

Oracle Database 11g - Administration Workshop I Release 2



5 jours - 35 heures

Code formation : log-

www.adhara.fr

Objectifs

Monitor performance Describe Oracle Database Architecture Install Oracle Grid Infrastructure Install and configure Oracle Database 11g Configure Oracle Net services Monitor and administer undo data Manage the database storage structures Create and administer user accounts Perform basic backup and recovery of a database Manage users and schemas Manage data concurrency

Participants

Administrateurs de base de données Consultant Technique Database Administrators Développeurs Java Ingénieurs support Java Developer Support Engineer Technical Administrator Technical Consultant

Prérequis

Cours pré-requis obligatoire(s) Taken Oracle Introduction to SQL course or equivalent experience Taken Oracle PL/SQL course or equivalent experience Cours pré-requis conseillé(s) Oracle Database 11g : Introduction à SQL Release /b Oracle Database 11g : Les fondamentaux du langage PL/SQL Release 2

Pédagogie

La pédagogie est basée sur le principe de la dynamique de groupe avec alternance d'apports théoriques, de phases de réflexion collectives et individuelles, d'exercices, d'études de cas et de mises en situations observées. Formation / Action participative et interactive : les participants sont acteurs de leur formation notamment lors des mises en situation car ils s'appuient sur leurs connaissances, les expériences et mettront en oeuvre les nouveaux outils présentés au cours de la session.

Profil de l'intervenant

Consultant-formateur expert sur cette thématique. Suivi des compétences techniques et pédagogiques assurée par nos services.

Moyens techniques

Encadrement complet des stagiaires durant la formation. Espace d'accueil, configuration technique des salles et matériel pédagogique dédié pour les formations en centre. Remise d'une documentation pédagogique papier ou numérique à échéance de la formation.

Méthodes d'évaluation des acquis

Exercices individuels et collectifs durant la formation. Evaluation des acquis et attestation de fin de stage adressés avec la facture.

Programme

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Pédagogie

This course is your first step towards success as an Oracle professional, designed to give you a firm foundation in basic database administration. In this class, you'll learn how to install and maintain an Oracle database. You will gain a conceptual understanding of the Oracle database architecture and how its components work and interact with one another. You will also 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 is designed to prepare you for the corresponding Oracle Certified Associate exam. The course does not cover the following key Grid technologies: (1) Enterprise Manager Grid Control(2) Real Application Clusters(3) Streams(4) Data Guard. These technologies are addressed by the following courses:(1) Oracle Enterprise Manager 11g Grid Control(2) Oracle Database 11g: RAC Administration(3) Oracle Database 11g: Implement Streams(4) Oracle Database 11g: Data Guard Administration Learn To: Install Oracle Grid Infrastructure Create and manage users Install and Configure Oracle Database Create and manage storage structures Administer the Oracle Database Backup and Recovery

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Programme

Exploring the Oracle Database Architecture

Oracle Database Architecture Overview

Oracle ASM Architecture Overview

Process Architecture

Memory structures

Logical and physical storage structures

ASM storage components

Managing Undo Data

Data Manipulation

Transactions and Undo Data

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Undo Data Versus Redo Data

Configuring Undo Retention

Implementing Oracle Database Auditing

Describe DBA responsibilities for security

Enable standard database auditing

Specify audit options

Review audit information

Maintain the audit trail

Database Maintenance

Manage optimizer statistics

Manage the Automatic Workload Repository (AWR)

Use the Automatic Database Diagnostic Monitor (ADDM)

Describe and use the advisory framework

Set alert thresholds

Use server-generated alerts

Use automated tasks

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

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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

Describe ways to move data

Create and use directory objects

Use SQL*Loader to move data

Use external tables to move data

General architecture of Oracle Data Pump

Use Data Pump export and import to move data

Working with Support

Use the Enterprise Manager Support Workbench

Work with Oracle Support

Log service requests (SR)

Manage patches

Installing your Oracle Software

Tasks of an Oracle Database Administrator

Tools Used to Administer an Oracle Database

Installation: System Requirements

Oracle Universal Installer (OUI)

Installing Oracle Grid Infrastructure

Installing Oracle Database Software

Silent Install

Creating an Oracle Database

Planning the Database

Using the DBCA to Create a Database

Password Management

Creating a Database Design Template

Using the DBCA to Delete a Database

Managing the Oracle Database Instance

Start and stop the Oracle database and components

Use Oracle Enterprise Manager

Access a database with SQLPlus

Modify database installation parameters

Describe the stages of database startup

Describe database shutdown options

View the alert log

Access dynamic performance views

Manage the ASM Instance

Set up initialization parameter files for ASM instance

Start up and shut down ASM instances

Administer ASM disk groups

Configuring the Oracle Network Environment

Use Enterprise Manager to create and configure the Listener

Enable Oracle Restart to monitor the listener

Use tnsping to test Oracle Net connectivity

Identify when to use shared servers and when to use dedicated servers

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)

Administering User Security

Database User Accounts

Predefined Administrative Accounts

Benefits of Roles

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Predefined Roles

Implementing Profiles

Managing Data Concurrency

Data Concurrency

Enqueue Mechanism

Resolving Lock Conflicts

Deadlocks

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