

## **Oracle 11g DBA Course Content:35-40hours**

### Course Outline

#### **INTRODUCTION TO ORACLE DBA**

- What is DBA?
- Why a Company needs a DBA?
- Roles & Responsibilities of DBA
- Oracle Architecture
- Physical and Logical Phase of Database
- Types of files(Control file, Redo log file and Data file)
- Different types of Data files
- Instance
- SGA(System Global Area) and Background Process

#### **DATABASE CREATION**

- Different Startup Modes
- Different Shutdown Modes
- Types of Database Creation
- Manual Method of Creation
- TABLESPACE MANAGEMENT
- Introduction to Table space
- Types of Table space(BIG & SMALL)
- Temporary Table space
- Altering/Renaming a Table space
- Renaming a data file
- Temporary Groups
- Table space Encryption(11g)

#### **STORAGE PARAMETERS**

- What are segments?
- What are extents?
- What is Blocks?

- Oracle Blocks
- Estimation of Extents
- Dictionary Managed Table space
- Locally Managed Table space
- Storage Parameters(Initial, Next, Min Extents, Xtents, Pctincrease)

## USER MANAGEMENT

- Who are Database Users?
- Why to create a User?
- Creation of Users
- Assigning Privileges
- Creating and granting Roles
- Allocating table space Quotas to Users
- Assigning default table space for the Users
- Setting Profiles for the Users
- Levels of Authentication
- Schema Management(11g)
- Security(11g)

## UNDO MANAGEMENT

- What is Undo?
- Why Undo required?
- Pending offline status
- Brief idea about Rollback segments
- Flashback Features
- Flashback Table
- Flashback query
- Flashback Version query

## SPFILE & OMF

- What is spfile?
- Difference between spfile and pfile
- Advantages of spfile
- What is OMF?
- Advantages of OMF
- Files conventions of OMF

## NETWORKING IN ORACLE

- Introduction to Oracle Networking

- Network default location
- Editing Network file
- Listener.ora
- Tnsnames.ora
- Introduction to Database Links
- Types of Database Links
- Introduction to Materialized views
- Advantages of Materialized view
- Refresh Modes

## **REDO-LOG & CONTROLFILE MANAGEMENT**

- Introduction to Redo log
- Status of Redo logs
- Multiplexing the Redo log files
- Re-creation of Control file
- Renaming the Database
- Multiplexing the Control file

## **LOGICAL BACKUP**

- What is a logical backup
- Why it is required
- Export/import Utility
- Data Pump
- Difference between Data Pump and Traditional Export/import
- Impdp/expdp
- Transportable Table spaces

## **PHYSICAL BACKUP**

- Introduction to Physical backup
- Types of Physical backup
- Cold & Hot backup
- Recovery scenarios
- RMAN backup
- RMAN Point in time recovery
- RMAN 11g new features

## **PEFORMANCE TUNING**

- What is Performance Tuning?
- Why Tuning required?

- Types of Tuning
- Database Tuning
- Application Tuning
- SQL Tuning
- Memory Tuning
- Network Tuning
- Partitioning and Indexes
- Partitioning Enhancements
- AWR/ASH/ASMM/ADDM
- RAT(Real Application Testing)(11g)
- SQL Performance Analyses (11g)
- Row chaining and Row migration
- Resemble Table spaces

### AVAILABILITY

- Introduction to Data Guard
- Types of Standby databases
- 11g New features in Data Guard
- Types of Protection modes
- Active standby/snapshot standby(11g)
- Log Miner
- RMAN Point in time Recovery
- Introduction to Database Cloning
- RMAN Cloning
- Automatic Storage Management(ASM)

### SQL-LOADER

- Introduction to SQL Loader
- Types of files
- Control file
- In file
- Bad file
- Discard file
- Data file

### AUDITING

- What is auditing?
- Why auditing performed?
- Types of Auditing
- Levels of Auditing

## FLASHBACK FEATURES

- Flashback Database
- Flashback Archive(11g)

## MISCELLANEOUS

- Oracle 11g Installations
- Comparison between Oracle 10g and Oracle 11g
- New features Introduced in Oracle 10g
- Up gradation from Oracle 10g to Oracle11g