

# Details Course Outlines

## Module-01

### Introduction

- ✓ What is a Database
- ✓ Role of a DBA
- ✓ OLTP vs OLAP Databases
- ✓ What is Oracle 11g and 12g
- ✓ Database abc's
- ✓ Undo vs Redo Data
- ✓ Oracle Instance vs Database
- ✓ Quiz Time!!!

## Module-02

### Oracle Process Architecture

- ✓ Process Architecture
- ✓ Database Writer Process
- ✓ Log writer Process
- ✓ Checkpoint Process
- ✓ SMON Process and PMON Process
- ✓ RECO Process and Archiver Process
- ✓ SMON Process and PMON Process
- ✓ Quiz Time!!!

## Module-03

### Oracle Memory Architecture

- ✓ Memory Architecture
- ✓ Database Buffer Cache
- ✓ Shared Pool
- ✓ REDO log buffer
- ✓ Large Pool
- ✓ Java Pool and Streams Pool
- ✓ Keep Buffer Pool
- ✓ Recycle Buffer Pool
- ✓ nK Buffer Cache
- ✓ Program Global Area (PGA)
- ✓ Dedicated vs Shared Databases
- ✓ PGA in a Shared Environment
- ✓ Quiz Time!!!

## Module-04

### Architecture Recap

- ✓ Architecture Full Picture
- ✓ Architecture Quiz!!!

## Module-05

### Software Installation

- ✓ Virtual Machine Installation
- ✓ Linux Installation
- ✓ Oracle Software Installation
- ✓ Oracle Parameter Files
- ✓ Database creation - Manual Method Demo
- ✓ Oracle Startup Steps...
- ✓ Oracle Shutdown methods
- ✓ Oracle 12c Upgrade

## Module-06

### Tablespace Management

- ✓ How data is stored in a Database?
- ✓ Tablespace Concepts
- ✓ Online and Offline Tablespaces
- ✓ Let's create a Tablespace...
- ✓ Let's add more space to the Database...
- ✓ Tablespace Demo 1 and Demo 2
- ✓ Tablespaces with different block sizes
- ✓ Temporary Tablespace Management
- ✓ Temporary Tablespace Groups
- ✓ Extent Management (Local vs Dictionary managed)

## Module-07

### UNDO Management

- ✓ UNDO Concepts
- ✓ Read Consistency
- ✓ ORA-01555 snapshot too old error
- ✓ Automatic Undo Management
- ✓ UNDO Management
- ✓ Configuring Undo Retention Period
- ✓ Retention Guarantee!!

## Module-08

### REDO Management

- ✓ REDO Concepts
- ✓ REDO Logfile Management Demo1 and Demo 2
- ✓ Archival Concepts
- ✓ Archival Log Mode Demo

## Module-09

### User Management

- ✓ User Management Concepts
- ✓ User Management Demo 1 and Demo 2
- ✓ User Creation Exercise
- ✓ Privileges
- ✓ System Privileges Demo
- ✓ Object Privileges Demo
- ✓ Revoking User Privileges
- ✓ Revoking System Privileges
- ✓ Revoking Object Privileges
- ✓ Let's practice what we learnt so far...
- ✓ Role Management Concepts
- ✓ Role Management Demo
- ✓ User Profiles and User Profiles Demo
- ✓ Managing Passwords using Profiles

## Module-10

### Oracle Networking

- ✓ Networking Concepts
- ✓ Listener Configuration Demo
- ✓ TNSNAMES Configuration Demo
- ✓ Database Link Concepts
- ✓ Public Database Link
- ✓ Private Database Link

## Module-11

### Data Dictionary

- ✓ What is Data Dictionary?
- ✓ Static Data Dictionary Views
- ✓ Dynamic Data Dictionary Views
- ✓ Miscellaneous Data Dictionary Views
- ✓ Data Dictionary Demo

## Module-12

### Diagnostic Data

- ✓ What is Diagnostic Data?
- ✓ Automatic Diagnostic Repository (ADR)
- ✓ Manually navigating through the Diagnostic Data
- ✓ Automatic Diagnostic Repository Command Interpreter (ADRCI)
- ✓ Using ADRCI to navigate through Diagnostic Data
- ✓ Creating an Incident Package for Oracle Support

## Module-13

### Backup and Recovery (User Managed)

- ✓ Backup and Recovery Concepts 1 and Concept 2
- ✓ Backup Types
- ✓ Performing a Cold Backup manually
- ✓ Hot Backup Steps and Hot Backup Demo
- ✓ Recover a Control file from media failure
- ✓ Recover a System Data file from media failure
- ✓ Recover a non-system data file from media failure

## Module-14

### Backup and Recovery (RMAN Backup)

- ✓ RMAN Backup Types
- ✓ Incremental Backup
- ✓ Recovery Manager (RMAN) Terminology
- ✓ Image Copies VS Backup sets
- ✓ Why RMAN?
- ✓ RMAN Commands

## Module-15

### Database Objects-Materialized Views

- ✓ Materialized Views Introduction
- ✓ Materialized Views creation Options
- ✓ Materialized Views with ON COMMIT option
- ✓ Materialized Views with ON DEMAND option
- ✓ Materialized Views with REFRESH FAST option
- ✓ Timing the refresh
- ✓ Query Rewrite functionality
- ✓ Materialized Views Recap

## Module-16

### Table Partitioning

- ✓ Table Partitioning Introduction
- ✓ Range Partition based on range of values
- ✓ List Partition based on list of values
- ✓ Hash Partition based on the hash key
- ✓ Composite Partitioning by mixing things up!!
- ✓ Interval Partition for automatic partition creation
- ✓ Adding/Dropping Partitions
- ✓ Table Partitioning Recap

## Module-17

### Project Work

- ✓ Project Work!!!
- ✓ Where to go from here?
- ✓ Choose your own destination