Oracle Database Appliance Release 18c Overview

Oracle Database

DURATION	MODULES	COURSE CODE
2 Days	**14 Lectures**	**—**

Course Overview

This course provides an overview of Oracle Database Appliance Release 18c Overview. Understand the key features, architecture, and capabilities of this Oracle Database solution.

What You Will Learn

Introducing Oracle Database Appliance

- Objectives
- Oracle Database Appliance
- Engineered Infrastructure Delivers Optimized Results
- Simple
- Simplicity Through Integration
- Maximize Your Return on IT Resources
- Optimized
- High Availability and Integrated Security
- Affordable
- Manage License Costs Using Capacity On-Demand
- Reduced OPEX Through Simplicity and Automation
- Engineered Appliance Advantages
- Oracle Database Appliance
- Oracle Database Appliance X8 Model Family
- Oracle Database Appliance X8 | Model Family Hardware Summary
- Oracle Database Appliance X8-2S – Small Hardware Configuration
- Oracle Database Appliance X8-2M – Medium Hardware Configuration
- Storage Architecture Oracle Database Appliance X8-2S/X8-2M
- Estimated Usable Space Oracle Database Appliance X8-2S/X8-2M
- Oracle Database Appliance X8-2S/X8-2M Public Network Details
- Oracle Database Appliance X8-2-HA – High Availability Configuration
- Oracle Database Appliance X8-2-HA Storage Architecture

- Estimated Usable Space Oracle Database Appliance X8-2-HA High
- Performance Configuration
- Estimated Usable Space Oracle Database Appliance X8-2-HA High
- Capacity Configuration
- Expanding Storage in Oracle Database ApplianceX8-2-HA
- Expanding Storage in Oracle Database Appliance X8-2-HA
- Oracle Database Appliance X8-2-HA Bare Metal Network Details
- Oracle Database Appliance X8-2-HA Virtualized Platform Network Details
- Oracle Database Appliance
- Oracle Database Appliance Software Stack
- Oracle Database Licensing Supported on Oracle Database Appliance
- Standard Edition Versions and Features Supported on Oracle Database
- Appliance
- Enterprise Edition Versions and Features Supported on Oracle Database
- Appliance
- Oracle Database Appliance – Appliance Manager
- Virtualization on Oracle Database Appliance
- Virtualization on Oracle Database Appliance Architecture
- Additional Information
- Summary
- Quiz

Preparing for Deployments

- Objectives
- Registering with Oracle Support and Downloading the Latest Software
- Checking the Shipment
- Site Preparation: Electrical and Environmental
- Site Preparation: Physical Specifications
- Racking Oracle Database Appliance
- Rack Mounting the Storage Shelf (Oracle Database Appliance DE3-24C)
- Rack Mounting the Server Nodes
- Cabling Oracle Database Appliance
- Cabling Oracle Database Appliance X8-2S/X8-2M
- Cabling Oracle Database Appliance X8-2-HA
- Powering On the Oracle Database Appliance X8-2S/X8-2M
- Powering On the Oracle Database Appliance X8-2-HA
- Oracle Integrated Lights Out Management (Oracle ILOM)
- Multiple Options to Configure Oracle ILOM
- Plumbing the Network
- Summary
- Quiz

Introduction to Deployments

- Objectives
- Key Oracle Database Application Documents

- Oracle Database Deployment Options
- Selecting Database Shapes
- OLTP Workload Database Shapes
- DSS Workload Database Shapes
- In-Memory Workload Database Shapes
- Storage Options
- Configuration Options and Requirements
- Configuration Requirements
- Summary
- Quiz

Bare Metal Deployments

- Objectives
- About Bare Metal Deployments
- Oracle Database Appliance Base Software
- Oracle Database Appliance Software
- Oracle Database and Oracle Grid Infrastructure Clones
- Bare Metal Operating System ISO Image
- Tasks to Complete Before Deployment
- Copying the Deployment Software to Oracle Database Appliance
- Multi-node Bare Metal Deployment (Launch the Browser User Interface)
- Multi-node Bare Metal Deployment (Configure System)
- Multi-Node Bare Metal Deployment (Configure Client Access Network)
- Multi-Node Bare Metal Deployment (Configure Scan and VIP Network)
- Multi-Node Bare Metal Deployment (Configure ILOM Network)
- Multi-Node Bare Metal Deployment (Configure Users and Groups)
- Multi-Node Bare Metal Deployment (Configure Database)
- Notes only
- Multi-Node Bare Metal Deployment (Configure ASR)
- Multi-Node Bare Metal Deployment (Submit Configuration Details)
- Loading Oracle Database Appliance Configuration From a Configuration File
- Oracle Database Appliance Default Security Settings
- Changing Installation Owner Passwords
- Changing the IPMI Username and Password
- Summary
- Practice 4: Overview
- Quiz

Managing Databases for Bare Metal Oracle Database Appliance

- Objectives
- Database Performance and Workload Sizing Considerations
- Default Administrative Groups and Users
- Directory Paths for Oracle Database Appliance
- Viewing Existing Databases
- Creating a New Database

- Notes only
- Deleting a Database
- Viewing Existing Database Homes
- Creating a New Database Home
- Deleting a Database Home
- Summary
- Practice 5: Overview
- Quiz

Oracle Database Appliance Backup and Recovery

- Objectives
- Overview of Oracle Database Appliance Backup and Recovery
- Oracle Database Appliance Backup Levels
- Oracle Database Appliance Recovery Options
- Backing Up to Disk or Internal FRA Workflow
- Backing Up to Oracle Object Storage Workflow
- Backing Up to External FRA or NFS Workflow
- Creating a Backup Policy
- Updating a Backup Policy
- Deleting a Backup Policy
- Adding a Backup Policy to a Database
- Creating a Database Backup
- Recovering a Database from Backup
- Summary
- Practice 6: Overview
- Quiz

Patching Bare Metal Oracle Database Appliance

- Objectives
- Overview of Oracle Database Appliance Patching
- Patching Options
- Upgrading Oracle Database Appliance
- Upgrade Path for Oracle Database Appliance
- The Patching Process
- Downloading the Server Patch Bundle
- Updating the Patch Repository Using the Browser User Interface
- Updating the Agent, Storage, DCS, and Server Components Using the Browser
- User Interface
- Patching a Database Home (Updating a Database) Using the Browser User
- Interface
- Upgrading a Database
- Updating the Patch Repository Using Command-Line
- Updating the DCS Agent Using Command-Line
- Updating the Server and Storage Using Command-Line
- Patching a Database Home (Updating a Database) Using Command-Line

- Upgrading a Database Using Command-Line
- Summary
- Practice 7: Overview
- Quiz

Administering Bare Metal Oracle Database Appliance

- Objectives
- Using the Browser User Interface for Oracle Database Appliance Administration
- Using CLI for ODA Administration
- Understanding Bare Metal Oracle Database Appliance Configuration
- Oracle Database Appliance X8-2 Network Options
- Updating a Network
- Virtual Local Area Network Administration
- Creating a New VLAN Using Browser User Interface
- Storage Administration
- Using Browser User Interface for Monitoring: Bill of Materials
- Using Browser User Interface for Monitoring: Hardware
- Diagnostics
- What Is Auto Service Request?
- How Does Oracle ASR Work?
- Summary
- Practice 8: Overview
- Quiz

Introduction to Virtualized Platform

- Objectives
- What Is Virtualization?
- What Are the Advantages of Virtualization?
- Why Virtualize Applications on Oracle Database Appliance?
- Virtualization on Oracle Database Appliance
- Differences Between OVM and KVM
- Overview: Provision and Deploy Virtualized Platform
- Summary
- Quiz

Provisioning an Oracle Database Appliance Virtualized Platform

- Objectives
- Configuring Oracle Database Appliance Virtualized Platform OS ISO Images
- Virtualized Server Platform
- VM ISO Image (Dom0) (Virtualized Platform ISO Image)
- Oracle Database Appliance Virtualized OS Re-image: Step 1
- Oracle Database Appliance Virtualized OS Re-image: Step 2
- Oracle Database Appliance Virtualized OS Re-image: Step 3
- Oracle Database Appliance Virtualized OS Restore: Step 4

- Oracle Database Appliance Virtualized OS Restore: Step 5
- Oracle Database Appliance Virtualized OS Restore: Step 6
- Oracle Database Appliance Virtualized OS Restore: Step 7
- Oracle Database Appliance Virtualized OS Restore: Step 8
- Oracle Database Appliance Virtualized OS Restore: Step 9
- Oracle Database Appliance Virtualized OS Restore: Step 10
- Oracle Database Appliance Virtualized OS Restore: Step 11
- Oracle Database Appliance Virtualized OS Restore: Step 12
- Creating Initial Network Using the configure-firstnet Script
- Optional: Creating a Virtual Local Area Network (VLAN)
- Summary
- Quiz

Installing Virtualized Platform Software and Deploying the Appliance (ODA_BASE)

- Objectives
- Oracle Database Appliance ODA_BASE Template (Virtualized Platform
- Deployments Only)
- Transferring the ODA_BASE Template to ODA
- Installing the ODA_BASE Template
- Configuring the ODA_BASE Template
- Validating the ODA_BASE Deployment
- Configuring Public Network for ODA_BASE
- Updating Server and Storage Components
- Information You Need for Deployment: Network
- Information You Need for Deployment: Database
- Understanding Database Shapes (Templates)
- Database Template Storage Performance
- Collecting Information You Need: Security and Storage
- Real-Time Configuration and Deployment
- Verifying Virtual Machine Image and Cabling
- Virtualized Platform Deployment
- Oracle Database Appliance Manager Stand-alone Configurator
- Start Configurator
- Welcome Window
- Configuration Type Window
- System Information Window
- Network Information Window
- Database Information Window
- Network Validation Window
- Summary Window
- Configuring CPU Core Count
- Securing Oracle ILOM Service Processors
- Changing Installation Owner Passwords
- Changing the IPMI Username and Password
- Summary

- Practice 11: Overview
- Quiz

Deploying and Managing Guest VMs

- Objectives
- Virtualized Server Release or Revision Updates Are Image Updates
- Understanding Oracle VM Guests
- Deploying Virtual Guest Machines to Create Solutions-in-a-Box
- Virtualized Platform Deployments Shared Repositories: Overview
- Supporting Application Workloads Through Virtualization
- Solution-in-a-Box Series
- Deploying Virtual Guest Machines
- Staging the Downloaded Template and Cloning the VM
- Example of a Created VM
- Configuring the Template
- Starting the Virtual Machine
- Working with Shared Repositories: Step 1
- Importing the Required Template or Assembly: Step 2
- Configuring the Template or Assembly: Step 3
- Cloning the Template or Assembly: Step 4
- Updating the Virtual Machine as Required: Step 5
- Starting the Virtual Machine: Step 6
- Accessing the Virtual Machine Console: Step 7
- Creating Virtual Local Area Networks (VLAN)
- CPU Pools on Virtualized Platform Deployments
- CPU Pool Management Commands
- Summary
- Quiz

Managing Databases for Oracle Database Appliance Virtualized Platform

- Objectives
- Virtual Machine Performance Considerations Selecting the Right Size and Shape
- for Your Use Case
- Selecting the Right Shape for Your Workload
- Workloads and Database Shapes and Sizes
- Default Administrative Groups and Users
- Creating a New Virtualized Platform Oracle Database on Oracle Database
- Appliance
- Directory Paths for Oracle Database Appliance
- Modifying an Existing Database
- Managing Databases
- Creating Additional Databases
- Integrated Database Snapshots
- Database Snapshots: Storage Space Benefits
- Database and VM Snapshots

- Creating Snapshot Databases
- The Patching Process
- Step 1: Downloading the Patch Bundle
- Obtaining and Deploying the Patch
- Step 2: Unpacking and Validating the Patch Files
- Step 3: Updating the Server Components, Storage Components, and the
- Database
- Summary
- Quiz

Administering Oracle Database Appliance Virtualized Platforms

- Objectives
- Understanding Virtualized Configuration and OS Layout
- Managing Shared Repositories
- Checking Repository Status
- Importing Template or Assembly
- Configuring Template or Assembly
- Cloning Template or Assembly
- Updating Virtual Machine as Required
- Creating Virtual Local Area Networks (VLAN)
- CPU Pools on Virtualized Platform Deployments
- CPU Pool Management Commands
- Creating Virtual Disks and Storage Pools
- Summary
- Quiz