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Oracle SOA Suite 12c Essentials Exam Study Guide

Getting Started

The Oracle SOA Suite 12c Essentials Exam Study Guide is designed to help you prepare for the Oracle SOA Suite 12c Essentials Exam (1Z0-434).

Earning this certification helps OPN members differentiate in the marketplace through proven in-depth expertise, and helps their partner company qualify for the [Oracle SOA Suite 12c Specialization](#).

Target Audience

Oracle SOA Suite 12c Essentials 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:

- Senior Technical Consultant

Level of Competency:

- Candidates should have 2 or 3 SOA project implementations including at least one substantial implementation using SOA Suite.
- Participants should have at least 2 years of implementation experience.
- Participants should possess good knowledge of key technologies like: SCA, ESB, BPEL, Mediator, Business Rules, Human Workflow, adapters and BAM.
- Deep experience in at least one other Oracle product family is highly recommended.

Exam Topics

The Oracle SOA Suite 12c Essentials Exam covers eleven topics:

- [Fundamentals](#)
- [BPEL Modeling](#)
- [Adapters](#)
- [Business Rules](#)
- [Human Task Services](#)
- [Service Mediation](#)
- [Event Processing](#)
- [Business Activity Monitoring \(BAM\)](#)
- [Securing Services](#)
- [Deployment and Troubleshooting](#)
- [Installation and Configuration](#)

Levels of Knowledge

Each exam topic contains objectives and each objective is categorized as either a 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:

Recommended Training

- [OPN Boot Camps](#)
- [Online Training](#)
- [Oracle University Training](#)

Recommended Documentation

- [Oracle Documentation](#)
- Product tutorials, datasheets and white papers
- Books

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: Fundamentals

Objective	Level
<ul style="list-style-type: none"> • Explain basic SOA concepts and how they map to implementations 	Learner
<ul style="list-style-type: none"> • Describe the components and architecture of SOA Suite 	Learner
<ul style="list-style-type: none"> • Describe SOA Suite's role in cloud integration and mobile applications 	Learner
<ul style="list-style-type: none"> • Use the right components to implement common integration patterns 	Practitioner
<ul style="list-style-type: none"> • Analyze XPath expressions to retrieve elements in an XML document 	Practitioner
<ul style="list-style-type: none"> • Describe Oracle's SOA governance capabilities 	Learner
<ul style="list-style-type: none"> • Describe how B2B capabilities enable trading partner relationships 	Learner
<ul style="list-style-type: none"> • Describe the main features of the Enterprise Scheduler Service (ESS) 	Learner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Online Training

- [Oracle SOA Suite 12c High Level Overview](#)

Recommended Documentation

Datasheets and White Papers

- [Oracle SOA Suite 12c Data Sheet](#)
- [Oracle SOA Suite 12c – A Detailed Look White Paper](#)
- [What's New in Oracle SOA Suite 12c White Paper](#)

Sample Questions

- Which two statements are true about composite applications and mediators?

- A. A composite application decouples the interface from business logic.
- B. A composite application exposes a process as a web service.**
- C. A mediator exposes a process as a web service.
- D. A mediator decouples the interface from business logic in a composite application.**

- What does the Oracle B2B component do for an end-to-end EDI transaction?
 - A. EDI translation, validation, and transformation
 - B. only EDI translation and validation, but not transformation**
 - C. only transformation, but not translation or validation
 - D. defines EDI documents, but does not do translation, validation, or transformation



Topic 2: BPEL Modeling

Objective

- Use the BPEL Editor to create synchronous and asynchronous processes
- Use WSDL partner link types and BPEL partner link elements to interact with services
- Use the assign activity to manipulate data in BPEL variables
- Model conditional branching, looping, and parallel processing
- Implement exception handling, compensating transactions and correlation
- Create and configure BPEL and composite sensors
- Use the debugger

Level

Practitioner
Practitioner
Practitioner
Practitioner
Practitioner
Practitioner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Online Training

- [Oracle SOA Suite 12c – Using the SOA Debugger in JDeveloper](#)

Recommended Documentation

Oracle Documentation

- [BPEL Process Activities and Services](#)
- [Using the BPEL Process Service Component](#)
- [Introduction to Interaction Patterns in a BPEL Process](#)

Sample Questions

- You have developed a BPEL process with a Switch activity using the BPEL 1.1 specification. As part of the upgrade to SOA 12c, you are redesigning the BPEL process to use the BPEL 2.0 specification.

Identify the right approach.

- A. Replace the Switch activity with a While activity.
B. Replace the Switch activity with an If activity.



- C. Replace the Switch activity with a Repeat Until activity.
- D. Replace the Switch activity with a For Each activity.

- You want to monitor a specific BPEL process variable in your process. You have all the capabilities of Oracle SOA Suite at your disposal.

Which approach do you take if you want the variable data written to a JMS queue to be processed by another application?

- A. Identify the variable as a key performance indicator (KPI) and track it in BAM.
- B. Use a composite sensor on the appropriate service or reference binding.
- C. Use a BPEL Process Manager sensor to collect the value and context.**
- D. Use Oracle Event Processing (OEP) to monitor the activities being executed in the BPEL process.

Topic 3: Adapters

Objective

- Describe the role adapters play in a SOA composite application
- Describe the adapter architecture
- Use the file, database, and JMS adapters
- Configure adapters at design-time and run-time
- Describe cloud-related adapters

Level

Learner
Learner
Practitioner
Practitioner
Learner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Recommended Documentation

Oracle Documentation

- [Introduction to Oracle JCA Adapters](#)
- [Oracle Cloud Adapter for Salesforce.com](#)

Sample Questions

- A company wants to use Oracle SOA Suite to support a zero message loss system.

Which three Oracle Adapters can the company use?

- A. JMS Adapter**
- B. Database Adapter**
- C. EJB Adapter**
- D. File/FTP Adapter
- E. Socket Adapter

- Which statement is true about the relationship between the WSDL and the JCA binding file when working with an Oracle Adapter at design time?

- A. The WSDL references the appropriate JCA binding file for each applicable operation in the WSDL “binding” element.
- B. All operations defined in the WSDL must be mapped to activation



specifications in the JCA binding file.

C. The JCA binding file defines default adapter property values for each applicable operation defined in the WSDL.

D. There is no direct relationship between the WSDL and the JCA binding file at design time.

Topic 4: Business Rules

Objective

- Create if/then rules with Rules Designer
- Create decision table rules with Rules Designer
- Integrate a rule into a BPEL process
- Describe how rules are used with mediator and human task components

Level

Practitioner
Practitioner
Practitioner
Learner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Recommended Documentation

Oracle Documentation

- [Using the Business Rules Service Component](#)
- [Overview of Oracle Business Rules](#)

Sample Questions

- Which three design considerations apply to an IF-THEN rule?
 - A rule function can be called.**
 - Aggregations such as count, max, and average can be used.**
 - A while loop can be employed.**
 - Fact object structures can be changed.
 - A BPEL scope variable can be defined.

- You expand a business rule component that a colleague added to the BPEL process. You see an Assign element named `Facts_To_Rule_Service`.

Which statement is true about this Assign element?

- It was added automatically based on entries that your colleague made in the dialog box that appeared when the business rule component was added to the BPEL model.**
- Your colleague manually added this Assign element after adding the business rule component to the BPEL model.
- This Assign element was automatically added when your colleague manually added the corresponding `Rule_Service_To_Facts` Assign to the BPEL



model.

D. You can delete this Assign because it was created for documentation purposes only.

Topic 5: Human Task Services

Objective

- Design a human task
- Invoke a human task from a BPEL process
- Generate Application Development Framework (ADF) task forms for human tasks
- Interact with Business Process Workspace to act on tasks

Level

Practitioner
Practitioner
Practitioner
Practitioner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Recommended Documentation

Oracle Documentation

- [Using the Human Workflow Service Component](#)
- [Getting Started with Human Workflow](#)

Sample Questions

- Identify four situations in which you can configure a notification for a human task.
 - A. task created
 - B. task completed**
 - C. task opened in workspace
 - D. task errored**
 - E. outcome updated**
 - F. task assigned**
- Which two statements are true about working with tasks in Business Process Workspace?
 - A. A user can create personal to-do tasks that are unassociated with a process instance.**
 - B. Delegating a task means to transfer the task to another user or group.
 - C. You can see how long each completed step has taken to finish.
 - D. You can display the process model and view the path a process instance has taken.**



Topic 6: Service Mediation

Objective

- | | Level |
|----------------------------------------------------------------------------------------------|--------------|
| • Differentiate between when to use Mediator and Service Bus | Learner |
| • Explain the role of Service Bus and the benefits it provides | Learner |
| • Create and configure Service Bus proxies, pipelines, and business services | Practitioner |
| • Use throttling, endpoint management, and caching to scale business services in Service Bus | Practitioner |
| • Configure a service as RESTful and access it using the REST approach | Practitioner |

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Online Training

- [Oracle SOA Suite 12c: REST Enabling SOA](#)

Recommended Documentation

Oracle Documentation

- [Using the Oracle Mediator Service Component](#)
- [Getting Started with Oracle Mediator](#)
- [Oracle Service Bus Overview](#)
- [Service Bus Components](#)

Sample Questions

- To avoid the purchase of new server capacity, a company must limit the volume of messages routed to a computationally expensive RESTful service operation.

Which Oracle SOA Suite component can help the company meet the requirement?

- A. BPEL Process
- B. Mediator
- C. Proxy Service



D. Business Service

- Which three security schemes are supported by Oracle Service Bus (OSB)?
 - A. partial encryption of a request as defined by a custom WS-Security policy**
 - B. partial encryption of a request as defined by an OWSM policy
 - C. authentication of a request as defined by an OWSM policy**
 - D. propagation of a Security Assertion Markup Language (SAML) token from a WebCenter portal to an OSB proxy service
 - E. propagation of a SAML token from a WebCenter portal to the OSB console**

Topic 7: Event Processing

Objective

- Explain event-driven architecture and the support provided by Event Delivery Network (EDN)
- Use components to publish and consume events
- Explain Complex Event Processing (CEP) and how it is supported by Oracle Event Processing (OEP)
- Explain Event Processing Network (EPN) and how it relates to OEP
- Explain how various OEP CQL data cartridges enhance the capabilities of the CQL engine

Level

Learner

Practitioner

Learner

Learner

Learner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Online Training

- [Oracle Event Processing 12.1.3: Enabling Fraud Detection in SOA Suite](#)

Recommended Documentation

Oracle Documentation

- [Using Business Events and the Event Delivery Network](#)
- [Event Processing Overview](#)
- [Oracle Event Processing Overview](#)

Sample Questions

- You defined an event. You now want to trigger that event from an existing Mediator component.

How do you link the event to the Mediator so that the Mediator can raise the event to the Event Delivery Network (EDN)?

- Use the SOA Composite Editor to specify the event as a property on the incoming wire into the Mediator component.
- Use a text editor to modify the .edl file that defines the event so that the Mediator is identified as a publisher.



C. Use the SOA Composite Editor to add a raise action to the Mediator's .mplan specification file.

D. Use Enterprise Manager to associate the Mediator with the appropriate event.

- Which Oracle Event Processing (OEP) data cartridge should you use to track the GPS location of busses and generate alerts when a bus arrives at its predetermined bus stop positions?
 - A. JDBC Data
 - B. Oracle Spatial**
 - C. Hadoop Big Data
 - D. NoSQLDB Big Data
 - E. Java Data

Topic 8: Business Activity Monitoring (BAM)

Objective

- Describe the role of Business Activity Monitoring (BAM)
- Use counters, business indicators and interval monitoring objects
- Create alert rules to launch alerts
- Build and use dashboards

Level

Learner
Practitioner
Practitioner
Practitioner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Recommended Documentation

Oracle Documentation

- [What You Can Do with BAM](#)
- [Creating Dashboards](#)
- [Creating Alerts](#)

Sample Questions

- Which two business indicators should be created to support a chart titled “Sales Total by Region”?

- A. Measure**
- B. Counter
- C. Counter mark
- D. Dimension**

- Which two statements are true about standard dashboards?

- A. Workload dashboards report on completed instances.
- B. Performance dashboards report on in-flight instances.
- C. By default, there is a 30-minute delay for workload data to be reflected in standard dashboards.**
- D. By default, data never ages out of the process analytics database because it is not periodically purged.**



Topic 9: Securing Services

Objective

- Describe the role and features of Oracle Web Services Manager
- Describe identity propagation
- Attach security policies to end points at design-time and run-time

Level

Learner
Learner
Practitioner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Recommended Documentation

Oracle Documentation

- [Understanding Web Service Security Concepts](#)
- [OWSM Overview](#)
- [Understanding the OWSM Policy Framework](#)

Sample Questions

- Which statement correctly describes the role of an Oracle Web Services Manager agent?
 - A. It serves as a Policy Definition Point (PDP).
 - B. It serves as a Policy Enforcement Point (PEP).
 - C. It serves as both a PDP and a PEP.**
 - D. It is neither a PDP nor a PEP.
- When more than one policy is attached to a policy subject, the combination of policies needs to be valid.
 - A. Only one MTOM policy can be attached to a policy subject.**
 - B. More than one Reliable Messaging policy can be attached to a policy subject.
 - C. You cannot have both a Reliable Messaging policy and a WSAddressing policy attached to the same policy subject.
 - D. Only one security policy can be attached to a policy subject.



Topic 10: Deployment and Troubleshooting

Objective

- Deploy and undeploy components to SOA Suite
- Create test cases to initiate inbound messages and to emulate outbound, fault and callback messages
- Monitor components deployed to SOA Suite
- Describe how SOA Suite applications scale to large-scale production
- Troubleshoot a deployed SOA Suite application

Level

Practitioner
Practitioner
Practitioner
Learner
Practitioner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Recommended Documentation

Oracle Documentation

- [Deploying SOA Composite Applications in Oracle JDeveloper](#)
- [Deploying and Managing SOA Composite Applications](#)

Sample Questions

- As an Oracle SOA Suite composite moves through the software development life cycle, certain environment-specific changes must be made to the composite configuration from development to deployment.

Which feature can help you capture and effect these changes?

- A. Configuration Plans
- B. Deployment Plans
- C. Domain Value Maps
- D. Property Files

- Which statement accurately describes deploying your SOA application to a cluster?
 - A. Manually deploy the application to each managed server in the cluster.



- B. After deployment, restart each managed server in the cluster before the application is available for service.
- C. Use WebLogic Server Administration Console for deployment because you cannot deploy to a cluster from JDeveloper.
- D. Treat your cluster as a single deployment target and let the administration server automatically deploy the application to all the managed servers in the cluster.**

Topic 11: Installation and Configuration

Objective

- Install and configure SOA Suite
- Upgrade a production application from SOA Suite 11g
- Install and configure Oracle Event Processing (OEP)

Level

Practitioner
Practitioner
Practitioner

Recommended Training

OPN Boot Camps

- [Oracle SOA Suite 12c Implementation Boot Camp](#)

Oracle University Training

- [Oracle SOA Suite 12c: Essential Concepts](#)
- [Oracle SOA Suite 12c: Build Composite Applications](#)

Online Training

- [Oracle SOA Suite 12c – Performing a Quick Start Installation](#)
- [Upgrading Oracle SOA Suite to 12c: Installing 12c Software](#)
- [Oracle Enterprise Manager 12c: Manage Oracle SOA Suite](#)

Recommended Documentation

Oracle Documentation

- [Installing Oracle SOA Suite Quick Start for Developers](#)
- [Configuring a Compact Domain for Oracle SOA Suite Quick Start](#)
- [Installing and Configuring Oracle SOA Suite and Business Process Management](#)
- [Enterprise Deployment Guide for Oracle SOA Suite](#)

Sample Questions

- To support the deployment of a new provisioning system, a company wants to install and configure a production domain with Oracle SOA Suite and Oracle Service Bus.

Which statement is true about the required effort?

- A. Separate domains must be configured for Oracle SOA Suite and Oracle Service Bus.
- B. The Oracle Repository Creation Utility (RCU) must be run twice to create the required schemas.
- C. The installation of Oracle SOA Suite includes the installation of Oracle Service Bus.



D. A supported version of WebLogic Server must be installed before installing Oracle SOA Suite.

- After you install the OEP product, which action is required to install and configure an OEP domain?
 - A. Configure the OEP port through the OEP console.
 - B. Configure the JDBC settings in the `config.xml` file.
 - C. Create an OEP domain with the Configuration Wizard.**
 - D. Start the OEP server and enter the administrator credentials when prompted.

Exam Registration Details

Full exam preparation details are available on the exam page Oracle SOA Suite 12c Essentials (1Z0-434), 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 Service-Oriented Architecture Knowledge Zone](#)
- [Oracle SOA Suite 12c Specialization](#)
- [OPN Guided Learning Paths & Assessments](#)
- [OPN Certified Specialist Exam Study Guides](#)