

**Oracle 10g DBA Course Content:35-40hours**

**Course Outline**

- Prerequisites
- Suggested Prerequisites
- Working knowledge of SQL
- Simple Unix commands
- Course Topics
- Introduction (Database Architecture)
- Oracle 10g database architecture
- Installing the Oracle Database Software
- Explain core DBA tasks and tools
- Plan an Oracle installation
- Install Oracle 10g R2 software with the Oracle Universal Installer (OUI)
- Creating an Oracle Database
- Create a database with the Database Configuration Assistant (DBCA)
- Manual Database creation with scripts.
- Generate database creation scripts with the DBCA
- Managing the Oracle Instance
- Start and stop the Oracle database and components
- Use Enterprise Manager (EM)
- Modify database initialization parameters
- Understand the stages of database startup
- View the Alert log
- Use the Data Dictionary
- Managing Database Storage Structures
- Describe table data storage (in blocks)
- Define the purpose of tablespaces and data files
- Understand and utilize Oracle Managed Files (OMF)
- Create and manage tablespaces
- Obtain tablespace information
- Describe the main concepts and functionality of Automatic Storage Management (ASM)
  
- Administering User Security
- Create and manage database user accounts
- Authenticate users
- Assign default storage areas (tablespaces)
- Grant and revoke privileges
- Managing Undo Data
- Explain DML and undo data generation
- Monitor and administer undo
- Describe the difference between undo and redo data
- Configure undo retention
- Configuring the Oracle Network Environment
- Create additional listeners

- Create Net Service aliases
- Configure connect-time failover
- Control the Oracle Net Listener
- Test Oracle Net connectivity
- Identify when to use shared versus dedicated servers
- Backup and Recovery Concepts
- Identify the types of failure that may occur in an Oracle Database
- Describe ways to tune instance recovery
- Identify the importance of checkpoints, redo log files, and archived log files
- Configure ARCHIVELOG mode
- Performing Database Backups
- Create consistent database backups
- Back your database up without shutting it down
- Create incremental backups
- Automate database backups
- Monitor the flash recovery area
- Performing Database Recovery
- Recover from loss of a control file
- Recover from loss of a redo log file
- Perform complete recovery following the loss of a data file
- Performing Flashback
- Describe Flashback database
- Restore the table content to a specific point in the past with Flashback Table
- Recover from a dropped table
- Proactive Maintenance Use statistics
- Manage the Automatic Workload Repository (AWR)
- Active Session History reports (ASH)
- Use the Automatic Database Diagnostic Monitor (ADDM)
- Performance Management
- Use Enterprise Manager pages to monitor performance Use performance related dynamic views Troubleshoot invalid or unusable objects
- Configuring Recovery Manager Using a Flash Recovery Area with RMAN
- Setting Parameters for RMAN Starting RMAN
- Configuring Persistent Settings for RMAN Control File Autobackups
- Retention Policies
- Using Recovery Manager Issuing Recovery Manager Commands
- Parallelization of Backup Sets Compressed Backups Copying the Whole
- Database Making Incremental Backups Block Change Tracking
- Incrementally Updating Backups
- Monitoring RMAN Backups
- Diagnostic Sources The Alert Log Viewing Alerts with EM Alerts Notification
- Editing Thresholds Trace Files
- Database Recovery Recovery Steps
- User-Managed Recovery Procedures: RECOVER Command
- Types of incomplete recovery

- Incomplete Recovery
- Best Practices Recovery
- Using EM
- Simple Recovery through RESETLOGS Point-in-time recovery using RMAN
- Dealing with Database Corruption
- What is block corruption?
- Interpreting DB VERIFY
- The ANALYZE command
- How to Handle Corruptions
- The DBMSREPAIR Package
- Block Media Recovery (BMR)
- Detecting Database Corruptions Using DB VERIFY
- Using RMAN to Repair Corrupt Blocks
- Automatic Storage Management
- ASM Concepts
- ASM General Architecture
- Creating an ASM instance
- Creating tablespaces that use ASM storage
- Viewing ASM information
- Migrating a tablespace to use ASM storage
- Database Refresh/ Database cloning
- High Availability
- Data Guard
- Overview of Data Guard
- Configuring Data Guard with Real-time apply
- Along with this we also discuss basic Linux commands along with Linux
- Installation and VMware