

Oracle Database 11g: Administration Workshop I

Duração: 5 Dias

Objetivos do Curso

This course is designed to give students a firm foundation in basic administration of Oracle Database 11g. In this class, students learn how to install and maintain Oracle Database 11g. Students gain a conceptual understanding of the Oracle database architecture and how its components work and interact with one another. Students learn how to create an operational database and properly manage the various structures in an effective and efficient manner including performance monitoring, database security, user management, and backup/recovery techniques. The lesson topics are reinforced with structured hands-on practices.

This course counts towards the Hands-on course requirement for the Oracle Database 11g Administrator Certification. Only instructor-led inclass or instructor-led online formats of this course will meet the Certification Hands-on Requirement. Self Study CD-Rom and Knowledge Center courses DO NOT meet the Hands-on Requirement.

Learn To:

Manage users

Manage storage structures

Backup and Recovery

Install and configure an Oracle database

Público

Administrador de Banco de Dados

Database Administrators

Database Designers

Developer

Support Engineer

Technical Administrator

Pré-requisitos

Pré-requisitos Recomendados

Working knowledge of SQL

Oracle Database 11g: Introduction to SQL

Objetivos do Curso

Describe Oracle Database Architecture

Install and configure Oracle Database 11g

Configure Oracle Net services

Manage the database storage structures

Create and administer user accounts

Perform basic backup and recovery of a database

- Manage users and schemas
- Manage data and concurrency
- Monitor and administer undo data
- Backup and recover a database
- Monitor performance
- Use the database diagnostic monitor

Tópicos do Curso

Exploring the Oracle Database Architecture

- Oracle Database Architecture Overview
- Interacting with an Oracle Database
- Process Architecture
- Database Storage Architecture
- Logical and Physical Database Structures
- Tablespaces and Data Files
- SYSTEM and SYSAUX Tablespaces
- Segments, Extents, and Blocks

Preparing the Database Environment

- Tasks of an Oracle Database Administrator
- Tools Used to Administer an Oracle Database
- Installation: System Requirements
- Optimal Flexible Architecture (OFA)
- Setting Environment Variables
- Oracle Universal Installer (OUI)
- Database Configuration Options
- Advanced Installation Options

Creating an Oracle Database

- Planning the Database
- Configuring the Listener
- Using the DBCA to Create a Database
- Password Management
- Creating a Database Design Template
- Using the DBCA to Delete a Database
- Using DBCA For Additional Tasks

Managing the Oracle Instance

- Management Framework
- Oracle Enterprise Manager
- Initialization Parameter
- Database Startup and Shutdown
- Shutdown Modes
- Viewing the Alert History
- Using Trace Files
- Data Dictionary: Overview

Configuring the Oracle Network Environment

- Oracle Net Services & Listener
- Establishing Net Connections

Tools for Configuring and Managing the Oracle Network

Net Services Administration Pages

Naming Methods

Directory Naming

SGA and PGA

When Not to Use a Shared Server

Managing Database Storage Structures

Storage Structures

How Table Data Is Stored

Anatomy of a Database Block

Space Management in Tablespaces

Tablespaces in the Preconfigured Database

Actions with Tablespaces

Oracle Managed Files (OMF)

ASM: Concepts

Administering User Security

Database User Accounts

Predefined Accounts: SYS and SYSTEM

Administrator Authentication

Benefits of Roles

Predefined Roles

Implementing Password Security Features

Assigning Quota to Users

Managing Schema Objects

What Is a Schema?

Accessing Schema Objects

Specifying Data Types in Tables

Creating and Modifying Tables

Understanding Data Integrity

Indexes & Views

Sequences

Temporary Tables

Managing Data and Concurrency

Manipulating Data Through SQL

PL/SQL

Administering PL/SQL Objects

Functions, Procedures, Packages & Triggers

Data Concurrency

Enqueue Mechanism

Resolving Lock Conflicts Using SQL

Deadlocks

Managing Undo Data

Data Manipulation

Transactions and Undo Data

Undo Data Versus Redo Data

Configuring Undo Retention

Guaranteeing Undo Retention

Using the Undo Advisor
Viewing System Activity

Implementing Oracle Database Security

Industry Security Requirements
Principle of Least Privilege
Monitoring for Compliance
Value-Based Auditing
Fine-Grained Auditing
DBA Auditing
Security Updates
Applying Security Patches

Database Maintenance

Introducing Terminology
Optimizer Statistics
Automatic Workload Repository (AWR)
Automatic Database Diagnostic Monitor (ADDM)
Advisory Framework
Automated Maintenance Tasks
Server-Generated Alerts
Reacting to Alerts

Performance Management

Performance Monitoring
Managing Memory Components
Enabling Automatic Memory Management (AMM)
Automatic Shared Memory Advisor
Using Memory Advisors
Dynamic Performance Statistics
Troubleshooting and Tuning Views
Invalid and Unusable Objects

Backup and Recovery Concepts

Part of Your Job
Statement Failure
User Error
Understanding Instance Recovery
Phases of Instance Recovery
Using the MTTR Advisor
Media Failure
Archive Log Files

Performing Database Backups

Backup Solutions: Overview
Oracle Secure Backup
User-Managed Backup
Terminology
Recovery Manager (RMAN)
Configuring Backup Settings
Backing Up the Control File to a Trace File
Monitoring the Flash Recovery Area

Performing Database Recovery

- Opening a Database
- Data Recovery Advisor
- Loss of a Control File
- Loss of a Redo Log File
- Data Recovery Advisor
- Data Failures
- Listing Data Failures
- Data Recovery Advisor Views

Moving Data

- Moving Data: General Architecture
- Directory Object: Overview
- SQL*Loader: Overview
- Data Pump: Overview
- Performance Initialization Parameters
- Using Enterprise Manager to Monitor Data Pump Jobs
- Data Dictionary

Enhancing Database Capabilities

- Using EM Support Workbench
- Create a Service Request
- Package and upload diagnostic data to Oracle Support
- Track the SR and Implement Repairs
- Incident Packaging Configuration
- Working with Oracle Support
- MetaLink Integration
- Managing Patches

Cursos Equivalentes

Oracle Database 11g: Administration Workshop I - Self-Study CD Course NEW!