Oracle Cloud IaaS: Compute and Storage Fundamentals

Duration: 3 Days

What you will learn

This Oracle Cloud IaaS: Compute and Storage Fundamentals training gives students the necessary skills to create Oracle Linux virtual machine instances using Oracle Compute Cloud Service and to store large amounts of unstructured data in Oracle Storage Cloud Service. Students will learn how to use orchestrations and apply Oracle's best practices to create and manage instances and networking and storage resources.

With Oracle Compute Cloud Service, Students will Learn To:

Assign processor and memory resources from a range of resource profiles.

Automate VM provisioning and management workflows.

Create VM instances using Oracle-provided and custom machine images (Bitnami).

Provide a persistent boot disk for VM instances.

Exercise fine-grained control over network traffic.

Reserve and assign fixed public IP addresses.

Attach high-capacity block storage to instances.

Monitor and manage all resources through a unified interface.

Ensure secure access to instances.

With Oracle Storage Cloud Service, Students will Learn To:

Create a container in object storage to store data.

Set container metadata, such as ACLs and quota.

Create objects.

Upload files of size larger than 5 GB (preferably a Bitnami OS image).

Manage objects (listing, downloading, and deleting).

Benefits to You

Benefit by taking this training which supports Oracle Infrastructure as a Service (IaaS) Cloud Services. Oracle Compute Cloud Service is Oracle's flagship IaaS offering. Oracle Compute Cloud Service training will be coupled in this course with training for the Oracle Storage Cloud Service, which is an enterprise-grade, large-scale, object storage solution for files and unstructured data.

Audience

Cloud Administrator

Cloud User

Developer

System Administrator

Related Training

Required Prerequisites
Fundamental knowledge of Linux
Oracle Linux 5 & 6 System Administration

Course Objectives

Attach high-capacity block storage to instances
Monitor and manage all resources through a unified interface
Ensure secure access to instances
Create a container in object storage to store data
Set container metadata, such as ACLs and quota
Create and Manage objects on the Oracle Storage Cloud
Create VM instances using Oracle-provided and custom machine images
Provide a persistent boot disk for VM instances
Exercise fine-grained control over network traffic
Assign processor and memory resources from a range of resource profiles
Automate VM provisioning and management workflows
Reserve and assign fixed public IP addresses

Course Topics

Course Overview and Introduction to Oracle Linux
Course goals
Course schedule
The history of Linux
Linux distributions
Oracle Linux
UEK

Introduction to Virtualization
What is virtualization?
Virtualization concepts
Benefits of virtualization

Introduction to IaaS
What is IaaS?

IaaS concepts
IaaS benefits
How is IaaS used?
Oracle IaaS services

Introduction to Oracle Compute Cloud Service
Overview of Oracle Compute Cloud Service
Oracle Compute Cloud Service features
How is Oracle Compute Cloud Service used?

Introduction to Storage
What is storage?
Types of storage - local storage and cloud storage
Types of cloud storage - public, personal, hybrid
Types of storage - block storage, object storage, ephemeral storage

Introduction to Oracle Storage Cloud Service
Overview of object storage on the cloud
How does object storage work?
Benefits of object storage
About Oracle Storage Cloud Service
Accessing Oracle Storage Cloud Service
Installing Cygwin and cURL

Oracle Compute Cloud Service Instances
What is a VM?
What can I do with a VM?
How do I use Oracle Compute Cloud Service (introduction to the web console)
What do I need to do to create a VM?
What is an SSH Key?
How do I use an SSH Key?
How do I generate an SSH key pair?
Saving the private key and public key on your local host

Oracle Compute Cloud Service Block Storage Volumes
Workflow for using a block storage volume
Creating a block storage volume
Adding a block storage volume to your existing VM

Identifying the new storage volume
About file systems
Creating a file system on your storage volume
About Mount Points
Mounting the storage volume on your VM

Oracle Compute Cloud Service Bootable Storage Volumes
What is a bootable storage volume?
What is a machine image?
Creating a bootable block storage volume
Creating a VM with a bootable storage volume (using the web console)
Logging in to the VM to access the storage volume

Configuring Network Settings
Networking concepts
How do network settings work?
About security lists
About security rules
How does SSH access work?
Reserving a public IP address
Associating a public IP address with an existing VM
Creating a security list

Oracle Compute Cloud Service Orchestrations
What is an orchestration?
Why should I use orchestrations?
Structure of an orchestration
What objects can I create using an orchestration?
What is JSON?
JSON syntax
JSON editing and syntax checker tools
How do I create an instance using an orchestration - steps?

HTTP and REST Fundamentals
What is HTTP
How does HTTP work?
HTTP headers
HTTP methods

What is a URL?
What is REST?
About JSON

Oracle Storage Cloud Service Access and Authentication
About accessing Oracle Storage Cloud Service
Understanding authentication tokens and time limits
Constructing the authentication URL
Finding your account information
Storing an object using an authentication token
Using access control lists

Oracle Storage Cloud Service Containers and Objects
About containers
Creating containers
Setting container metadata
List containers
Deleting containers
About objects
Listing objects in a container
Creating objects