

S Oracle AI Database@AWS Architect Professional LVC

OEM: Oracle • Code: D1114358GC10

COURSE DESCRIPTION

This course covers Multicloud Introduction, Multicloud Use Cases, What is Oracle Database@AWS?, Onboard Prerequisites for Oracle Database@AWS, Requesting Purchase Offer for Oracle Database@AWS, Link to Oracle Database@AWS, Getting Started with Oracle Database@AWS, Service Responsibilities for Oracle Database@AWS, Oracle Database Services for Oracle Database@AWS, Oracle Database@AWS, Create Oracle Exadata Infrastructure for Oracle Database@AWS, Create Oracle VM Clusters for Oracle Database@AWS, Provision Oracle Exadata Databases for Oracle Database@AWS, Provision Oracle Autonomous Container Database for Oracle Database@AWS, Provision Oracle Autonomous Databases for Oracle Database@AWS, Connectivity to Oracle Databases in Oracle Database@AWS, Connecting to Oracle Databases in Oracle Database@AWS, Oracle Database@AWS, Oracle Database@AWS, Oracle Database@AWS, Identity and Access Management, Troubleshooting Identity & Access, Data Protection, Security and Compliance, Zero-Downtime Migration: Overview, ZDM Intermediate Storage Options in AWS, ZDM Physical Offline Migration to ExaDB-D on Oracle Database@AWS, ZDM Physical Online Migration to ExaDB-D on Oracle Database@AWS, ZDM Logical Offline Migration to ExaDB-D on Oracle Database@AWS, Oracle Cloud Infrastructure, Oracle Cloud Infrastructure, Oracle Cloud Infrastructure, Backup Destinations for Oracle Database@AWS, Backup Oracle Databases for Oracle Database@AWS, Restore Oracle Databases for Oracle Database@AWS, Autonomous Recovery Service for Oracle Database@AWS, Implement Autonomous Recovery Service for Oracle Database@AWS, High Availability in Oracle Database@AWS, Disaster Recovery in Oracle Database@AWS, Monitoring and Logging Oracle Database@AWS, Best Practices for Operational Efficiency, Best Practices for Reliability & Resilience, Best Practices for Performance & Cost Optimization, Best Practices for Security.

AUDIENCE PROFILE

- IT professionals and technical staff seeking hands-on training in this course's subject area.

PREREQUISITES

- No prior knowledge or experience is required.

COURSE OBJECTIVES

By the end of this course, participants will be able to:

- Understand and apply the concepts covered under "Multicloud Introduction"
- Understand and apply the concepts covered under "Multicloud Use Cases"
- Understand and apply the concepts covered under "What is Oracle Database@AWS?"

- Understand and apply the concepts covered under "Onboard Prerequisites for Oracle Database@AWS"
- Understand and apply the concepts covered under "Requesting Purchase Offer for Oracle Database@AWS"
- Understand and apply the concepts covered under "Link to Oracle Database@AWS"
- Understand and apply the concepts covered under "Getting Started with Oracle Database@AWS"
- Understand and apply the concepts covered under "Service Responsibilities for Oracle Database@AWS"
- Understand and apply the concepts covered under "Oracle Database Services for Oracle Database@AWS"
- Understand and apply the concepts covered under "Oracle Database@AWS"
- Understand and apply the concepts covered under "Create Oracle Exadata Infrastructure for Oracle Database@AWS"
- Understand and apply the concepts covered under "Create Oracle VM Clusters for Oracle Database@AWS"
- Understand and apply the concepts covered under "Provision Oracle Exadata Databases for Oracle Database@AWS"
- Understand and apply the concepts covered under "Provision Oracle Autonomous Container Database for Oracle Database@AWS"
- Understand and apply the concepts covered under "Provision Oracle Autonomous Databases for Oracle Database@AWS"
- Understand and apply the concepts covered under "Connectivity to Oracle Databases in Oracle Database@AWS"
- Understand and apply the concepts covered under "Connecting to Oracle Databases in Oracle Database@AWS"
- Understand and apply the concepts covered under "Oracle Database@AWS"
- Understand and apply the concepts covered under "Oracle Database@AWS"
- Understand and apply the concepts covered under "Oracle Database@AWS"
- Understand and apply the concepts covered under "Identity and Access Management"
- Understand and apply the concepts covered under "Troubleshooting Identity & Access"
- Understand and apply the concepts covered under "Data Protection"
- Understand and apply the concepts covered under "Security and Compliance"
- Understand and apply the concepts covered under "Zero-Downtime Migration: Overview"
- Understand and apply the concepts covered under "ZDM Intermediate Storage Options in AWS"
- Understand and apply the concepts covered under "ZDM Physical Offline Migration to ExaDB-D on Oracle Database@AWS"
- Understand and apply the concepts covered under "ZDM Physical Online Migration to ExaDB-D on Oracle Database@AWS"
- Understand and apply the concepts covered under "ZDM Logical Offline Migration to ExaDB-D on Oracle Database@AWS"
- Understand and apply the concepts covered under "Oracle Cloud Infrastructure"
- Understand and apply the concepts covered under "Oracle Cloud Infrastructure"
- Understand and apply the concepts covered under "Oracle Cloud Infrastructure"
- Understand and apply the concepts covered under "Backup Destinations for Oracle Database@AWS"
- Understand and apply the concepts covered under "Backup Oracle Databases for Oracle Database@AWS"
- Understand and apply the concepts covered under "Restore Oracle Databases for Oracle Database@AWS"
- Understand and apply the concepts covered under "Autonomous Recovery Service for Oracle Database@AWS"
- Understand and apply the concepts covered under "Implement Autonomous Recovery Service for Oracle Database@AWS"
- Understand and apply the concepts covered under "High Availability in Oracle Database@AWS"
- Understand and apply the concepts covered under "Disaster Recovery in Oracle Database@AWS"
- Understand and apply the concepts covered under "Monitoring and Logging Oracle Database@AWS"
- Understand and apply the concepts covered under "Best Practices for Operational Efficiency"
- Understand and apply the concepts covered under "Best Practices for Reliability & Resilience"

- Understand and apply the concepts covered under "Best Practices for Performance & Cost Optimization"
- Understand and apply the concepts covered under "Best Practices for Security"

COURSE OUTLINE

Module 0

Multicloud Introduction

- Autonomous Database
- OCI Distributed Cloud offers exceptional flexibility and choice
- Multicloud Benefits
- OCI-Azure Interoperability
- Oracle Database@Google Cloud
- Oracle and Google Cloud deliver Oracle database services on OCI in Google Cloud datacenters
- Oracle Database@AWS
- Oracle and Amazon Web Services deliver Oracle database services on OCI in AWS datacenters
- Oracle Database Multicloud Solutions — in all leading hyperscalers
- To wrap up ...

Multicloud Use Cases

- Objectives
- Oracle Database Multicloud Capabilities Help Enterprises Modernize
- The Same Oracle Database Capabilities — available everywhere
- Oracle Database Multicloud Solutions – the best of both worlds
- Oracle Interconnect for Azure
- Oracle Interconnect for Google Cloud
- Key Oracle Database Multicloud Use Cases
- Move to Cloud – Lift & shift without refactoring
- Move to Cloud – key differentiators and benefits
- Build Innovative Applications with Cloud-First Capabilities
- Build Innovative Applications – key differentiators and benefits
- Reduce Complexity and Cost
- Reduce Complexity and Cost – key differentiators and benefits
- Fidelity Investments is a privately held global financial services company headquartered in Boston, Massachusetts. Found
- Summary

Module 1

What is Oracle Database@AWS?

- Objectives
- Oracle Database@AWS Benefits
- Oracle Database@AWS Architecture – OCI Child Site

- Oracle Database@AWS Architecture – Exadata Infrastructure
- Oracle Database@AWS Architecture – ODB Network
- Oracle Database@AWS Architecture – ODB Peering
- Comparing Oracle Database@AWS Database Services
- Summary

Onboard Prerequisites for Oracle Database@AWS

- Objectives
- What is Onboarding Oracle Database@AWS?
- Prerequisite to Onboarding Oracle Database@AWS
- AWS Account
- Policies
- Onboard Tasks by AWS Users
- OCI Tenancy Account
- Summary

Requesting Purchase Offer for Oracle Database@AWS

- Objectives
- Request Offer for Oracle Database@AWS
- Request Private Offer
- View Private Offer
- Purchase Private Offer
- Summary

Link to Oracle Database@AWS

- Objectives
- Linking to Oracle Database@ AWS
- Activate Oracle Database@AWS Subscription
- Verify Subscription Mapping
- Verify Limits
- Verify the Compartment for Oracle Database@AWS Resources
- Oracle Database@AWS Dashboard
- Summary

Module 2

Getting Started with Oracle Database@AWS

- Objectives
- Resources for Oracle Database@AWS
- Oracle Database Network – ODB Network
- Oracle Exadata infrastructure for Oracle Database@AWS
- Oracle VM Clusters
- Oracle Database Services in Oracle Database@AWS
- ODB Peering

- Summary

Service Responsibilities for Oracle Database@AWS

- Objectives
- Oracle Database@AWS
- Transfer more responsibility to the service while lowering costs
- Shared Responsibility
- Summary

Oracle Database Services for Oracle Database@AWS

- Objectives
- Oracle Database Services in Oracle Database@AWS
- Autonomous Database on Oracle Database@AWS
- Autonomous Database on Dedicated Exadata Infrastructure
- Exadata Database on Oracle Database@AWS
- Complete Oracle Database & Exadata capabilities in the cloud
- Automated Scaling
- Summary

Oracle Database@AWS

- Objectives
- Oracle Database Network (ODB)
- High-Level Architecture
- High-Level Architecture – Single Availability Zone
- Detailed Architecture – Single Availability Zone
- Oracle Database Network (ODB) OCI Resources
- AWS ODB Peering – GA Capability
- AWS Hub and Spoke Design
- A default Amazon VPC Lattice service network is launched automatically when the ODB Network is created
- VPC Lattice Integration
- Key functionalities of VPC Lattice with ODB Network
- Make sure to select the check box that deletes the OCI-related resource. Deleting these resources manually results in a
- Summary

Create Oracle Exadata Infrastructure for Oracle Database@AWS

- Objectives
- Resources for Oracle Database@AWS
- Creating Resources for Oracle Database@AWS by Role and by Task
- AWS Dashboard
- Create Exadata Infrastructure for Oracle Database@AWS
- Exadata Infrastructure for Oracle Database@AWS
- Summary

Create Oracle VM Clusters for Oracle Database@AWS

- Objectives
- SSH Keys for Oracle VM Clusters
- Create VM Clusters for Oracle Database@AWS
- Create Exadata VM Cluster for Oracle Database@AWS
- Exadata VM cluster
- Create Autonomous VM Cluster for Oracle Database@AWS
- Autonomous VM Cluster for Oracle Database@AWS Details
- Autonomous VM Cluster
- Summary

Provision Oracle Exadata Databases for Oracle Database@AWS

- Objectives
- Create Exadata Database
- Summary

Provision Oracle Autonomous Container Database for Oracle Database@AWS

- Objectives
- Create Autonomous Container Database
- Autonomous Container Database
- Summary

Provision Oracle Autonomous Databases for Oracle Database@AWS

- Objectives
- Create Autonomous Database
- Autonomous Database
- Summary

Connectivity to Oracle Databases in Oracle Database@AWS

- Objectives
- Connecting to Oracle Databases in Oracle Database@AWS
- Network for Connecting to Oracle Database@AWS
- Obtain Client Credentials for Connection
- Summary

Connecting to Oracle Databases in Oracle Database@AWS

- Objectives
- Connecting to Oracle Database@AWS with an EC2 instance
- Summary of EC2 instance
- Configure Client Connection for Database@AWS
- Configure Client Connection
- Obtain Client Credentials
- Oracle Tnsnames.ora
- Resolving service names during database connections.
- Connecting to Oracle Database in Database@AWS

- Accessing data from Oracle Database
- Summary

Module 3

Oracle Database@AWS

- Objectives
- DNS Configuration – Big Picture
- DNS Configuration – ODB Network
- DNS Resolution – Oracle Database
- ODB Network – Configuring Endpoints
- ODB Network
- OCI Custom Domain Name and Private Resolvers' Endpoint
- Summary

Oracle Database@AWS

- Objectives
- AWS Hub and Spoke Design
- Oracle DB@AWS Hub and Spoke Design – Single Region/Single Account
- Amazon S3
- AWS Hub-and-Spoke Third Party Firewall
- AWS Hub-and-Spoke On-Premises Applications Topology
- AWS Cloud WAN for Oracle Database@AWS
- Summary

Oracle Database@AWS

- Objectives
- Cross-Region Object Storage Replication Option for User Implementation
- Oracle RAC & Oracle Active Data Guard
- Exadata Database Service@AWS | MAA Gold Level - cross-AZs
- Oracle Active Data Guard for ExaDB-D on Oracle Database@AWS
- What is included in Gold MAA on Oracle Database@AWS?
- Exadata Database Service@AWS | MAA Gold Level - cross-regions
- Exadata Database Service@AWS | Active Data Guard Far Sync
- Exadata Database Service@AWS | Local and Remote Standby
- Exadata Database Service@AWS | Two Remote Standbys
- Configure Oracle Active Data Guard in OCI Console
- Summary

Module 4

Identity and Access Management

- JSON Policy Document Structure

- AWS Identity-based policy elements
- Sample Identity-based Policy
- Auto-Created OCI Policies during Onboarding
- IAM Feature Support in Oracle Database@AWS
- To wrap up...

Troubleshooting Identity & Access

- Troubleshooting OD@AWS Identity & Access
- To wrap up...

Data Protection

- Data Security
- To wrap up...

Security and Compliance

- Oracle Database@AWS Security
- Securing Your Databases
- Encryption: OCI Vault
- Oracle Database@AWS Compliance Certifications
- To wrap up...

Module 5

Zero-Downtime Migration: Overview

- Free end-to-end Oracle Database migration automation tool
- Migrate Oracle Database on release 11.2.0.4 and above
- ZDM
- Source
- Migration Method
- To wrap up...

ZDM Intermediate Storage Options in AWS

- Oracle Advanced Cluster File System (ACFS)
- NFS Server on AWS EC2 VM
- Amazon S3 Storage Gateway
- Amazon Elastic File System
- Amazon FSx for OpenZFS
- To wrap up...

ZDM Physical Offline Migration to ExaDB-D on Oracle Database@AWS

- ZDM Physical Offline Migration to ExaDB-D on Oracle Database@AWS
- To wrap up...

ZDM Physical Online Migration to ExaDB-D on Oracle Database@AWS

- ZDM Physical Online Migration to ExaDB-D on Oracle Database@AWS
- To wrap up...

ZDM Logical Offline Migration to ExaDB-D on Oracle Database@AWS

- ZDM Logical Offline Migration to ExaDB-D on Oracle Database@AWS
- To wrap up...

Oracle Cloud Infrastructure

- ZDM Logical Online Migration to ExaDB-D on Oracle Database@AWS
- To wrap up...

Oracle Cloud Infrastructure

- ZDM Logical Offline Migration to ADB-D on Oracle Database@AWS
- To wrap up...

Oracle Cloud Infrastructure

- ZDM Logical Online Migration to ADB-D on Oracle Database@AWS
- To wrap up...

Module 6

Backup Destinations for Oracle Database@AWS

- Objectives
- Destinations for Automated Backup
- Create Oracle Object Storage
- Zero Data Loss Autonomous Recovery Service (ZRCV)
- Summary

Backup Oracle Databases for Oracle Database@AWS

- Objectives
- Automatic Backup for Exadata database
- Configure Automatic Backup
- Backup Exadata Database
- Backup for Autonomous database for Oracle Database@AWS
- Configure Backup Settings for the Databases in Autonomous Container Database
- Automatic Backup for Autonomous Database
- Manual Backup Autonomous Database
- Backup Autonomous Database – Manual and Long Term
- Autonomous Database – Manual Backup
- Autonomous Database – Long Term Backup
- Summary

Restore Oracle Databases for Oracle Database@AWS

- Objectives

- Restore Exadata Database
- Restore Autonomous Database
- Summary

Autonomous Recovery Service for Oracle Database@AWS

- Objectives
- Zero Data Loss
- Space-Efficient Encrypted Backups
- ZRCV as an Immutable Service
- Database-Integrated, Continuous Anomaly Detection
- Summary

Implement Autonomous Recovery Service for Oracle Database@AWS

- Objectives
- Prerequisites for Recovery Service
- Configure Automatic Backups
- Policy-Based Backup
- Policy-Based Backup Location
- Monitoring Autonomous Recovery Service
- Fast, Database-Integrated Restore to Any Point-in-Time
- Restore with Autonomous Recovery Service
- Summary

Module 7

High Availability in Oracle Database@AWS

- Oracle Database Foundational High Availability Architecture
- High Availability in Exadata Database Service in Oracle Database@AWS
- High Availability in Autonomous Database Dedicated in Oracle Database@AWS
- To wrap up...

Disaster Recovery in Oracle Database@AWS

- OCI Autonomous Recovery Service (RCV)
- Oracle Active Data Guard
- Cross-AZ Disaster Recovery for Oracle ExaDB-D in Oracle Database@AWS
- Cross-AZ Network Traffic Options for Disaster Recovery in Oracle Database@AWS
- Cross-Region Disaster Recovery for Oracle ExaDB-D in Oracle Database@AWS
- Cross-Region Network Traffic Options for Disaster Recovery in Oracle Database@AWS
- Availability SLOs
- To wrap up...

Module 8

Monitoring and Logging Oracle Database@AWS

- Monitoring Resource Metrics Using Amazon CloudWatch
- Metrics Monitored for ExaDB-D Resources
- Monitoring Resource Events Using Amazon EventBridge
- Oracle Database@AWS Events and Filtering
- Logging OD@AWS API Calls Using AWS CloudTrail
- To wrap up...

Module 9

Best Practices for Operational Efficiency

- Operational Efficiency: Best Practice #1
- Operational Efficiency: Best Practice #2
- Operational Efficiency: Best Practice #3
- Operational Efficiency: Best Practice #4
- Operational Efficiency: Best Practice #5
- Operational Efficiency: Best Practice #6
- Operational Efficiency: Best Practice #7
- Operational Efficiency: Best Practice #8
- Operational Efficiency: Best Practice #9
- To wrap up...

Best Practices for Reliability & Resilience

- Reliability & Resilience: Best Practice #1
- Reliability & Resilience: Best Practice #2
- Reliability & Resilience: Best Practice #3
- Reliability & Resilience: Best Practice #4
- Reliability & Resilience: Best Practice #5
- Reliability & Resilience: Best Practice #6
- Reliability & Resilience: Best Practice #7
- To wrap up...

Best Practices for Performance & Cost Optimization

- Performance & Cost Optimization: Best Practice #1
- Performance & Cost Optimization: Best Practice #2
- Performance & Cost Optimization: Best Practice #3
- Performance & Cost Optimization: Best Practice #4
- Performance & Cost Optimization: Best Practice #5
- Performance & Cost Optimization: Best Practice #6
- Performance & Cost Optimization: Best Practice #7
- Performance & Cost Optimization: Best Practice #8
- Performance & Cost Optimization: Best Practice #9
- To wrap up...

Best Practices for Security

- Security: Best Practice #1
- Security: Best Practice #2
- Security: Best Practice #3
- Security: Best Practice #4
- Security: Best Practice #5
- Security: Best Practice #6
- Security: Best Practice #7
- Security: Best Practice #8
- Security: Best Practice #9
- To wrap up...