

Oracle Access Management 12c: Administration Essentials

Oracle Database

DURATION

5 Days

MODULES

10 Lectures

COURSE CODE

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Course Overview

This Oracle Access Management 12c PS3 Administration Essentials training, teaches you to install and configure Oracle Access Management 12c PS3(12.2.1.3). Learn how to provide authentication, single sign-on and authorization services for protected resources & more.

What You Will Learn

Course Overview

- Course Objectives
- Course Agenda
- Practice Environment: Overview

Introduction to Oracle Access Management

- Objectives
- Road Map
- Oracle Identity and Access Management Products
- Access Management Platform
- Oracle Access Management 12c PS3: Overview
- Oracle Access Management: Services
- Oracle Access Management: Salient Features
- Oracle Access Management 12c Architecture
- Road Map
- Installation and Configuration
- Fusion Middleware Configuration Wizard: Templates
- Road Map
- OAM 12c PS3 Runtime Architecture
- OAM 12c PS3 Servers
- Scalable Deployment Models
- Multidatcenter Support

- Road Map
- Management Interfaces
- Administration Interface: Alta Skin Based
- REST-Based Policy Administration APIs
- Road Map
- Session Management
- Session Management in OAM Console
- Session Management with REST API
- Database-Based Session Cache
- Road Map
- Oracle Access Management Policy Model
- Authorization Policy Management
- Policy Model Features
- Authorization Policy Model
- About Policy Ordering
- Configuring Policy Ordering
- Road Map
- Centralized Agent Management
- Login Processing with OAM Agents
- Embedded Credential Collector
- Detached Credential Collector
- Road Map
- Password Management
- Global Password Policy
- Managing Password Policy with REST
- Road Map
- Auditing and Logging
- Connection Simulator: Access Tester
- Access Tester Tool
- Road Map
- Oracle Integrations
- Windows Native Authentication
- Java SDK and Extensibility Framework
- Quiz
- Summary

Installation and Configuration

- Objectives
- Road Map
- Oracle Fusion Middleware Home and Oracle WebLogic Server Home
- Oracle Home
- Installing and Configuring Oracle Access Management: Sequence of Steps
- Installation Versus Configuration
- System Requirements for Oracle Identity and Access Management 12c PS3
- Road Map

- Oracle Middleware Infrastructure Installation
- Choosing an Installation Type
- Middleware Home
- Setting Environment Variables
- Practice 3-1 Overview: Installing Fusion Middleware Infrastructure and Identity and Access Management Products
- Road Map
- Installation: Welcome, Middleware Home, and Installation Type
- Prerequisite Checks, Installation Summary, and Progress
- Installation Complete
- Road Map
- Oracle Database Requirements
- Creating OAM Schema by Using RCU
- Creating OAM Schema: Operation and Database Connection Details
- Schema Creation: Select Components
- Creating OAM Schema: Tablespaces
- Practice 3-2 Overview: Configuring OAM Schema
- Road Map
- Configuration Wizard: Configuring Oracle Access Management Products
- Configuration Wizard: Domain and Application Location
- Configuration Wizard: Administrator, Domain Mode, and JDK
- Configuring Database Connection, JDBC Component Datasources
- Configuration Wizard: Administration and Managed Servers
- Configuration Wizard: Clusters and Machines
- Configuration Wizard: Assigning Servers to Machines and Summary
- Servers, Applications, and Data Sources
- Installing OHS for Oracle WebLogic Server
- Configuration Wizard: Extending Domain and Domain Source
- Practice 3-3 Overview: Configuring a WebLogic Server (WLS) Domain for Oracle Access Manager
- Road Map
- Starting Oracle Access Management
- Validating a Successful Installation and Configuration
- Oracle WebLogic Server Administration Console
- Oracle WebLogic Server Administration Console: Server Status
- Oracle Access Management Administration Console
- Oracle Enterprise Manager Fusion Middleware Control
- Practice 3-4 Overview: Performing Sanity Checks
- Road Map
- Uninstallation Prerequisites
- Uninstalling the Oracle Identity and Access Management Oracle Home
- Quiz
- Summary

- Objectives
- Road Map
- Oracle Access Management Administration Console
- Servers
- Creating and Deleting a Managed Server
- Managing Servers
- Individual Server Properties
- OAM Proxy
- Managing Servers
- Road Map
- Agents
- Installing and Configuring WebGate 12c
- Practice 4 Overview: Installing OHS, and Installing, Creating, and Configuring an OAM 12c WebGate
- Road Map
- Registering Agents
- Creating or Registering OAM Agents by Using the OAM Console
- Viewing and Editing OAM Agent Registration by Using OAM Console
- In-Band Versus Out-of-Band Registration of Agents
- Registration Tool
- Using the Registration Tool
- Registration Output Files
- Registration Tool
- Registration Using the oamreg Tool
- Request File
- Sample Request File: Short Version
- Key Request Parameters
- Request File: Parameter Guidelines
- In-Band Registration Using the oamreg Tool
- Out-of-Band Registration Using the oamreg Tool
- Remote Registration: Common Issues
- Using the Remote Registration Utility: Roles
- Practice 4 Overview: Registering Agents
- Road Map
- User Identity Store
- Data Repositories
- User Identity Store: WLS Embedded LDAP Server
- User Identity Store: Managing LDAP Servers
- Testing an LDAP Connection
- Quiz
- Practice 4 Overview: Managing Identity Store and Agent Communication
- Summary

- Objectives
- Road Map
- Application Domain
- Conceptual Relationships for Policy Objects
- Road Map
- Resource Types
- Custom Types and Operations
- Host Identifier
- Road Map
- Access Control
- Authentication
- Authorization
- Road Map
- Authentication Module
- Authentication Module Features
- Step-Up Authentication Feature
- Shared Components: Authentication Schemes
- Road Map
- Conditions
- Rules
- Simple Rule Mode
- Expression Rule Mode
- Expression Rule Mode: Special Characters
- Expression Rule Mode: Examples
- Policy Model: LDAP Search Filter
- LDAP Search Filter
- Multiple IP4 Ranges
- Attribute Condition
- Road Map
- Authentication Policies
- Authorization Policies
- Resources
- Wildcard Patterns
- URL Query String Parameter List
- Resource Matching Algorithm
- Path Matching
- Path Matching: Examples
- Query String Matching
- Query String Matching: Examples
- Operation Matching
- What Are Responses?
- Responses
- Response Expressions
- Response: Examples

- Response Providers
- Authorization Condition and Rules
- Road Map
- Introduction to Detached Credential Collector
- Main Benefits of Detached Credential Collector
- Different DCC Deployment Architecture
- Request Flow with Detached Credential Collector
- Request Flow with Detached Credential Collector and Resource WebGate
- Configuring WebGate as DCC
- Detached Credential Collector
- Resource WebGate
- Authentication Scheme Parameters
- Authentication Policy for DCC
- Multifactor Authentication for DCC
- Multifactor Authentication
- Error Processing
- Switch from ECC to DCC
- DCC: Enhancements
- High-Level Feature Flow
- Road Map
- Policy Administration REST APIs
- Request and Response
- Resource URL
- Policy Administration REST WADL File
- URLs for Policy Artifacts
- Error Codes
- Resource URL: Example
- How to Run CURL Commands: Examples
- Getting an Application Domain
- Creating an Application Domain
- Creating a Resource and Retrieving All Resources from an Application
- Domain: Examples
- Quiz
- Summary
- Practice 5: Overview

Single Sign-On and Session Management

- Objectives
- Road Map
- Oracle Access Management Single Sign-On
- Oracle Access Management Single Sign-On Scenario
- Oracle Access Management Single Logout Scenario
- Road Map
- Session and Cookie Creation in Authentication
- Session and Cookie Usage After Successful Authentication

- OAM Session and OAM_ID Cookie
- Agent Cookies
- Single Sign-On Cookie Reference
- Cookie and Communication Security
- Session and Cookies in Single Logout
- Road Map
- Session Life Cycle
- Session Timeouts
- POST Data Preservation and Restoration
- Resource WebGate Support for POST Data Preservation
- Credential Collector Support for POST Data
- POST Data Size Limits
- Road Map
- Session Caching and Persistence
- Road Map
- Configuring Single Sign-On: Overview
- Road Map
- Default Login Page
- Default Login and Logout Pages
- Default Login/Logout Pages
- Options for Displaying the Single Sign-On Login Page by Using
- Form-Based Authentication
- Configuring an Authentication Scheme for a Customized Login Page
- Customizing Logout
- Logout Configuration for Detached Credential Collector
- Road Map
- Configuring Session Management Options
- Managing Sessions
- Road Map
- What Is Impersonation?
- Guidelines for Impersonation
- Impersonation
- Setting Up Impersonation
- Testing Impersonation
- Road Map
- Windows Native Authentication
- User Validation Replacing Credential Collection in WNA
- Configuring an Oracle Access Management Deployment for WNA
- Quiz
- Summary
- Practice 6 Overview: Examining Single Sign-On and Managing Sessions

Using Oracle Access Management with WebLogic Applications

- Objectives
- Road Map

- Java EE Authentication and Authorization
- Using OAM for Perimeter Authentication and Authorization with a WebGate
- Using OAM for Perimeter Authentication Without a WebGate
- Road Map
- Identity Assertion Providers
- Oracle Access Management Identity Assertion Provider
- OAM Identity Assertion Provider Event Sequence
- Road Map
- OAM Authenticator
- Quiz
- Summary
- Practice 7 Overview: Using an Identity Assertion Provider

Auditing and Logging

- Objectives
- Road Map
- Auditing: Overview
- Logging: Overview
- Road Map
- Fusion Middleware Audit Framework
- Audit Output Options
- Audit Architecture Using a Database as the Audit Store
- Deploying Auditing by Using a Database as the Audit Store
- Audit Settings
- Road Map
- Audited Events: Examples
- Data Recorded When an Audited Event Occurs: Examples
- Oracle Business Intelligence Publisher
- Deploying BI Publisher to Support FMW Audit Framework and Oracle
- Access Management Reports
- Generating Oracle BI Publisher Reports
- Road Map
- Administrator Tasks: Logging
- Logging Configuration Objects
- Log Levels
- Oracle Access Management Loggers and Log Level Inheritance
- Log Handler Settings
- Logging Configuration Tools
- Viewing the Logging Configuration by Using FMW Control
- Modifying Log Level by Using FMW Control
- Creating or Configuring Log Handlers by Using FMW Control
- Using the WLST Tool to Configure Logging
- Road Map
- Locating Log Files
- Viewing and Downloading Log Files by Using FMW Control

- Road Map
- Log Files from Related Products in an Oracle Access Management
- Deployment
- Quiz
- Summary
- Practice 8 Overview: Auditing and Logging

Diagnostics and Troubleshooting

- Objectives
- Road Map
- Access Tester: Overview
- Access Tester: Use Cases
- Access Tester: Core Functionality
- Access Tester Architecture
- Test Cases and Test Scripts
- Access Tester Simulating Steps 1, 3, 5, and 6 of Agent and OAM Server
- Interaction
- Output Files and Security Features
- Starting the Access Tester
- System Properties
- Access Tester Console
- Road Map
- Using the weblogic.Admin Utility to Check the State of Servers
- Examining Admin Server and Managed Server Logs
- WebLogic Server Thread Dump
- Agent and Server Monitoring in the OAM Console
- OAM Proxy Errors
- Configuration Data
- Road Map
- Frequently Observed Issues
- LDAP Server
- OAM Runtime Servers
- Agent-Side Issues
- Runtime DB Issues
- Admin Change Propagation and Activation
- Policy Repository DB Issues
- Road Map
- WLST Architecture
- Offline and Online Modes
- Executing WLST Commands
- Python Script with an Embedded WLST Command to Create an Identity
- Store: Example
- WLST Commands for OAM 12c
- Road Map
- Oracle Enterprise Manager Fusion Middleware Control

- FMW Control: Performance Overview
- Fusion Middleware Control MBean Browser
- Quiz
- Summary
- Practice 9 Overview: Working with the Access Tester, WLST, and FMW
- Control

Hybrid OAM—IDCS Solution

- Objectives
- Road Map
- Introduction to Oracle Identity Cloud Service (IDCS)
- Authentication Features in IDCS
- Road Map
- The Hybrid Access Management Use Case
- OAM as an Identity Provider for IDCS
- Road Map
- Set Up OAM as an IDP for IDCS
- Log In to IDCS Using OAM Credentials
- Summary