

# Oracle Cloud Infrastructure (OCI) Course Content

Course Duration - 35-40 Hrs., 5-6 Weeks

### Course Information

**Course Duration** 

Weekday Batch Mon – Fri – 1.5 Hr./Day

Duration – 5-6 Weeks

**About the Trainer** 

OCI Architect with 15+ Years of Real Time Work Experience at

Top US Based Product and

**Consulting Firms** 

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# Introduction To Oracle Cloud Infrastructure Training

#### **Oracle Cloud Infrastructure**

Oracle Cloud Infrastructure (OCI) is a Next-gen IaaS that delivers on-premises, high-performance computing power to run cloud native and enterprise company's IT workloads. OCI provides real-time elasticity for enterprise applications by combining Oracle's autonomous services, integrated security, and serverless compute.

## What you'll learn

- > Most OCI concepts required for OCI Architect Associate & Professional Certification Exams.
- Learn Cloud Computing Concepts and OCI Architecture Hands on from OCI Industry Expert.
- Master OCI key services like Identity and Access Management (IAM), Compute, Storage etc.
- > Build expertise in OCI Core Services Networking, Database, Load Balancer, Security etc.
- Configure OCI Core Services for Real Time Use Cases
- ➤ Hands on deployment of wide variety of applications in OCI
- Deploy HA Application using Load Balancers
- EBS Cloud Manager in OCI
- OCI Messaging/Notification Service, Tagging, and Cost Management
- Provide guidance for OCI Architect Associate and Professional Certification Exams
- Provide support in Resume and Interview Preparation



### **Course Content**

## Module 1: Introduction to Cloud Computing

- What is Cloud Computing
- Service Models
- > High Availability
- Disaster Recovery
- Cloud Terminology
- ➤ How Cloud Computing converts CAPITAL EXPENDITURE to OPERATIONAL EXPENDITURE?

### Module 2: Oracle Cloud Infrastructure Architecture

- ➤ Why OCI?
- > OCI Global Footprint
- > OCI Architecture Regions, Availability Domains (AD) and Fault Domains (FD)
- OCI Regions with one AD regions
- What factors to consider while choosing a region?
- How to avoid single points of failure?
- How to design High Availability, Scale and Performance Network with in AD
- OCI Services Overview
- > High level overview of the course content



## Module 3: Oracle Cloud Account Sign Up Process & OCI Console Overview

- Oracle Cloud Account Sign Up Process for Free Tier Account
- Oracle Cloud Infrastructure Console Overview

## Module 4: Identity and Access Management (IAM)

- ➤ Identity and Access Management Principals, Users and Groups
- Authentication and Authorization in IAM
- ► IAM Policies, Policy Syntax and Verbs & Permissions
- > IAM Common Policies, Advanced IAM Policies & Advanced Policy Syntax
- > IAM Compartments, Policy Inheritance and Attachment for Compartments
- Moving Compartments and Policy Implications to consider while moving Compartments
- Understand how to use Tags and Audit Service effectively

### Module 5: Virtual Cloud Network (VCN)

- Introduction to Networking Concepts
- CIDR Basics
- > Introduction to Virtual Cloud Network
- ➤ IP Address range for VCN, Public and Private IP Addresses
- Subnets, Gateways and Route Tables
- Internet, NAT, Service, Dynamic Gateways
- Peering, Local and Remote Peering
- > Transit Routing, Hub and Spoke & private access
- Security List (SL) and Network Security Group (NSG)
- Stateful and Stateless Security Rules
- Virtual Cloud Network Summary



## Module 6: OCI Compute Service

- Introduction to OCI Compute Service
- > Bare Metal, VM and Dedicated Hosts
- Machine Images, Custom Images and Oracle Provided Images
- Image Import/Export, Bring your own Image (BYOI)
- Custom Boot Volume, Custom Image versus Boot Volume Backup
- Instance Configurations, Pools, Autoscaling
- Autoscaling Configurations
- > Instance Lifecycle and Metadata
- OCI Compute Service Summary

### Module 7: OCI Load Balancer

- Introduction to OCI Load Balancing Service
- Public and Private Load Balancer
- Regional Subnets and AD Specific Subnets
- Load Balancing Policies and Health Checks

## Module 8: Object Storage

- Introduction to OCI Storage Services
- Use cases for Object Storage usage
- Object Naming, Object Storage Tiers and Capabilities
- Object Storage Access and Authentication
- Object lifecycle management



#### Module 9: Block & Boot Volumes

- Introduction to OCI Storage Services
- Block Volume Service
- Creating and Attaching Block Volumes
- Detaching and Deleting Block Volumes
- Block Volume Resize, Back Up and Restoration
- Clone, Volume Groups & Boot Volumes

# Module 10: File Storage Service

- Introduction to OCI Storage Services
- File Storage Service Use Cases
- > File Storage service Features
- Mount Target
- > File System, FSS Paths, Mounting an OCI File System
- File Storage Service Security
- Security Lists, Export Option and Snapshots

#### Module 11: Databases

- Introduction to OCI Database Service
- Virtual Machine (VM) Database (DB) Systems
- > DB Systems VM, BM, Exadata
- Database Editions, Versions and Options
- Managing & Patching DB Systems
- Automatic Backup and Restore
- High Availability and Scalability
- Oracle Data Guard



#### Module 12: Autonomous Databases

- Introduction to OCI Database Service
- Getting Started with Autonomous Database
- Autonomous Database Options
- Autonomous Database Cloud Deployment Options
- > Autonomous Data Warehouse: Architecture
- > Autonomous Transaction Processing: Architecture
- Auto Scaling & Securing Autonomous Database (ADB)
- Autonomous Database Cloud Cloning

## Module 13: High Availability and Disaster Recovery

- Introduction to High Availability Concepts
- > Availability Domains & Fault Domains
- Avoid Single Points-of-Failure
- Regional and AD Specific Subnets
- > High Availability for OCI: Connectivity
- Configure Load Balancer for High Availability

## Module 14: Cost Management with Budgets and Quotas

- Create and Access OCI Budgets
- Set up Budgets Alert Emails
- Accessing Usage Reports
- Service Limits and Usage
- Compartment Quotas
- Quota Policies with Examples
- Cost Management Best Practices



## Module 15: OCI API, SDK, & CLI

- Different Ways to Access OCI
- Developer Tools with OCI
- Command Line Interface (CLI)
- Software Development Tool Kits (SDKs)
- Installing & Configuring Oracle Cloud Infrastructure CLI
- Working with OCI Services with CLI Check Connectivity
- Downloading and Configuring SDKs for OCI

## Module 16: OCI Database Cloud Backup Service

- Introduction to OCI Database Cloud Backup Service
- Backups via Cloud Tooling (Automatic and Manual)
- Command Line Tools (dbcli / bkup\_api / dbaascli)
- Manual RMAN Backups

### Module 17: OCI Monitoring and Notification Service

- Introduction to OCI Monitoring Service
- Metrics, Metric Queries & Alarms
- Use cases for OCI Monitoring Service
- Introduction to OCI Notification Service
- OCI Notifications Use Cases

## Module 18: Tagging in OCI

- Why do I need tags?
- > Tags Details & Tag Namespace
- Searching and Securing Tags
- Automating Tag Application
- Working with Defined Tags and Policies



## Module 19: Deploy Webserver in OCI

- Create VCN
- Launch Compute Instance
- Install Apache Web Server
- > Launch and access web server

# Module 20: Deploy HA Application using Load Balancers

- Create a Virtual Cloud Network
- Create Two Compute Instances and Install the Web Server
- Create Security List, Route table, and Additional Subnet
- Create Load Balancer and Update Security List
- Verify High Availability of HTTP Servers
- Delete the Resources

## Module 21: OCI Configuring Auto Scaling

- Generate SSH Keys
- Create VCN
- Create Load Balancer and Update Security List
- Configure instance pool and auto scaling
- Test the Autoscaling setups

### Module 22: Deploy EBS Cloud Manager in OCI

- Setup EBS Cloud Manager Authentication with Identity Cloud Service (IDCS)
- Create the EBS Cloud Manager Administrators group and user in IDCS
- Register Oracle E-Business Suite Cloud Manager as a Confidential Application in IDCS
- Deploy and Configure Oracle E-Business Suite Cloud Manager



## Module 23: Provision EBS in OCI using Cloud Manager

- Provision an EBS Environment Using One-Click Provisioning
- ➤ Enable and Set Oracle E-Business Suite Account Passwords
- Open Firewall and Security List to Allow Connections to EBS Environment
- Configure Local Hosts File and Log in to Oracle E-Business Suite

# Module 24: Security Best Practices in OCI

- Data Safe
- > OCI Auditing in an Autonomous Database
- Oracle Active Data Guard
- OCI Audit Service

## Module 25: Guidance on Certification and Resume Preparation, Interview and Job Assistance

- > Explain certification options available in OCI
- Provide tips on how to clear for OCI Architect Associate & Professional Certification
- > Help with Resume Preparation as OCI Infrastructure Specialist
- Discuss common interview questions in OCI