

Oracle Database Cloud for Oracle DBAs

Duration: 3 Days

What you will learn

This Oracle Database Cloud for Oracle DBAs training teaches you how to administer the Oracle Database Cloud Service. It's ideal for existing DBAs who want to learn how to deploy and administer an Oracle Database 18c environment in the cloud.

Learn To:

- Sign in to Oracle Database Cloud Service.
- Deploy an Oracle Database 18c environment.
- Manage different areas of database administration such as storage, backups, recovery, security, performance and monitoring through the Oracle Database Cloud Service consoles and Cloud tooling.
- Create, delete, stop, restart, patch and upgrade a database deployment.
- Monitor the database deployment by using the DBaaS Monitor utility.
- Manage users at all levels (Oracle Cloud Service, compute node and database).

Benefits to You

You will benefit from interactive instruction that covers these three areas: Database Deployment Expert Oracle University instructors will provide an overview of what the Oracle Public Cloud offers in terms of services. Learn how to sign in to an Oracle Public Cloud account, create a database deployment and learn how to delete, stop, restart, patch and upgrade a database deployment. Furthermore, you'll develop the knowledge and skills to add storage for the database deployment, containers, and perform on-demand backup and recovery operations. Instructors will deep-dive into security information, which includes configuring network access rules from tools and other database deployments, managing database deployment security at the compute node and the database levels, managing encryption of data at rest and in transit, and auditing the operations performed on the database deployment. You will also get an overview of various migration methods available for migrating Oracle Database to Oracle Cloud. Finally, you'll learn what can be tuned in a database deployment, along with how to use the DBaaS Monitor. Instructors will focus on the Waits, Sessions, and Alerts section, as well as how to access Enterprise Manager Database Express and use the Performance Hub and Tuning Advisor. You'll also walk away with the ability to scale the database deployment to get more CPU and RAM resources. Ideal for DBAs This course is ideal for existing DBAs who are looking to enhance their skills to become cloud DBAs. Taking this hands-on training will prepare DBAs for Cloud DBA certification exams.

Audience

- Cloud Administrator
- Cloud Architect
- Cloud Data Architects
- Cloud Database Administrators
- Cloud Technical Consultants

Cloud User
Database Administrators
Security Administrators

Related Training

Required Prerequisites

Experience in Oracle Database 11g and / or 12c Administration

Oracle Database 12c R2: Administration Workshop Ed 3

Suggested Prerequisites

Oracle Database 12c R2: Managing Multitenant Architecture Ed 2

Course Objectives

Tune a database deployment by using DBaaS Monitor utility

Use the Oracle Cloud services consoles

Create and manage a database deployment

Grant privileges and roles to users at all levels, Oracle Cloud Service, compute node and database

Manage encryption of data at rest and in transit

Manage database deployment security access at the compute node and the database

Describe various migration methods

Monitor the database deployment by using the DBaaS Monitor utility

Perform on-demand backups and recovery of the database deployment

Scale the database deployment to get more CPU and RAM resources

Audit operations performed on the database deployment

Access Enterprise Manager Database Express

Add storage for the database deployment

Configure network security rules

Course Topics

Overview of Cloud Services

Oracle Cloud Services

- Oracle Database Cloud Offerings
- Oracle Cloud Infrastructure as a Service (IaaS)
- Oracle Cloud Platform as a Service (PaaS)
- Oracle Cloud Software as a Service (SaaS)
- Oracle Cloud Data as a Service (DaaS)
- Oracle Database Cloud Offerings & Oracle Cloud Subscription Offerings
- Universal Credits & Bring Your Own License

Creating a Database Deployment

- Overview of a Database Deployment and an Database Instance & Database Cloud Service Architecture
- Automated Database Provisioning, Features and Tooling
- Comparison: DBCS Deployment and an On-Premises Database
- Using the Wizard to Create a Database Deployment, Creating a QuickStart Database Deployment
- Software Editions: Included Capabilities, General Purpose Shapes, High Memory Shapes
- How SSH Key Pairs are Used, Creating an SSH Key Pair
- Additional Database Configuration Options
- Storage Used for Database Files & File System Layout

Administering a Database Deployment

- Using the Oracle Cloud My Services Dashboard
- Viewing the Service Details & Using the Database Cloud Service Console
- Configuring Connections to the Compute Node
- Oracle Cloud User Roles and Privileges & Administering Users, Roles, and Privileges
- Managing Compute Node Users
- Managing Database Users and Privileges
- Scaling a Database Deployment
- Patching & Upgrading a Database Deployment

Backing Up and Recovering

- Backing Up and Recovering Database Deployments
- Using Utilities to Back Up and Recover the Database Deployment
- Choosing a Backup Destination & Default Backup Configuration
- Creating an On-Demand Backup
- Changing the Backup Destination
- Customizing the Backup Configuration
- Performing Recovery by Using the Console
- Performing Recovery by Using the dbaascli Utility

Use Case: Create a Database Deployment by Using a Production Database Backup

- Creating a Database Deployment From a Production Database Backup
- Prerequisites for Restoring a Database Backup Using Backup Cloud Service
- High-level Steps for Rapid Provisioning

Overview of Oracle Cloud Security

- Cloud Security Guidelines
- Enforcing Security in a Database Deployment
- Physical and Operating System Security of the Compute Node
- User Authentication: Services and Compute Node Access
- User Authentication: Database Access

Configuring Network Access to a Database Deployment

- Describing Network Access to the Compute Node and Database

- Creating Security Lists & Configuring Connections to the Compute Node
- Implementing Fine-Grained Control of Network Traffic
- Controlling Network Traffic & Network Security
- Defining Security Rules
- Accessing the Database Using Various Tools

Using Oracle DBaaS Monitor

- Managing the Database
- Monitoring the Database
- Managing and Monitoring the Listener
- Monitoring the Operating System

Implementing Database Deployment Security

- Secure Access to Configuration Files on the Compute Node
- Backing Up Operating System and Database Configuration Files
- Restricting Access to the Database
- Protecting Data in the Database Deployment
- Tablespace Encryption by Default
- Transparent Data Encryption (TDE): Overview
- Auditing: Compute Node Connections and Actions
- Auditing: Database

Use Case: Configure Network Isolation

- Achieving Network Isolation: Use Case
- Creating Security Lists
- Adding Instances to Security Lists
- Creating Security IP Lists
- Permitting Access to Oracle Cloud Service Instances

Overview of Migrating to Oracle Database Cloud Service

- Choosing a Migration Method: Considerations
- Choosing a Migration Method: Information Gathering
- Choosing a Method: Oracle Data Pump Considerations
- Choosing a Method: Unplug/Plug and Remote Cloning Considerations
- Choosing a Method: RMAN, SQL*Loader, and GoldenGate Considerations
- Applicable Migration Methods

Using SQL Developer to Migrate

- Overview of Using SQL Developer
- Using SQL Developer and INSERT Statements to Migrate Selected Objects
- Using SQL Developer and SQL*Loader to Migrate Selected Objects

Use Case: Automated Patching of Database Cloud Service

- Applying Patches to Database Cloud Service Deployments

Overview of DBCS Performance Management

- Performance Management in the Database Cloud Environment
- Performance Monitoring and Tuning
- Tuning Methodology
- Effective Tuning Goals
- General Tuning Session
- What Can be Tuned in a DBCS Environment?

Tuning Performance Issues

Tools for Performance Management

DBaaS Monitor: Database Information & Operating System Information

Identifying Performance Issues by Using the DBaaS Monitor

Using the Enterprise Manager Database Express Performance Hub

Identifying Performance Issues by Using Enterprise Manager Database Express

Identifying Performance Issues by Using SQL Developer

Using ADDM to Diagnose Performance Issues

Using the SQL Tuning Advisor

Performance Management

Database Deployment Scaling: Overview

Database Resource Manager

Using Resource Manager to Control PDB Resource Usage

Controlling Resource Usage by Consumer Groups

Determining When to Scale Up the Database Deployment

Scaling Up CPU and Memory

Using REST APIs to Manage Oracle Database Cloud Service

What is Oracle REST Data Services (ORDS)?

Key Principles of Representational State Transfer (REST)

What Does ORDS Do?

ORDS and Database Cloud Service

Using REST APIs in Oracle Cloud

Using REST APIs with Database Cloud Service

Using cURL and REST APIs

Reference: REST API HTTP Status Codes

Deleting a Database Deployment

What Happens When You Delete a Database Deployment?

How Can You Delete a Database Deployment?

Use Case: Creating a Cloned Database Deployment from a Snapshot

Creating a Cloned Database Deployment from a Snapshot