

# Oracle DBA 11g Advanced Course Content

## **(Oracle Certified Oracle Database 11g Administrator)**

Oracle Database 11g: SQL Fundamentals certification exams has a defined Syllabus to check your expertise. As per Oracle Official website, following is the list of chapters and covered topic to be examined in the certification exams.

### **SQL:**

#### **Retrieving Data Using the SQL SELECT Statement                      Day 1**

- List the capabilities of SQL SELECT statements
- Execute a basic SELECT statement

#### **Restricting and Sorting Data**

- Limit the rows that are retrieved by a query
- Sort the rows that are retrieved by a query
- Use ampersand substitution to restrict and sort output at runtime

#### **Using Single-Row Functions to Customize Output**

- Describe various types of functions available in SQL
- Use character, number, and date functions in SELECT statements

#### **Using Conversion Functions and Conditional Expressions**

- Describe various types of functions available in SQL
- Use character, number, and date functions in SELECT statements

#### **Reporting Aggregated Data Using the Group Functions                      Day 2**

- Identify the available group functions
- Describe the use of group functions
- Group data by using the GROUP BY clause
- Include or exclude grouped rows by using the HAVING clause

#### **Displaying Data from Multiple Tables**

- Write SELECT statements to access data from more than one table using equijoins and non equijoins
- Join a table to itself by using a self-join
- View data that generally does not meet a join condition by using outer joins
- Generate a Cartesian product of all rows from two or more tables

## Using Subqueries to Solve Queries

**Day3**

- Define subqueries
- Describe the types of problems that the subqueries can solve
- List the types of subqueries
- Write single-row and multiple-row subqueries

## Using the Set Operators

- Describe set operators
- Use a set operator to combine multiple queries into a single query
- Control the order of rows returned

## Manipulating Data

- Describe each data manipulation language (DML) statement
- Insert rows into a table
- Update rows in a table
- Delete rows from a table
- Control transactions

## Using DDL Statements to Create and Manage Tables

**Day 4**

- Categorize the main database objects
- Review the table structure
- List the data types that are available for columns
- Create a simple table
- Explain how constraints are created at the time of table creation
- Describe how schema objects work

## Creating Other Schema Objects

- Create simple and complex views
- Retrieve data from views
- Create, maintain, and use sequences
- Create and maintain indexes
- Create private and public synonyms

## Oracle Database

### Oracle DBA Training Syllabus – Part 1 Introduction (Database Architecture)

Day 5

Describe course objectives

Explore the Oracle 10g database architecture

### Installing the Oracle Database Software

Explain core DBA tasks and tools

Plan an Oracle installation

Use optimal flexible architecture

Install software with the Oracle Universal Installer (OUI)

### Creating an Oracle Database

Day 6

Create a database with the Database Configuration Assistant (DBCA)

Create a database design template with the DBCA

Generate database creation scripts with the DBCA

### Managing the Oracle Instance

Start and stop the Oracle database and components

Use Enterprise Manager (EM)

Access a database with SQL\*Plus and iSQL\*Plus

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

Create and manage roles

Create and manage profiles

Implement standard password security features

Control resource usage by users