Oracle Database Cloud Migration Professional 2024 ELS

Oracle Cloud Infrastructure

DURATION	MODULES	COURSE CODE
2 Days	**10 Lectures**	**—**

Course Overview

Zero Downtime Migration (ZDM) Techniques: Discover advanced methods such as ZDM to maintain business continuity and minimize disruptions during migration processes.

What You Will Learn

Module 1: Introduction to Oracle Database Cloud Migration

- Oracle Database Cloud Migration Overview
- Why Migrate?
- Oracle Database Cloud Services Portfolio in OCI
- Migration Strategies
- Migration Steps Overview
- Target Database Environment in OCI
- The Future of Databases in Oracle Cloud

Module 2: Migration Planning and Assessment

- Migration Process Objectives
- Migration Challenges
- Migration Methods: Offline, Online, Physical, Logical
- Cloud Migration Advisor
- Load Estate Information
- Landscape Overview
- Add New Target Server
- Scenarios & Solution Methods
- Cloud Pre-Migration Advisor Tool (CPAT)
- Assess and Evaluate
- Source and Target Options in OCI
- OCI Database Migration Use Cases
- Supported Database Versions and Targets

Module 3: Oracle Zero Downtime Migration (ZDM)

- ZDM Overview, Support, and Objectives
- Key Availability Technologies in Autonomous Database
- Deployment Options: Shared vs Dedicated Infrastructure
- Physical Migration of AWS RDS Oracle Database to OCI
- AWS Instance Preparation & Backup
- Transfer to OCI Object Storage
- Restore on OCI DBCS Instance
- PDB Compatibility, Error Resolution, Tablespace Encryption
- ZDM Tool: History, Evolution, and Configuration
- Technical Architecture & Workflow
- Physical and Logical Online Migration Step-by-Step
- Migration from AWS RDS to OCI Autonomous Database via Data Pump

Module 4: OCI Database Migration Service (DMS)

- OCI DMS Overview and Features
- Database Connection Setup
- Direct Online Migration Steps
- Indirect Offline Migration Steps
- Pricing & Use Cases (Free for Common Use Cases)
- MySQL Database Migration with OCI DMS

Migration Workflow: Select DB → Register → Create → Validate → Start → Switchover

Module 5: Multitenant Database Migration Methods

- Migration Methods for Multitenant Databases
- Requirements and Business Drivers for Cloud Database
- Comparing Database Consolidation Architectures
- Classic vs Multitenant Architecture
- Manage Many Databases as One
- Multitenant Advantages
- Remote Cloning, PDB Hot Clone, Refreshable PDB
- Online PDB Relocation
- Unplug/Plug Migration and Upgrades

Module 6: Data Pump and Transportable Tablespaces

- Data Pump Concepts, Considerations, and Best Practices
- Transportable Tablespaces: Overview, Constraints, Nice-to-Know
- OCI GoldenGate for Migrations
- Concepts, Deployment, Connections, Topology, Network Requirements
- Zero Downtime Database Upgrade Implementation

Module 7: RMAN and Backup-Based Migrations

- RMAN Duplicate from Active Database
- Environment Verification & Final Preparation
- Cross-Platform Cloud Migrations
- Using Oracle Database Cloud Backup Service
- On-Premises Backup to OCI Object Storage
- Stand-Alone Backup
- RMAN Encryption
- Planning Migration to Cloud Database Instances (Exadata/Base Database)

Module 8: Data Loading and Integration Tools

- SQL Developer Web
- Executing Scripts, Importing Local Files, Loading JSON Documents
- SQLcl Data Loading & Data Pump
- CloudShell and Liquibase Integration
- Oracle REST Data Services (ORDS)
- Batch CSV Load, SODA for REST, REST-Enabled SQL

Module 9: Database Migration Workbench

- Overview and Benefits
- Supported Critical Migration Scenarios
- Workflow and Landscape
- Analyze Migration Workflow
- Post-Migration Recommendations

Module 10: Post-Migration Management

- Autonomous Backup Configuration
- Autonomous Backup via Database Console
- Database Management Service Overview
- Performance Hub and Monitoring
- OCI Stack Monitoring Service
- Host Performance Visibility and Cross-Service Alarms