

Oracle Database 12c R2: Install and Upgrade Workshop NEW

Duration: 2 Days

What you will learn

This Oracle Database 12c R2: Install and Upgrade Workshop gives you detailed information to help you install Oracle Database 12c Release 2 software. Expert Oracle instructors will teach you how to create a container database and provision pluggable databases.

Learn To:

Configure the Oracle Linux 7 operating system for Oracle software installation.

Install Oracle Grid Infrastructure for a Standalone Server (12.1) using Oracle Universal Installer.

Install Oracle Grid Infrastructure for an Independent Server (12.2) using a golden image.

Configure ASMLIB and create ASM disk groups.

Install Oracle Database software (12.1) using Oracle Universal Installer.

Install Oracle Database software (12.2) using a silent installation.

Apply patch set updates to Oracle software.

Use Oracle Restart to manage components.

Upgrade an existing Oracle Database to Oracle Database 12c Release 2 (12.2.0.0.3).

Create a container database and provision pluggable databases.

Benefits To You

Students will benefit from working with multiple install scenarios in the lab sessions. This will allow the new course to be relevant for both 12c R1 and 12c R2 setups. After the install of the Grid Infrastructure software, the student will then gain experience patching Oracle Software.

Audience

Data Warehouse Administrator

Database Administrators

Support Engineer

Technical Administrator

Related Training

Required Prerequisites

Basic knowledge of Linux operating system

Suggested Prerequisites

Basic knowledge of Linux System Administration

Oracle Database 12c R2: Administration Workshop Ed 3

Oracle Database 12c: Administration Workshop Ed 2

Oracle Database 12c: Introduction to SQL Ed 1.1

Oracle Database: Introduction to SQL Ed 2

Oracle Linux 5 & 6 System Administration

Oracle Linux 5 & 6 System Administration Ed 3

Working knowledge of SQL and use of PL/SQL packages

Course Objectives

Upgrade database to Oracle Database 12c Release 2

Create a container database

Install Oracle Grid Infrastructure for a Standalone Server (12.1.0.2.0)

Configure ASMLIB and create ASM disk groups

Apply the latest patch set updates to the Grid Infrastructure software (12.1.0.2.160719)

Install Oracle Database 12c Release 2 software (12.2.0.0.3)

Use Oracle Restart to manage components

Prepare the Linux operating system for Oracle software installation

Install Oracle Grid Infrastructure for an Independent Server (12.2.0.0.3)

Install Oracle Database 12c software (12.1.0.2.0)

Create an Oracle Database using DBCA

Install the latest patch set updates to the Oracle database software (12.1.0.2.160719)

Course Topics

Oracle Database 12c R2: Overview

Objectives

Oracle Database Innovation

Oracle Database Server Architecture: Overview

Oracle Database Instance Configurations

Connecting to the Database Instance

Oracle Database Memory Structures

Process Architecture

Database Storage Architecture

Oracle Software Installation Basics

Planning Your Installation

Configuring Oracle Linux with Oracle RDBMS Pre-Install RPM

Operating System Groups and Users

Environment Variables

Configuring the Oracle Software Owner Environment
Using Oracle Universal Installer (OUI)
Installation Option: Silent Mode

Installing Oracle Grid Infrastructure for a Standalone Server

Overview of Patching
Types of patches
Determining the latest patch sets available using Oracle Support
Upgrading OPatch
Patching Using OPatch
Post Patch steps using Datapatch
Patching Using opatchauto
Patching Using OPlan

Installing Oracle Database Software

Oracle Database Installation: System Requirements
Creating Operating System Groups and Users
Types of Installations

Creating an Oracle Database by Using DBCA

Planning the Database
Types of Databases
Choosing the Appropriate Character Set
Understanding How Character Sets Are Used
Setting the NLS_LANG Initialization Parameter
Using the DBCA to Create a Database
Creating a Container Database by Using DBCA
Creating a Database Design Template

Oracle Restart

Oracle Restart
Oracle Restart Process Startup
Controlling Oracle Restart
Choosing the Correct SRVCTL Utility
Oracle Restart Configuration
Using the SRVCTL Utility
Obtaining Help for the SRVCTL Utility
Starting Components by Using the SRVCTL Utility

Introduction to Upgrading to Oracle Database 12c

Defining Upgrade and Data Migration
Upgrade Methods
Database Upgrade Assistant: Advantages and Disadvantages
Manual Upgrade: Advantages and Disadvantages
Upgrade Paths
Upgrade Method Limitations
Upgrading to a New Release of Oracle Database
Migration Methods

Preparing to Upgrade to Oracle Database 12c

Preparing to Upgrade
Planning the Upgrade

- Developing a Test Plan
- Performance Testing
- Requirements for Databases Using Oracle Label Security or Oracle Database Vault
- Requirement for Databases Using Oracle Warehouse Builder
- Using the Pre-Upgrade Information Tool
- Backing Up the Database

Upgrading to Oracle Database 12c

- Upgrading by Using the Database Upgrade Assistant (DBUA)
- Key DBUA Features
- Manually Upgrading to Oracle Database 12c
- Migrating a Pre-12.1 or 12.1 Non-CDB to CDB
- Plugging a Non-CDB Database into a CDB

Performing Post-Upgrade Tasks

- Required Tasks After Database Upgrade
- Recommended Tasks After Database Upgrade
- Understanding Auditing Implementation
- Enabling Unified Auditing
- Administering the Roles Required for Auditing

Migrating Data by Using Oracle Data Pump

- Oracle Data Pump: Overview
- Data Pump Export and Import Clients: Overview
- Data Pump Utility: Interfaces and Modes
- Migrating by Using Oracle Data Pump
- Importing by Using a Network Link
- Creating a Container Database by Using DBCA
- Creating a New PDB from PDB\$SEED
- Exporting from a Non-CDB and Importing into a PDB