

Course: Oracle Database 12c R2: Install and Upgrade Workshop

Course Outline

Oracle Database 12c R2: Overview

- Oracle Database Innovation
- Oracle Database Server Architecture: Overview
- Process Architecture
- Database Storage Architecture
- Oracle Database Memory Structures
- Objectives
- Oracle Database Instance Configurations
- Connecting to the Database Instance

Oracle Software Installation Basics

- Operating System Groups and Users
- Environment Variables
- Configuring the Oracle Software Owner Environment
- Planning Your Installation
- Using Oracle Universal Installer (OUI)
- Installation Option: Silent Mode
- Configuring Oracle Linux with Oracle RDBMS Pre-Install RPM

Installing Oracle Grid Infrastructure for a Standalone Server

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

Installing Oracle Database Software

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

Creating an Oracle Database by Using DBCA

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

Oracle Restart

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

Introduction to Upgrading to Oracle Database 12c

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

Preparing to Upgrade to Oracle Database 12c

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

Upgrading to Oracle Database 12c

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

Performing Post-Upgrade Tasks

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

Migrating Data by Using Oracle Data Pump

- Creating a New PDB from PDB\$SEED
- Exporting from a Non-CDB and Importing into a PDB
- Oracle Data Pump: Overview

- Importing by Using a Network Link
- Migrating by Using Oracle Data Pump
- Creating a Container Database by Using DBCA
- Data Pump Utility: Interfaces and Modes
- Data Pump Export and Import Clients: Overview