

## 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.

### Audience

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