Oracle9i Database Administration Fundamentals I

Duration: 5 Days

What you will learn

Oracle DBAs manage the industry's most advanced information systems and command some of the highest salaries. This course is your first step towards success as an Oracle professional, designed to give you a firm foundation in basic database tasks. In this class, you'll learn how to design, create, and maintain an Oracle database. Students will gain a conceptual understanding of the Oracle database architecture and how its components work and interact with one another. Students will also learn how to create an operational database and properly manage the various structures in an effective and efficient manner. The lesson topics are reinforced with structured hands-on practices. This course is designed to prepare you for the corresponding Oracle Certified Associate exam: Exam #1Z0-031.

This course counts towards the Hands-on course requirement for the Oracle 9i Database 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 are excellent study and reference tools but DO NOT meet the Hands-on Requirement for certification.

Database Administrators

Prerequisites
Required Prerequisites
Introduction to Oracle9i: SQL

Course Objectives
Manage tablespaces, segments, extents, and blocks
Manage users, privileges, and resources
Create an operational database
Start up and shut down an Oracle instance and database
Manage Oracle database files
Use Globalization Support features

Course Topics

Oracle Architectural Components
Defining an Oracle Database, the Oracle server, and the Oracle Instance
Establishing a connection and creating a session
Understanding the physical structure
Understanding the memory structure
Understanding the process structure
Understanding the logical structure
Outlining the stages of an SQL statement

Getting Started with the Oracle Server
Identifying database administrative tools

Identifying the features of the Universal Installer

Defining the Optimal Flexible Architecture

Creating a database during installation

Creating a new database

Identifying database administrative users
Understanding operating system and password file authentication
SQL*Plus
Enterprise Manager

Managing an Oracle Instance
Creating, managing, and using initialization files: PFILE and SPFILE
Identifying the various states of starting an instance
Identifying the various options available to shutdown an instance
Monitoring Alert and Trace files

Creating a Database
Using the Database Configuration Assistant to create a database
Creating a database manually

Using the Data Dictionary
Identifying the uses and contents of the data dictionary
Using the data dictionary to retrieve information about the database

Maintaining the Control File
Explaining the uses of the control file
Listing the contents of the control file
Multiplexing the control file
Managing control file with Oracle Managed Files (OMF)
Obtaining control file information

Maintaining Redo Log Files
Explaining the purpose of and how online redo log files work
Control log switches and checkpoints
Maintaining online redo log files
Managing online redo log files using OMF
Multiplexing and maintaining online redo log files
Archiving online redo log files
Obtaining online and archived redo log file information

Managing Tablespaces and Datafiles

Describing storage hierarchy

Establishing the difference between SYSTEM and Non-SYSTEM tablespaces
Creating and managing tablespaces
Creating a tablespace when using OMF
Obtaining tablespace and datafile information

Storage Structures and Relationships
Describing the logical structure of the database (segments, extents, blocks)
Listing the segment types and their uses
Understanding the use of extents and their allocation and deallocation
Understanding the structure of a database block
Maintaining storage structures with automatic segment - space management
Maintaining storage structures manually
Obtaining storage structure information

Managing Undo Data

Understanding the difference between automatic undo management and manual undo management

Creating and maintaining UNDO tablespaces
Obtaining undo information

Managing Tables
Creating and maintaining tables using appropriate storage settings
Obtaining table information

Managing Indexes
Listing the different types of indexes and their uses
Creating b-tree and bitmap indexes
Maintaining Indexes

Identifying unused indexes
Obtaining index Information

Related Courses

Oracle9i Complete Self-Study CD Course