Oracle Cloud Infrastructure Observability Professional (2025): Hands-on Workshop

Oracle Cloud Infrastructure

DURATION	MODULES	COURSE CODE
2 Days	**7 Lectures**	**—**

Course Overview

After completing this course, you should be able to: Explain the OCI Observability and Management overview and architecture. Aggregate and analyze metrics, logs, traces, events, and custom data centrally. Construct a unified view of the software stack to improve visibility. Evaluate observability data using operations-optimized machine learning. Identify anomalous behavior through clustering and pattern recognition. Monitor and assess application performance and the digital experience. Administer and oversee Oracle Databases seamlessly across boundaries. Analyze capacity, forecast usage, and performance.

What You Will Learn

Module 01: Pillars of Observability

- What is Observability
- Traditional Monitoring & Challenges
- Definition of Observability
- Comparing Monitoring and Observability
- Introducing Observability and Management Services
- Use Case: Observability and Management in DevOps

Module 02: Monitoring Service

- Monitoring Service Overview
- OCI Monitoring Service: Getting Started
- Monitoring Capabilities & Workflow
- Monitoring Concepts: Metrics, Intervals, Resolutions, Statistics
- Alarms and Metric Query Components
- Hands-on Demos:
- Monitoring Concepts
- Alarms
- Notifications Service Overview & Creating a Topic

- Best Practices for Alarms and Notifications
- Access and Limits
- Ways to Access Monitoring
- IAM Policies & Restricted Access
- Limits of Monitoring Service
- Metric Queries: Building, Nested, Sample Queries
- Hands-on Demo: Metric Queries

Module 03: Logging Service

- Logging Service Overview
- OCI Logging Service: Types of Logs
- Service Flow and Logging Concepts
- Log Groups, Service Logs, Service Log Format
- Object Storage Logs, Load Balancer Logs, VCN Flow Logs
- Hands-on Demo: Service Logs
- Custom Logs & Unified Monitoring Agent
- Agent Communication Workflow & Configuration
- Hands-on Demo: Custom Logs
- Access & Explore Logs
- IAM Policies, Searching Logs, Viewing Log Events
- Logging Queries: Specification, Log Streams, Fields, Data Types, Operators
- Hands-on Demo: Logging Queries
- Connector Hub Overview, Workflow & Use Cases
- Hands-on Demo: Connector Hub
- Audit Logs
- OCI Audit Service, Viewing Events, IAM Policies
- Hands-on Demo: Audit Logs

Module 04: Events Service

- Events Concepts Overview
- Using Events vs Explicit Polling
- OCI Events Service Concepts
- Event Messages and Event Types
- Rule Actions & Destinations
- Integration with Services:
- Streaming Service, Oracle Functions, Notifications Service
- Hands-on Demo: Rule Actions
- Working with Rules:
- Creating Rules, Configuring in OCI Console, Metrics, Design Considerations
- Hands-on Demo: Working with Rules

Module 05: Log Analytics

- Log Analytics Overview
- From Raw Logs to Insights

- Key Benefits & Use Cases
- Onboarding Log Analytics & Data Flow
- Source Types & Collection Methods
- Roles: Users, Admins, Super Admins
- Hands-on Demo: Log Analytics Onboarding
- Log Data Management
- Governance, Access Controls, Storage Management
- Log Explorer and Dashboards
- Overview, User Interface, Hands-on Demo
- Entities and Log Sources
- Fields, Labels, Lookups
- Hands-on Demo: Log Sources
- Basic Analytics & Data Visualizations
- Filtering, Removing Noise, Hands-on Demo
- Query Language: Parts, Dissecting Queries, Hands-on Demo
- Log Cluster & Log Reduction
- Hands-on Demo: Log Clustering
- Link Analysis & Correlation
- Hands-on Demo: Link Analysis
- Log Ingestion: Management Agent, Service Connector, Object Storage
- Hands-on Demos: Log Ingestion with Agent, Service Connector, Object Storage

Module 06: Application Performance Monitoring (APM)

- APM Overview & Key Purposes
- Service Architecture & Fundamental Concepts
- Glance APM Features & Trace Explorer
- Hands-on Demo: Trace Explorer
- APM Domains & Data Sources
- Tracing:
- APM Tracer, Browser Agent, Java Agent, OpenTelemetry Operator for Kubernetes
- Monolithic vs Microservices Applications
- Fundamentals of Distributed Tracing
- Standards, Trace Data Collection, Key Characteristics
- Hands-on Demo: Access APM & Features
- Dashboards and Metrics
- Creating Custom Dashboards & Alarms for APM Metrics
- Application Performance Index (APDEX)
- Span Filters, Metric Groups, Custom Dimensions
- Real User Monitoring & Synthetic Monitoring
- Dedicated & On-Premises Vantage Points
- Hands-on Demos: Synthetic Monitoring & Dedicated Vantage Points

Module 07: Stack Monitoring

- Stack Monitoring Overview

Discovery and Monitoring of Applications and Infrastructure in Hybrid Environments

- Resource Home Pages & Enterprise Health
- Hands-on Demo: Stack Monitoring Overview
- Resource Discovery & Best Practices
- Hands-on Demo: Resource Discovery
- Monitoring Custom Resources
- Extending Out-of-the-Box Resource Types with Prometheus, Telegraf, Collectd
- Hands-on Demo: Monitoring Custom Resources
- Baselines and Anomalies
- ML-Based Baselines, Metric Extensions, Hands-on Demo
- Monitoring Templates & Maintenance Windows
- Hands-on Demos: Monitoring Templates, Maintenance Windows