

Oracle 11g: DBA I

Duration: 30 Hours

Prerequisites

- Oracle SQL

Course Contents

1. Oracle 11g Installation

- Pre-Installation Tasks
 - Logging In to the System as root
 - Checking Hardware Requirement
 - Checking Software Requirement
 - Checking Network Setup
 - Creating Operating System Groups and Users
 - Configuring kernel parameters
 - Identifying Required Software Directories
 - Identifying or Creating ORACLE_BASE directory
 - Installation screens

2. Oracle Database Architect

- System Global Area (SGA)
 - Shared Pool
 - Database Buffer Cache
 - The Redo Log Buffer
 - Java Pool
 - Large pool
 - Stream Pool
- Fixed SGA
 - Automatic Shared Memory Management
 - The Oracle Background Process

3. Oracle Data Block Management

- Introduction
- Data block Overview
 - Header (Common and Variable)
 - Table Directory
 - Row Directory
 - Overhead
 - Row Data
 - Free Space
- Free Space Management
 - Availability and Optimization of Free Space in a Data Block
 - Row Chaining and Migrating
 - PCTFREE, PCTUSED, and Row Chaining
 - The PCTFREE Parameter
 - The PCTUSED Parameter
 - PCTUSED
 - How PCTFREE and PCTUSED Work Together
- Extent Overview
 - When Extents Are Allocated
 - Determine the Number and Size of Extents

- How Extents Are Allocated
- When Extents Are Deallocated
- Extents in Nonclustered Tables
- Extents in Clustered Tables
- Extents in Materialized Views and Their Logs
- Extents in Indexes
- Extents in Temporary Segments
- Extents in Rollback Segments
- Segment Overview
 - Introduction to Data Segments
 - Introduction to Index Segments
 - Introduction to Temporary Segments
 - Operations that Require Temporary Segments
 - Segments in Temporary Tables and Their Indexes
 - How Temporary Segments Are Allocated
 - Allocation of Temporary Segments for Queries
 - Allocation of Temporary Segments for Temporary Tables and Indexes
- Undo Management
 - Undo Quota
 - Automatic Undo Retention
 - External Views

4. Managing Tablespaces

- Using Multiple Tablespaces
- Creating Tablespaces
- Locally Managed Tablespace
 - Creating a Locally Managed Tablespace
 - Segment Space management in locally managed tablespace
- Big File tablespace
 - Creating big file Tablespace
 - Altering a Bigfile Tablespace
 - Identifying a Bigfile Tablespace
- Dictionary Managed Tablespace
 - Creating Dictionary Managed Tablespace
 - Specifying Tablespace Default Storage Parameters
 - Specifying Tablespace Default Storage Parameters
 - Coalescing Free Space in Dictionary-Managed Tablespaces
 - Manually Coalescing Free Space

5. **Managing User Privileges And Roles**

- Understanding User Privileges and Roles
 - System Privileges
 - Accessing Objects in the SYS Schema
 - Object Privileges
 - User Roles
 - Creating Role
- Granting Privileges and Roles
- Grant With Admin Option