

# Database Administration for Oracle 9i

Course No. OR9IDA • 5 Days

## ► COURSE OVERVIEW

This class will cover Oracle9i and Oracle9i Release 2 features. Oracle DBAs manage the industries 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.

## ► AUDIENCE

Database Administrators

## ► OBJECTIVES

Upon successful completion of this course, students will be able to:

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

## ► PREREQUISITES

Before attending this course, students should have taken the following course or have equivalent knowledge:

- *OR9I01 – Introduction to Oracle 9i*

## ► COURSE OUTLINE

### MODULE 1: ORACLE ARCHITECTURAL COMPONENTS

#### Topics:

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

### MODULE 2: GETTING STARTED WITH THE ORACLE SERVER

#### Topics:

Identifying database administrative tools

### MODULE 3: IDENTIFYING THE FEATURES OF THE UNIVERSAL INSTALLER

### MODULE 4: DEFINING THE OPTIMAL FLEXIBLE ARCHITECTURE

### MODULE 5: CREATING A DATABASE DURING INSTALLATION

### MODULE 6: CREATING A NEW DATABASE



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## MODULE 7: IDENTIFYING DATABASE ADMINISTRATIVE USERS

### Topics:

- Understanding operating system and password file authentication
- SQL\*Plus
- Enterprise Manager

## MODULE 8: MANAGING AN ORACLE INSTANCE

### Topics:

- 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

## MODULE 9: CREATING A DATABASE

### Topics:

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

## MODULE 10: USING THE DATA DICTIONARY

### Topics:

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

## MODULE 11: MAINTAINING THE CONTROL FILE

### Topics:

- 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

## MODULE 12: MAINTAINING REDO LOG FILES

### Topics:

- 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

## MODULE 13: MANAGING TABLESPACES AND DATAFILES

## MODULE 14: DESCRIBING STORAGE HIERARCHY

## MODULE 15: ESTABLISHING THE DIFFERENCE BETWEEN SYSTEM AND NON-SYSTEM TABLESPACES

### Topics:

- Creating and managing tablespaces
- Creating a tablespace when using OMF
- Obtaining tablespace and datafile information

## MODULE 16: STORAGE STRUCTURES AND RELATIONSHIPS

### Topics:

- 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



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## MODULE 17: MANAGING UNDO DATA

## MODULE 18: UNDERSTANDING THE DIFFERENCE BETWEEN AUTOMATIC UNDO MANAGEMENT AND MANUAL UNDO MANAGEMENT

## MODULE 19: CREATING AND MAINTAINING UNDO TABLESPACES

### Topics:

- Obtaining undo information

## MODULE 20: MANAGING TABLES

### Topics:

- Creating and maintaining tables using appropriate storage settings
- Obtaining table information

## MODULE 21: MANAGING INDEXES

### Topics:

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

## MODULE 22: IDENTIFYING UNUSED INDEXES

### Topics:

- Obtaining index Information



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