

Oracle Database 10g: Administration Workshop I Release 2

Duration: 5 Days

What you will learn

This Oracle Database 10g: Administration Workshop I Release 2 training is designed to give you a firm foundation in basic database administration. Expert Oracle University instructors will teach you how to install and maintain an Oracle database.

Learn To:

Install the Database.

Back up and recover data.

Administer users and manage data.

Transport data between databases.

Configure the network.

Understand the Oracle database architecture and how its components work and interact with one another.

Use performance monitoring, database security, user management and backup/recovery techniques.

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 smooth and rapid consolidation within your Datacenter.

Create an Operational Database

This course will also teach you how to create an operational database and properly manage the various structures efficiently. New lesson topics you've reviewed are reinforced through structured, hands-on practices that solidify your understanding.

Prepare for Oracle Certification Exams

This course is designed to prepare you for the corresponding Oracle Certified Associate exam. It counts towards the hands-on course requirement for the Oracle Database 10g Administrator Certification.

Course Formats

Only Classroom Training or Live Virtual Class formats of this course meet the Certification Hands-on Requirement. Self-Study Courses and Knowledge Center courses do not meet the hands-on requirement.

Audience

Database Administrators
Database Designers

Project Manager Sales Consultants Support Engineer Technical Consultant

Related Training

Suggested Prerequisites
Working knowledge of SQL

Course Objectives

Install Oracle Database 10g and configure a database

Manage the Oracle instance

Manage the Database storage structures

Create and administer user accounts

Perform backup and recovery of a database

Monitor, troubleshoot, and maintain a database

Configure Oracle Net services

Move data between databases and files

Course Topics

Introduction (Database Architecture)

Describe course objectives
Explore the Oracle 10g database architecture

Installing the Oracle Database Software

Explain core DBA tasks and tools
Plan an Oracle installation
Use optimal flexible architecture
Install software with the Oracle Universal Installer (OUI)

Creating an Oracle Database

Create a database with the Database Configuration Assistant (DBCA) Create a database design template with the DBCA Generate database creation scripts with the DBCA

Managing the Oracle Instance

Start and stop the Oracle database and components Use Enterprise Manager (EM) Access a database with SQL*Plus and iSQL*Plus Modify database initialization parameters Understand the stages of database startup View the Alert log Use the Data Dictionary

Managing Database Storage Structures

Describe table data storage (in blocks)

Define the purpose of tablespaces and data files

Understand and utilize Oracle Managed Files (OMF)

Create and manage tablespaces

Obtain tablespace information

Describe the main concepts and functionality of Automatic Storage Management (ASM)

Administering User Security

Create and manage database user accounts

Authenticate users

Assign default storage areas (tablespaces)

Grant and revoke privileges

Create and manage roles

Create and manage profiles

Implement standard password security features

Control resource usage by users

Managing Schema Objects

Define schema objects and data types

Create and modify tables

Define constraints

View the columns and contents of a table

Create indexes, views and sequences

Explain the use of temporary tables

Use the Data Dictionary

Managing Data and Concurrency

Manage data through SQL

Identify and administer PL/SQL Objects

Describe triggers and triggering events

Monitor and resolve locking conflicts

Managing Undo Data

Explain DML and undo data generation

Monitor and administer undo

Describe the difference between undo and redo data

Configure undo retention

Guarantee undo retention

Use the undo advisor

Implementing Oracle Database Security

Describe DBA responsibilities for security

Apply the principal of least privilege

Enable standard database auditing

Specify audit options

Review audit information

Configuring the Oracle Network Environment

Use Enterprise Manager for configuring the Oracle network environment

Create additional listeners

Create Net Service aliases

Configure connect-time failover

Control the Oracle Net Listener

Test Oracle Net connectivity

Identify when to use shared versus dedicated servers

Proactive Maintenance

Use statistics

Manage the Automatic Workload Repository (AWR)

Use the Automatic Database Diagnostic Monitor (ADDM)

Describe advisory framework

Set alert thresholds

Use server-generated alerts

Use automated tasks

Performance Management

Use Enterprise Manager pages to monitor performance

Use the SQL Tuning Advisor

Use the SQL Access Advisor

Use Automatic Shared Memory Management

Use the Memory Advisor to size memory buffers

Use performance related dynamic views

Troubleshoot invalid or unusable objects

Backup and Recovery Concepts

Identify the types of failure that may occur in an Oracle Database

Describe ways to tune instance recovery

Identify the importance of checkpoints, redo log files, and archived log files

Configure ARCHIVELOG mode

Performing Database Backups

Create consistent database backups

Back your database up without shutting it down

Create incremental backups

Automate database backups

Monitor the flash recovery area

Performing Database Recovery

Recover from loss of a control file

Recover from loss of a redo log file

Perform complete recovery following the loss of a data file

Performing Flashback

Describe Flashback database

Restore the table content to a specific point in the past with Flashback Table

Recover from a dropped table

View the contents of the database as of any single point in time with Flashback Query

See versions of a row over time with Flashback Versions Query View the transaction history of a row with Flashback Transaction Query

Moving Data

Describe available ways for moving data
Create and use directory objects
Use SQL*Loader to load data from a non-Oracle database (or user files)
Explain the general architecture of Data Pump
Use Data Pump Export and Import to move data between Oracle databases
Use external tables to move data via platform-independent files

Related Courses

Oracle Database 10g: Administration Workshop I Self-Study Course