Oracle IT Architecture Release 3 Essentials
Exam Study Guide

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Objective & Audience

Objective
Help you prepare to take the Oracle IT Architecture Release 3 Essentials (1Z0-574) exam by providing pointers to resources that you can use in your preparation.

Targeted Audience

- IT Architects
- Solution Architects
- Enterprise Architects
Exam Topics & Objectives

Exam Topics
The Oracle IT Architecture Release 3 Essentials (1Z0-574) exam consists of nine topics:

1. IT Strategies from Oracle - Overview
2. Oracle Reference Architecture Overview
3. Application Infrastructure
4. Security
5. Engineering
6. Integration
7. Management and Monitoring
8. Service Orientation
9. User Interaction

Exam Objectives
The exam objectives are defined by learner or practitioner level of knowledge:

- **Learner-level**: questions require the candidate to recall information to determine the correct answer.

  Example: Define the term network.

- **Practitioner-level**: questions require the candidate to derive the correct answer from the application of their knowledge, which can only be attained by understanding and applying the concepts presented.

  Example: The client requests xyz functionality, would you recommend a, b or c?
Topic 1: IT Strategies from Oracle - Overview

Objectives

- Review IT Strategies from Oracle Framework
- Explain Oracle Reference Architecture
- Explain Enterprise Technology Strategies
- Explain Enterprise Solution Design

Level

Learner

Training Options

- Reference library materials
  - Oracle Reference Architecture Overview

Sample Question

1. Your company has decided to create an Enterprise Architecture following The Open Group Architecture Framework (TOGAF). Which option best describes how the IT Strategies from Oracle (ITSO) library of material relates to this TOGAF-based initiative?

a. ITSO has minimal applicability because TOGAF is a complete architecture framework.
b. The ITSO material can be used as reference material within the TOGAF approach.
c. The TOGAF approach will need to be modified (customized) to incorporate the ITSO material.
d. The ITSO material will need to be adapted to the TOGAF approach.
e. TOGAF and ITSO are mutually exclusive. One or the other must be chosen as the basis for the company’s Enterprise Architecture.
Topic 2: Oracle Reference Architecture Overview

Objectives

- Describe the purpose, documentation approach, core principles, and concepts of Oracle Reference Architecture library

Level: Learner

Training Options

- Reference library materials
  - Oracle Reference Architecture Overview
  - Oracle Reference Architecture Master Glossary

Sample Question

1. Which statement best describes the relationship between Oracle Reference Architecture (ORA) and the Oracle products?
   a. ORA describes the architecture built in to the Oracle products.
   b. ORA describes the architecture underlying the Oracle Fusion Applications.
   c. ORA describes a product-agnostic architecture and then maps the Oracle products onto the architecture.
   d. ORA describes an architecture that is exclusively based on Oracle products.
Topic 3: Application Infrastructure

Objectives

- Explain Introduction Oracle Reference Architecture application infrastructure
- Describe Distributed Computing Concepts
- Describe Grid Computing Capabilities and Architectural Concepts
- Describe Cloud Computing Capabilities and Architectural Concepts
- Describe Virtualization and how it plays a key role in the foundation infrastructure
- Describe the role of Containers in the Application Infrastructure
- Describe Data Management capabilities and how caching plays an integral role in the foundation infrastructure
- Create the Product Mapping View to map Oracle products to the application infrastructure layers

Level

- Learner

Training Options

- Reference library materials
  - ORA Application Infrastructure Foundation

Sample Questions

1. Select the most appropriate reason why three-tier architecture is a better architectural choice than simple Client-Server architecture for complex enterprise applications.
   a. Three-tier architecture uses three threads to run the applications, so performance is better.
   b. Three-tier architecture uses a tiered approach to separate the processing of business logic, data, and presentation. This allows the tiers to be independently scaled to maximize the investment.
   c. Three-tier architecture combines presentation, business logic, and data processing into a single layer to eliminate network latencies.
   d. Three-tier architecture moves all processing to the client, thereby reducing the load on the server.

2. Which of the following is not a characteristic of Cloud computing?
   a. multi-tenancy
   b. elastic scaling
   c. pay-for-use pricing
   d. manual provisioning
Topic 4: Security

Objectives
- Describe Security
- Describe Application Security
- Describe Data Security
- Describe User Security
- Explain Common Security Strategies
- Describe Security Concepts and Capabilities
- Describe Common Security Standards
- Describe a Conceptual Architecture View of the Security layer
- Describe the Logical Architecture View of the Security layer
- Create the Product Mapping View to identify the Oracle products that map to Security layers

Level
Learner
Learner
Learner
Learner
Learner
Learner
Learner
Learner
Practitioner

Training Options
- Reference library materials
  - ORA Security

Sample Questions

1. There are a number of ways to classify applications in order to assess business risks and assign appropriate security policies. Which of the following is not described as a primary means to classify an application?
   a. by the user community it serves, such as HR, finance, all employees, general public, and so on
   b. by the information it handles, such as classified information, personal information, publicly available information, and so on
   c. by business criticality, such as revenue-generating applications versus informational applications
   d. by technology and/or vendor, such as .NET versus Java, and so on
   e. by the applicability of existing laws and regulations pertaining to privacy, auditing, and access control

2. Audit logging is a form of what type of access control mechanism?
   a. detective control
   b. preventive control
   c. deterrent control
   d. corrective control
   e. compensating control
   f. recovery control
Topic 5: Engineering

Objectives

- Review Oracle Reference Architecture Engineering, asset-centric engineering and related standards  
  Learner
- Describe Oracle Reference Architecture Engineering Concepts and Capabilities  
  Learner
- Describe the Conceptual Architecture View model for Oracle Reference Architecture Engineering and the capabilities required for an engineering infrastructure  
  Learner
- Use Logical Oracle Reference Architecture Engineering Architecture View components of the engineering environment and show how they are connected to each other  
  Practitioner
- Describe the Deployment Oracle Reference Architecture Engineering View packaging and deployment related aspects of Oracle Reference Architecture Engineering  
  Learner
- Create the Product Mapping View to show how Oracle products fit on to the logical model to realize the engineering infrastructure  
  Practitioner
- Describe Oracle Reference Architecture Engineering basic best practices  
  Learner

Training Options

- Reference library materials
  - ORA Software Engineering
  - ORA Engineered Systems

Sample Question

1. You are developing an integration component that uses customer data. The source system defines customer data in a different format than expected. Which of the following options best describes how you would develop the component?

   a. Create an object representation of customer data and use it in the component.
   b. **Externalize the data transformation by mapping the source data format to a canonical data format.**
   c. The data formats are different, so it is not possible to develop the component.
   d. Write the data from the source system into a database and read it back in the expected format.
Topic 6: Integration

Objectives

- Explain Service-oriented integration and how this differs from more traditional integration approaches
  
  Learner

- Describe principles that should be met by any architecture that purports to support a Service-oriented approach to integration
  
  Learner

- Create Logical Architecture View components of the Information Management environment and show how they are connected to each other
  
  Practitioner

- Describe Development View of Service-oriented Integration
  
  Learner

- Describe Process View of Service-oriented Integration
  
  Learner

- Create the Product Mapping View to illustrate how Oracle products can be used to realize the architecture
  
  Practitioner

- Use Service-oriented Integration’s integration patterns and message exchange patterns to identify best approaches for integration scenarios
  
  Practitioner

Training Options

- Reference library materials
  
  ORA Service-Oriented Integration

Sample Questions

1. Which statement best describes the relationship between the Service-Oriented Integration (SOI) architecture and the Application Integration Architecture (AIA) product from Oracle?

   a. AIA is a product-specific implementation of the SOI architecture.
   
   b. AIA is a traditional Enterprise Application Integration (EAI) architecture; therefore AIA does not follow the SOI architecture.
   
   c. AIA is an Oracle product that maps to some of the layers and capabilities defined by the SOI architecture.
   
   d. AIA is one of many Oracle products that maps onto the SOI architecture.

2. Which statement best describes how Service-Oriented Integration (SOI) differs from traditional Enterprise Application Integration (EAI)?

   a. SOI is just like EAI except that a service bus is used instead of a hub or message bus.
   
   b. SOI is different than hub-based EAI, but is the same as EAI using a message bus.
   
   c. SOI uses a point-to-point integration approach based on the Web Services industry standards.
   
   d. SOI uses SOA Services that are separate and distinct from the applications being integrated.
   
   e. EAI integrates applications whereas SOA integrates SOA Services.
# Topic 7: Management and Monitoring

## Objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Level</th>
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<tbody>
<tr>
<td>Explain Management and Visibility Gap</td>
<td>Learner</td>
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<tr>
<td>Describe Common Management and Monitoring Standards</td>
<td>Learner</td>
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<tr>
<td>Describe Key Management and Monitoring Capabilities</td>
<td>Learner</td>
</tr>
<tr>
<td>Describe Conceptual View model for Management and Monitoring and the capabilities required for a Management and Monitoring infrastructure</td>
<td>Learner</td>
</tr>
<tr>
<td>Identify the Logic View components of the Management and Monitoring environment and show how they are connected to each other</td>
<td>Practitioner</td>
</tr>
<tr>
<td>Create the Product Mapping View to illustrate how Oracle products can be used to realize the architecture</td>
<td>Practitioner</td>
</tr>
<tr>
<td>Describe how the Deployment View defines how Oracle products might be deployed to physical hardware</td>
<td>Learner</td>
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</tbody>
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## Training Options

- Reference library materials
  - ORA Management and Monitoring

## Sample Questions

1. Which of the following are capabilities provided by the Monitoring Engine within the Logical view of the Management and Monitoring architecture?
   - a. Resource Monitor
   - b. System Monitor
   - c. Collection Monitor
   - d. Service Monitor

2. When mapping Oracle Products onto the Logical view, what is the best approach?
   - a. Utilize management packs, connectors, and plug-ins to create a customized product mapping for the Logical view.
   - b. **Use Oracle Enterprise Manager to provide core capabilities required by the three layers for Oracle stack, and use management packs, connectors, and plug-ins for non-Oracle stack.**
   - c. Use an Oracle Enterprise Manager product to provide all the capabilities required by the three layers in the Management and Monitoring architecture.
   - d. Use a third-party to provide all capabilities required by the three layers in the Management and Monitoring architecture.
Topic 8: Service Orientation

Objectives

- Explain the fundamental concepts of the Oracle Reference Architecture
- Describe how Definition of a Service provides an unambiguous definition of Service Oriented Architecture Service used as a building block with a Service Oriented Architecture
- Describe how Combining Technology Perspectives defines how different Enterprise Technology Strategies can be combined by following the foundational concepts of the Oracle Reference Architecture

Training Options

- Reference library materials
  - ORA Service Orientation

Sample Questions

1. The Oracle Reference Architecture (ORA) includes the concept of Technology Perspectives. Which statements are true concerning ORA and Technology Perspectives?
   a. Each Technology Perspective focuses on a particular set of products and technology.
   b. A Technology Perspective includes both reference architecture views as well as practical guidance and approaches for successfully implementing the changes required to embrace the products and technology.
   c. The Technology Perspectives can be used individually or in combinations, for example, SOA with BI.
   d. The Technology Perspectives can be used individually or in combinations. When used in combinations, the SOA Technology Perspective must be included.
   e. Each Technology Perspective is part of ORA and is part of an Enterprise Technology Strategy; i.e. a Technology Perspective is the connection between ORA and an Enterprise Technology Strategy.

2. Which of the following are examples of the management and visibility gap between the traditionally monitored IT infrastructure resources and the Services?
   a. On-going Shift to Move to an Agile Shared Service Computing Environment
   b. On-going Shift to Manage IT from an End-User Experience Perspective
   c. Loosening of Corporate Policies and Regulations
   d. Increasing Number of Heterogeneous IT Infrastructure Components to Manage
   e. Complex Distributed Environments Requiring Access to Consolidated Information
Topic 9: User Interaction

Objectives

• Explain Oracle Reference Architecture User Interaction and how this differs from more traditional user interface approaches  
  Learner
• Describe the Principles that should be met by any architecture that purports to support modern user interfaces  
  Learner
• Describe Industry Standards that are of particular relevance to a user Interface Architecture  
  Learner
• Identify the Logical Architecture View components of the Information Management environment and show how they are connected to each other  
  Practitioner
• Describe the Development View of User Interaction  
  Learner
• Describe the Process View of User Interaction  
  Learner
• Describe the Deployment View of User Interaction  
  Learner
• Create the Product Mapping View to illustrate how Oracle products can be used to realize the architecture  
  Practitioner

Training Options

• Reference library materials
  – ORA User Interaction

Sample Questions

1. A customer with an existing WebCenter portal wants to expand his client device list to include a variety of mobile devices beyond basic browser support. What Oracle products are available to enable this expansion?
   a. OWC, OHS, ADF Mobile, and Java ME
   b. OWCA, ADF Mobile, OPSS, and Java ME
   c. OWC, OHS, and ADF Mobile
   d. OWCIC, ADF Mobile, and Java ME

2. Which product provides the standard communication protocols (for example, HTTPS) between the Client Tier and the Service Tier as well as Message Security?
   a. Oracle Platform Security Services
   b. Oracle WebCenter
   c. Application Development Framework
   d. Oracle HTTP Server
Exam Registration

• **How to register for the exam?**
  You can register for all Oracle certification exams with Pearson VUE. Before a registration can be submitted, a Pearson VUE profile must be created using your Company ID. Your Company ID can be obtained by contacting your local Oracle Partner Business Center or by signing in to your OPN account. Your Company ID is located in the section on the right under "Company information".

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  B. Activate your Certview Account

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