ICTD

المركز العالمي للتدريب والتطوير

International Centre For Training & Development

ORACLE DATABASE

Management 11g (SQL, OCA, OCP)

Course Introduction:

This course offers a comprehensive introduction to Oracle Database 11g. You learn how to design, build and manage robust database applications with Oracle database tools. Oracle 11g is a large, complex system. This course provides an overview of the power and flexibility of Oracle databases and serves as the foundation for other courses in the Learning Tree Oracle Databases curriculum

Course Objectives:

- Oracle 11g is a large, complex system. This course provides an overview of the power and flexibility of Oracle databases and serves as the foundation for other courses in the Learning Tree Oracle Databases curriculum.
- Extensive hands-on exercises provide invaluable, practical experience building Oracle 11g databases. The knowledge you learn in this course can be immediately applied to your job when you go back to work. What is the Oracle database server?
- Oracle database server is a complex relational DBMS that supports large-scale databases and enable high speed transactions, better business decisions and sophisticated applications. The most popular versions supported are Oracle Database 11g R2 and Oracle 10g.

Who Should Attend?

This course benefits a wide range of professionals, including:

- Developers, analysts, administrators, managers, programmers, consultants, power users and others who design and write Oracle applications using Oracle 11g
- Database administrators who want to become proficient in querying and manipulating an Oracle database
- Data processing professionals with experience working in a traditional database system (hierarchical or network), who are now moving to a client/server or Web environment Technology managers and project leaders who need a general overview of Oracle 11g

Course Outline:

Introduction to Oracle 11g Technology

- Applying data modeling techniques
- Oracle database tools: SQL Developer and SQL*Plus

Database Installation and Administration

Assessing the Oracle database architecture

- Defining memory structures, processes and SGA

- Establishing a storage framework

Managing Oracle databases

- Configuring Oracle Database 11g
- Working with Oracle SQL Developer

Accessing and Manipulating Data

retrieving data efficiently with SQL Developer

- Selecting, restricting and ordering data
- Avoiding pitfalls in null values
- Exploiting built-in SQL functions

Applying powerful SQL techniques

- Joins, outer joins and ANSI joins
- Grouping data and applying aggregate functions
- Combining result sets with set operators
- Comparing simple and correlated subqueries

Modifying data with SQL statements

- Inserting, updating, deleting and merging data
- Controlling transactions with ROLLBACK and COMMIT

Creating and Managing Database Objects

Implementing the physical design

- Mapping logical model to physical design
- Creating users and schemas

Constructing and maintaining tables

- Altering and dropping columns
- Restoring data with Flashback and the recycle bin

Building views, sequences and synonyms

- Filtering data with views
- Generating unique IDs with sequences
- Streamlining access to objects with synonyms

Maintaining Integrity, Security and Performance

Enforcing integrity

- Implementing referential integrity with primary, unique and foreign keys

- Managing transactions and data with deferred and enforced constraints

Securing the data

- Authenticating users with password aging
- Controlling access with system and object privileges
- Simplifying privilege management with roles

Improving performance

- Guidelines for creating indexes
- Indexing the data for optimal access
- Managing unique, non unique and composite indexes

Programming with PL/SQL

Writing basic programs

- Controlling logic with IF and CASE statements
- Performing iterations with WHILE and FOR LOOPs
- Defining and managing PL/SQL records
- Trapping errors with exception handlers

Processing data with cursors

- Declaring cursors to perform row-level operations
- Passing parameters to cursors to increase flexibility
- Simplifying cursors with FOR LOOPs
- Improving performance with CURRENT OF or ROWID

Implementing Server-Side Logic

Modularizing code

- Constructing procedures and functions
- Debugging programs with DBMS_OUTPUT

Creating packages and triggers

- Bundling subprograms in packages
- Defining statement and row-level triggers
- Governing triggers with conditional predicates

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionaires
- Group Work
- Discussion
- Presentation

Course Fees:

To be advice as per course location. This rate includes participant's manual, Hands-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session