

Oracle Data Platform Foundations Associate (2025)

Oracle Cloud Infrastructure

DURATION

2 Days

MODULES

12 Lectures

COURSE CODE

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Course Overview

This course also prepares you for the Oracle Data Platform 2025 Foundations Associate certification!

What You Will Learn

Module 1: Simply Complete and Completely Simple Data Management

- Oracle Data Management: Customer Benefits
- Agenda Overview
- Simply Complete for Any Data, Workload, Development Style
- Completely Simple Cloud Native Development
- Simply Complete Mission-Critical Capabilities
- Completely Simple for Running All Modern Apps
- Big Picture: Oracle Data Management
- Automating Data Management for All

Module 2: Oracle Autonomous Database

- Overview of Oracle Autonomous Database

Autonomous Transaction Processing (ATP) & Autonomous Data Warehouse (ADW) Reduces TCO

- Manual vs Automated Migration to Autonomous Database
- Easing the Path to Oracle Autonomous Database
- Multi-Cloud and Hybrid Cloud Environments
- Multicloud Strategy & Connecting the Clouds
- Oracle/Microsoft Partnership
- Oracle Converged Database

Module 3: Modern App Requirements & Converged Database

- Modern App Development Methodologies
- Alternative Approaches: Advantages & Disadvantages

- Managing Complexity in Modern Apps
- Converged Database Concepts
- Built-in Developer Technology
- Pluggable Databases & Microservice Architectures
- Transaction Processing and Data Warehousing
- Autonomous Data Warehouse for Fast Insights
- Oracle Autonomous JSON Database
- JSON Storage & Compatibility
- SQL Queries on JSON
- Pricing and Performance

Module 4: Advanced Data Management in Autonomous Database

- Bridging JSON and Relational Worlds
- Document Store & Oracle API for MongoDB
- Relational Model & SQL Integration
- Developing with Graph Analytics
- Graph Concepts, Modeling, Analysis, Prebuilt Algorithms
- Spatial Data Management in ADB
- Spatial Studio, Analysis, Visualization, Publishing

Module 5: Oracle Base Database Service

- Overview of Base Database Service
- Automated Database Lifecycle Operations
- Licensing Models & OCPU Consumption Options
- Virtual Machine Database Systems
- Storage Architecture & Availability Domains
- Oracle Maximum Availability Architecture (MAA) Components
- Integrated Security from Data to Identity

Module 6: Exadata Database Service

- Service Overview & Deployment Locations
- Dedicated Infrastructure & Cloud@Customer
- Cloud Management Responsibilities
- Automated Lifecycle Operations
- Hybrid Cloud Architecture & Resiliency
- Billing & Licensing Models
- Security & Operator Access Control (OpCtl)
- Database Lifecycle Management
- Creating Database Homes & Databases
- Data Guard & Disaster Recovery
- Backup & Recovery, Customer-Managed Keys
- Grid Infrastructure & Database Upgrades
- OS Image Updates

Module 7: Getting Started with Autonomous Database

- Objectives & Overview
- Complete Database Automation & High Availability
- Key Features of Autonomous Database
- Auto Scaling & Serverless Provisioning
- Starting and Stopping ADB
- Dedicated Infrastructure & Deployment Choices
- Cloud@Customer Benefits
- AI in Autonomous Database
- Select AI, Demonstration, Translating Natural Language to SQL
- AI Vector Search
- Vector Embeddings, SQL Integration, Similarity Search, Gen AI Pipelines

Module 8: Data Lakehouse on OCI

- Use Case Profiles & Lakehouse Introduction
- Five Key Lakehouse Elements
- Data Connection and Curation for Business Outcomes
- Data Warehouse for Structured Data
- Object Storage for Semi- & Unstructured Data
- Data Catalog Integration
- Data Lakehouse in Action
- Cloud-Based Analytics Solutions
- Oracle Machine Learning (OML)
- Horizontal and Vertical Use Cases
- Data Mesh Architecture
- Concepts, Engagement, Digital Capital, Hidden Data Economy
- Data Strategy & Architecture Principles

Module 9: Managing Autonomous Database with REST APIs

- Using REST APIs for Database Management
- Benefits of Built-In Tools for All Players
- Data Loading and Transformation
- Business Models & Analytics
- Performance Optimization via Business Models
- CI/CD for APEX and Oracle Database
- SQLcl, Liquibase, Terraform
- Development, Deployment, Rollback

Module 10: Database Security and Maximum Security Architecture

- Protecting the Oracle Database
- Security Zones of Control
- Baseline Security & Maximum Security Architecture
- Oracle Maximum Availability Architecture (MAA)

- Reference Architectures, Chaos Engineering
- Key Features: Oracle RAC, Transparent Application Continuity, Active Data Guard
- Hybrid Cloud Recommendations
- Multicloud MAA Gold Tier Example

Module 11: Database Migration to OCI

- Why Migrate?
- Oracle Cloud Services Portfolio
- Migration Strategies & Steps
- Cloud Pre-Migration Advisor Tool (CPAT)
- Migration Products & Tools
- Database Upgrade Best Practices
- Performance, Statistics, AutoUpgrade, Fallback
- Lifetime Support, Patches, Post-Upgrade Considerations

Module 12: Oracle Cloud Database Services Exam Prep

- MySQL Database Service
- Open-Source vs Enterprise, Third-Party Clouds
- Ease of Use, Security, Enterprise Readiness
- Provisioning, Connecting, Managing, Monitoring
- HeatWave
- Architecture, Loading Data, Running Queries, Start/Stop Clusters
- Oracle NoSQL Database Cloud Service
- Licensing, Throughput, Multi-Model, Feature Overview
- Fully Managed Cloud Service
- Oracle Cloud Customer Connect