



ORACLE 10G ADMINISTRATION



PROGRAMMING & DEVELOPMENT

Course Curriculum

Basic – 30 Hours



ORACLE 10G ADMINISTRATION

Module 1 : Introduction to Oracle Database Architecture

- Oracle Database Architecture Overview
- Oracle ASM Architecture Overview
- Process Architecture

Module 2 : Installing Oracle Software

- Environmental Setup
- Install software with the Oracle Universal Installer (OUI)

Module 3 : Creating an Oracle Database

- Create a database with the Database Configuration Assistant (DBCA)
- Create a database design template with the DBCA
- Using the DBCA to Delete a Database

Module 4 : Managing the Oracle Database Instance

- Start and stop the Oracle database and Components
- Access a database with SQLPlus
- Modify database installation parameters
- View the alert log

Module 5 : Manage the ASM Instance

- Set up initialization parameter files for ASM instance
- Start up and shut down ASM instances

Module 6 : Configuring the Oracle Network Environment

- Use Enterprise Manager to create and configure the Listener



- Use tnsping to test Oracle Net connectivity

Module 7 : Managing Database Storage Structures

- Storage Structures
- Actions with Tablespaces
- Space Management in Tablespaces

Module 8: Administering User Security

- Database User Accounts
- Predefined Administrative Accounts
- Benefits of Roles
- Predefined Roles
- Implementing Profiles

Module 9: Managing Data Concurrency

- Data Concurrency
- Enqueue Mechanism
- Resolving Lock Conflicts
- Deadlocks

Module 10: Managing Undo Data

- Data Manipulation
- Transactions and Undo Data
- Undo Data Versus Redo Data
- Configuring Undo Retention

Module 11: Implementing Oracle Database Auditing

- Describe DBA responsibilities for security
- Enable Standard Database auditing
- Specify audit options
- Review audit information

Module 12: Database Management

- Manage optimizer statistics
- Manage the Automatic Workload Repository (AWR)
- Use the Automatic Database Diagnostic Monitor (ADDM)
- Describe and use the advisory framework
- Set alert thresholds
- Use server-generated alerts

Module 13: Performance Management

- Managing Memory Components
- Enabling Automatic Memory Management (AMM)
- Automatic Shared Memory Advisor
- Using Memory Advisors
- Dynamic performance statistics
- Troubleshooting and tuning views
- Invalid and unusable objects



Module 14: Backup and Recovery Concepts

- User Error
- Media Failure
- Using the MTTR Advisor
- Understanding Instance Recovery

Module 15: Performing Flashback

- Describe Flashback database
- Restore the table content
- Recover from a dropped table
- View the contents of the database as of any single point in time with flashback query

Module 16: Moving Data

- Create and use directory objects

- Use SQL Loader to load data from a non-oracle database
- Use external tables to move data via platform-independent files

Module 17: Working with Support

- Use the Enterprise Manager Support Workbench
- Work with Oracle Support
- Log Service Requests (SR)
- Manage Patches

Module 18: RMAN

- Backup Strategies
- FLASH recovery area
- RMAN Architecture
- RMAN backup components
- RMAN catalog and configuration
- RMAN Commands
- Monitoring RMAN backups



Module 19: Using the RMAN Recovery Catalog

- Identify situations that require RMAN recovery catalog
- Create and configure a recovery catalog
- Synchronize the recovery catalog
- Create and Use RMAN stored scripts
- Back up the recovery catalog

Module 20: Backup Specification

- Configure backup settings
- Allocate channels to use in backing up

Module 21: Using RMAN to Create Backups

- Create image file backups



- Create a whole database backup
- Create duplex backup and back up backups sets
- Create a multisection, compressed and encrypted backup
- Report on and maintain backups

Module 22: User-Managed Backup and Recovery

- Recover from a lost TEMP file
- Recover from a lost redo log group
- Recover from the loss of password file
- Backup and recover a control file

Module 23: RMAN to perform Recovery

- Perform incomplete recovery using RMAN
- Recover using incrementally updated backups
- Switch to image copies for fast recovery
- Recover using a backup control file



Module 24: Disaster recovery

- Creating duplicate database
- RMAN to duplicate database

Module 25: Monitoring and Tuning RMAN

- Monitoring RMAN sessions
- Tuning RMAN
- Configure RMAN for Asynchronous I/O