`, `wls:start-domain`, `wls:wlst`, `wls:appc`
- D. `wls:install`, `wls:create-domain`, `wls:start-server`, `wls:wlst`, `wls:appc`

ANSWER: D

Explanation:

The correct goal set is **`wls:install`**, **`wls:create-domain`**, **`wls:start-server`**, **`wls:wlst`**, **`wls:appc`**. Oracle WebLogic Server 12c includes the WebLogic Development Maven Plug-In, which automates important development and lifecycle tasks from Maven builds. The `wls:install` goal installs a WebLogic Server distribution, while `wls:create-domain` creates a WebLogic domain using supplied configuration. The `wls:start-server` goal starts a server instance, allowing subsequent build phases or integration tests to interact with the domain. The `wls:wlst` goal runs WebLogic Scripting Tool scripts, enabling scripted administrative configuration. Finally, `wls:appc` invokes the WebLogic application compiler, which performs application compilation and validation steps needed for WebLogic deployment processing. Together, these goals reflect the enhanced Maven integration described for WebLogic Server 12c and support repeatable provisioning, configuration, startup, scripting, and application build workflows. Oracle documents these goals in its WebLogic Development Maven Plug-In guide: [Using the WebLogic Development Maven Plug-In](#). Related Maven-based build and deployment guidance is also available in the [WebLogic Server Deployment Guide](#).