

## Oracle 10g DBA Course Contents

### Oracle 9i concepts, Oracle 11g concepts

- a. BASIC LINUX COMMANDS FOR ADMINISTERING ORACLE 10g
- b. Structured Query Language (SQL)
  - What is SQL?
  - What is iSQL \* Plus?
  - Describing Data
  - Querying Data
  - Sorting the Data
  - Manipulating Data
- c. Installing Red hat Enterprise Linux 4 (RHEL4) Operating System
- d. Installing Oracle Database 10g database Software on RHEL4 and Windows 2003 Server.
- e. Creating an Oracle Database
- f. Oracle Database 10g Architecture.
  - Oracle Logical Storage Structures
  - Oracle Logical Database Structures.
  - Oracle Physical Storage Structures.
  - Multiplexing database files.
  - Oracle Memory Structures
- g. Controlling the Database
  - Starting and Stopping ISQL\* Plus
  - Starting and Stopping Database Control
  - Changing the Listener Status
  - Startup and Shutdown
  - Starting Up a Database NOMOUNT
  - Starting Up a Database MOUNT
  - Starting Up a Database OPEN
  - Shutting down the database.
  - SHUTDOWN OPTIONS
- h. Storage Structures
  - Tablespaces and Data Files

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- Space Management in Tablespaces
- Creating a New Tablespace
- Storage for Locally Managed Tablespaces
- Altering a Tablespace
- Actions with Tablespaces
- Dropping Tablespaces
- Viewing Tablespace Information.

## i. Administering Users

- Database User Accounts
- Creating a User
- Profiles and Users
- Authenticating Users
- Default and Temporary Tablespaces
- Checklist for Creating Users
- Privileges
- System Privileges
- Object Privileges
- Assigning Quota to Users
- Assigning Roles to Users
- Roles
- Benefits of Roles
- Predefined Roles
- Secure Roles

## j. Oracle Database Security

- Database Security
- Revoke Unnecessary Privileges from PUBLIC
- Restrict the Operating System Directories Accessible by the User
- Limit Users with Administrative Privileges
- Manage Default User Accounts
- Implement Standard Password Security Features
- Password Account Locking
- Password Expiration and Aging
- Password Verification
- Creating a Password Profile
- Assigning Users to a Password Profile
- Monitoring for Suspicious Activity

## k. Oracle Net Services

- Creating a Listener
- Starting the Listener Server Process
- Oracle Networking and Database Connectivity
- Establishing Oracle Connectivity

## I. Undo Management

- Undo data
- Transactions and Undo Data
- Storing Undo Information
- Monitoring Undo
- Administering Undo
- Configuring Undo Retention
- Guaranteeing Undo Retention
- Sizing the Undo Tablespace

## m. Backup and Recovery Concepts

- Backup and Recovery Issues
- Categories of Failures
- Statement Failures
- User Process Failure
- Network Failure
- User Errors
- Instance Failure
- Instance Recovery
- Phases of Instance Recovery
- Media Failure
- Control Files
- Redo Log Files
- Multiplexing the Redo Log
- Archived Log Files
- ARCHIVELOG Mode

## n. Database Backups

- Recovery Manager (RMAN)
- Configuring Backup Settings
- Scheduling Backups: Strategy
- Scheduling Backups: Options
- Scheduling Backups: Settings
- Scheduling Backups: Schedule
- Backup Control File to Trace
- Manage Backups
- Flash Recovery Area

## o. Database Recovery (Using RMAN)

- Opening a Database
- Changing Instance Status
- Keeping a Database Open
- Loss of a Control File

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- Loss of a Redo Log File
- Loss of a Data File in NOARCHIVELOG Mode
- Loss of a Noncritical Data File in ARCHIVELOG Mode
- Loss of a System-Critical File in ARCHIVELOG Mode

## p. Database Cloning

Cloning a database by using Oracle Enterprise Manager (OEM)

## q. Flash Back Technology

## r. Database Tuning

- Monitoring the Database Aspects
- Tuning the Database Areas
- Monitoring using the ADDM (Automatic Database Diagnostic Monitor)
- Running ADDM using OEM
- Running ADDM using Command prompt
- Using the Statspack
- Creating the perfstat Tablespace
- Running the screate Script
- Testing the Statspack installation
- Working of Statspack
- Implementing the OEM-Tuning Pack
- Using SQL Tuning Advisor
- Running SQL Access Advisor
- Managing AWR (Automatic Workload Repository)
- Accessing AWR through OEM
- Managing AWR using DBMS\_WORKLOAD\_REPOSITORY package
- Using OEM to View AWR Report
- Using SQL Scripts to Generate AWR Report