

## COURSE CONTENTS

### Oracle Concepts & Architecture

- ❖ History of Oracle RDBMS
- ❖ Oracle 10g/11g product editions
- ❖ Understanding physical structure, memory structure, process structure, logical structure.
- ❖ Oracle instance

### Creating and Managing Database:

- ❖ *Managing the database*
- ❖ *Managing the tablespaces and data files/temp files*
- ❖ *Managing control files and online/offline Redolog files Creating and managing control file*
- ❖ *Managing database users and sessions*

### Oracle Networking:

- ❖ Oracle NET architecture
- ❖ TNS Listener using NETCA
- ❖ TNS Client using NETCA
- ❖ Monitoring & Trouble shooting
- ❖ Oracle shared server architecture
- ❖ creating DB links

### Oracle Backup & Recovery:

- ❖ User managed offline (cold) /online (hot) backup through manual and using scripts.

### Flashback

- ❖ Introduction
- ❖ Configuration
- ❖ Flashback query/ table drop/database
- ❖ Flashback version query

### Oracle database Upgradation/ Migration:

- ❖ Introduction
- ❖ Upgradation Vs Migration
- ❖ Upgradation of database Manual/ Automated

### Oracle Backup & Recovery(System managed-RMAN)

- ❖ Introduction
- ❖ RMAN architecture
- ❖ Configuration
- ❖ Online/offline backup using RMAN
- ❖ *Complete & incomplete recovery*
- ❖ *Full backup,incremental backups*
- ❖ *Tablespace-point-in-time recovery*
- ❖ *Disaster recovery*
- ❖ *Recovery of corrupted DB-Blocks*
- ❖ *Cloning the database*
- ❖ *Creating standby database*

### Logical Backup & Restore

- ❖ Introduction Datapump (expdp, impdp)
- ❖ Exporting/importing tables
- ❖ schemas
- ❖ Tablespace
- ❖ Database
- ❖ Transportable within and across the database and platforms

### High Availability

- ❖ Introduction
- ❖ Downloading and applying interim and patch set patches

### Data Guard

- ❖ Introduction
- ❖ Architecture
- ❖ Configuring
- ❖ Standby database
- ❖ Performing switchover and failover

### Oracle Performance Tuning

- ❖ Introduction
- ❖ Proactive Vs Reactive tuning thru effective db configurations and Health management / Periodic health checkup
- ❖ DB fragmentation
- ❖ Managing DB diagnostics for CBO
- ❖ AWR snapshots
- ❖ Generating / interpretation of AWR report

- ❖ Migrating the Oracle DB

### Automatic Storage Management (ASM)

- ❖ Introduction
- ❖ Configuring ASM Instance
- ❖ ASM processes and parameters
- ❖ Managing ASM Disk groups
- ❖ using ASMCMD utility

### 10g and 11g Features

#### RAC

- ❖ Real Application Cluster Architecture
- ❖ RAC Installation and Configuration
- ❖ RAC 12c Backup and Recovery
- ❖ RAC 12c High Performance and database
- ❖ RAC Performance Monitoring and Tuning
- oracle 12c RAC parallel upgrades

### Troubleshooting

- ❖ Introduction
- ❖ Troubleshooting
- ❖ DB Corruption/ Hanging issues
- ❖ Re-linking of oracle executables using Remote Diagnostics Assistant RDA to gather diagnostic data
- Checking for bugs and error
- ❖ Working with oracle

### ORDBMS

- ❖ Introduction to ORDBMS
- ❖ Data Types
- ❖ Object Types
- ❖ Working With Methods
- ❖ Method Overloading
- ❖ Collections
  - VArray
  - Nested Table
  - Indexed Array

