ORACLE DBA – course curriculum

Introduction to Linux

- History of Linux
- Components of Linux
- Linux Basic Commands
- File permission to users

Introduction to DBMS

- What is a database?
- History of Oracle database
- Role of a Database Administrator

Basic SQL

- What are DML, DDL and DCL Statement
- Examples on DML, DDL and DCL
- Creation of Table, Views, Sequence, Synonyms & Index

Oracle Database Architecture

- Detail explanation on components of an Oracle database architecture
- Oracle database memory and process architecture

Installing Oracle database software (11g R2)

- Pre-requisites for a successful Oracle software installation
- Installation of oracle software using GUI and Manual Method
- Installation of Oracle 11g R2 database software

Oracle Database Creation

- Introduction
- Planning for an Oracle database creation
- Creating an Oracle database using the MANUAL method
- Creating an Oracle database using the GUI Tool (DBCA)
- Startup and Shutdown Methods
- Best practices using OFA for database creation

Database Storage Management

- Introduction
- Tablespaces creation methods
- Datafiles creation methods
- How to resize/rename the table space/datafiles
- How to Change the location of datafiles
- Redo log file architecture and best practices
- How to resize/rename the redo log file
- Benefits of Archiving, how to enable/disable Archive log mode for a database
- Temporary tablespaces and temporary table space groups

Oracle Networking

- Oracle listener & TNS configuration using NETMGR
- Managing & Distributing by using DB-link concept
- Oracle database connections from other systems
- Oracle Shared server Dispatcher & Architecture

User Administration and Security

- Create database users
- Database resource management (User's Profile and Role)
- Locking/unlocking a user account
- User's password management

User Managed Backup and Recovery

- Introduction: Backup and Recovery Strategy for user managed backup
- How to backup an Oracle database using COLD BACKUP
- How to backup an Oracle database using HOT BACKUP
- Recovery scenarios using User managed backup

RMAN Backup and Recovery

- RMAN backup of Database, controlfile,Archivelogfiles
- Database backup using RMAN with normal and compressed mode
- Database backup using catalog and no-catalog and virtual catalog
- Querying the backup details using Catalog database
- Benefits of Fast Recovery Area using RMAN backup for storage
- How to backup incremental database
- Recovery scenarios using RMAN
- Tablespace Point in time recovery (TSPITR)

Oracle Datapump {Logical backup & Restore}

- Introduction on Datapump(Expdp,Impdp) Utilities
- Benefits of Logical backup & Physical backup
- Exporting/Importing Tables, Schema Tablespace
- database and Transportable tablespace
- Backup methods using datapump

Flashback Feature

- Types of flashback and their benefits
- Flashback Query, Flashback Table to past time
- Flash back of Recovering Drop tables
- Flashback Archive

Oracle Enterprise Manager (grid Control)

- Introduction
- How to install and configure
- Monitor databases and performance of the databases

Cloning

- Cloning database using RMAN from Active Database
- Cloning database using same datafile storage locations and different datafile
- storage locations

Logminer and SQL Loader

- Reading/Extracting the content of Redologs (Online/Archived)

Oracle Dbase Patching/Patch Management

- Downloading/Applying Interim & Patchset patches using Opatch
- Applying cpu and psu patches
- Oracle DBase Upgradation and Migration
- Upgrating database from 11g to 12c version

Oracle Data Guard

- Oracle Dataguard Architecture
- Creation of physical standby database using RMAN and Manual Method
- How to configure Active standby database and snapshot standby database
- Data guard Modes and Switchover/Failover
- Scenarios on restore and recovery

Oracle Automatic Storage Management (ASM)

- Setup ASM by using Grid Infrastructure Utility
- Database Migration from Non-ASM to ASM

Oracle Database Performance Tuning

- Basic overview on PT and troubleshooting
- Routine Day-to-Day Health Management tasks
- Introduction on Proactive & reactive Tuning
- Diagnostic tools such as Alert logfile, Trace file, TKPROF
- AWR Report, ADDM Report and ASH Report

Oracle 12c New Features

- Introduction, Architecture, Installation & Creation of DBase
- Multi-Tenancy Database (PDB,CDBs)
- SQL Statement & Table level recovery(TPITR) in RMAN
- Creating a user, Tablesapce & In-memory Area

Oracle RAC

- Basic Introduction & overview on RAC

Additional Support

- Resume Preparation
- Study Material
- Interview Questions based on the topics
- Mock interview