Oracle Database 12c: Administration Workshop NEW

Duration: 5 Days

What you will learn

 The Oracle Database 12c: Administration Workshop will teach you about the Oracle Database architecture. You will discover how to effectively manage an Oracle Database instance, configure the Oracle Network Environment and perform database maintenance.

Learn To:

Create and manage an Oracle Database Instance.

Create and manage Storage Structures.

Configure the Oracle Network Environment.

Create and manage users.

Monitor the database and manage performance.

Learn basic information on backup and recovery techniques.

Use the Oracle Support Workbench and My Oracle Support to update your Oracle Database software.

Benefits to You

Ensure fast, reliable, secure and easy to manage performance. Optimize database workloads, lower IT costs and deliver a higher quality of service by enabling consolidation onto database clouds.

Participate in Hands-On Practices and Demonstrations
Expert instruction and hands-on demonstrations will provide you with real world experience. By engaging in hands-on exercises to reinforce your learning, you'll develop in demand skills to effectively manage an Oracle Database.

Audience
Data Warehouse Administrator
Database Administrators
Database Designers
Support Engineer
Technical Administrator

Related Training

Required Prerequisites

Working knowledge of SQL and use of PL/SQL packages

Suggested Prerequisites
Basic knowledge of Linux operating system

Monitor the Database

Manage Database Performance

Implement Database Auditing

Configure the Database Instance Such That Resources Are Appropriately Allocated Among Sessions and Tasks

Schedule Jobs to Run Inside or Outside of the Database

Configure Oracle Net Services

Configure your Database For Backup and Recovery Operations

Describe Oracle Database Architecture

Manage the Oracle Database Instance

Manage Oracle Database Storage structures

Create and Administer User Accounts

Course Topics

Introduction
Course Objectives
Course Schedule
Overview of Oracle Database 12c
Overview of Oracle Cloud
Overview of the HR Schema

Exploring the Oracle Database Architecture
Oracle Database Architecture: Overview
Oracle Database Instance Configurations
Connecting to the Oracle Database Instance
Oracle Database Memory Structures
Process Architecture
Process Structures
Process Startup Sequence
Database Storage Architecture

Managing the Database Instance
Introducing Oracle Database Management Tools
Understanding the Enterprise Manager Management Framework
Logging in to Oracle Enterprise Manager Database Express
Using the Enterprise Manager Database Express Home Page
Using Enterprise Manager Cloud Control
Using SQL*Plus
Using SQL Developer

Initialization Parameter Files

Configuring the Oracle Network Environment
Oracle Net Services Overview
Oracle Net Listener Overview
Establishing Oracle Network Connections
Tools for Configuring and Managing the Oracle Network
Using the Listener Control Utility
Using Oracle Net Configuration Assistant
Using Oracle Net Manager
Using Enterprise Manager Cloud Control

Managing Database Storage Structures
Understanding Storage of Data
Database Block Contents
Exploring the Storage Structure
Creating a New Tablespace
Overview of Tablespaces Created by Default
Managing Tablespaces
Viewing Tablespace Information
Using Oracle Managed Files

Administering User Security
Database User Accounts
Predefined Administrative Accounts
Creating a User
Authentication
Unlocking a User Account and Resetting the Password
Privileges
Roles
Profiles

Managing Data Concurrency
Overview of Locks
Locking Mechanism
Data Concurrency
DML Locks
Enqueue Mechanism
Lock Conflicts

Managing Undo Data
Undo Data Overview
Transactions and Undo Data
Storing Undo Information
Comparing Undo Data and Redo Data
Managing Undo
Configuring Undo Retention
Guaranteeing Undo Retention
Changing an Undo Tablespace to a Fixed Size

Implementing Oracle Database Auditing
Separation of Responsibilities

Database Security
Monitoring for Compliance
Standard Database Auditing
Unified Audit Data Trail
Separation for Duties for Audit Administration (AUDIT_ADMIN and AUDIT_VIEWER roles)
Configuring the Audit trail
Specifying Audit Options

Performing Database Maintenance
Database Maintenance
Viewing the Alert History
Terminology
Automatic Workload Repository (AWR)
Statistic Levels
Automatic Database Diagnostic Monitor (ADDM)
Advisory Framework
Enterprise Manager and Advisors

Managing Performance
Performance Monitoring
Tuning Activities
Performance Planning
Instance Tuning
Performance Tuning Methodology
Performance Tuning Data
Monitoring Performance
Managing Memory

Managing Performance: SQL Tuning
SQL Tuning
Oracle Optimizer
SQL Plan Directives
Adaptive Execution Plans
SQL Advisors
Automatic SQL Tuning Results
Implement Automatic Tuning Recommendations
SQL Tuning Advisor

Managing Resources by Using Database Resource Manager
Database Resource Manager Overview
Database Resource Manager Concepts
Using the Resource Manager
Default Maintenance Resource Manager Plan
Default Plan Example
Resource Manager Workflow
Specifying Resource Plan Directives
Resource Allocation Methods for Resource Plans

Automating Tasks by Using Oracle Scheduler
Simplifying Management Tasks
Understanding a Simple Job
Core Components

Basic Work Flow
Persistent Lightweight Jobs
Using a Time-Based or Event-Based Schedule
Creating a Time-Based Job
Creating an Event-Based Schedule

Managing Space
Space Management Overview
Block Space Management
Row Chaining and Migration
Free Space Management Within Segments
Types of Segments
Allocating Extents
Allocating Space
Creating Tables Without Segments

Backup and Recovery Concepts
Categories of Failures
Flashback Technology
Understanding Instance Recovery
Phases of Instance Recovery
Tuning Instance Recovery
Using the MTTR Advisor
Media Failure
Configuring for Recoverability

Moving Data
Moving Data: General Architecture
Oracle Data Pump
SQL*Loader
External Tables

Working with Oracle Support
Using the Support Workbench
Using Enterprise Manager
Working with Oracle Support
My Oracle Support Integration
Researching an Issue
Logging Service Requests
Managing Patches
Applying a Patch Release