Course : Oracle Database, getting started

Versions 23ai to 12c
Practical course - 5d - 35h00 - Ref. ORM
Price : 2740 € E.T.

★★★★⯪ 4,6 / 5

This intensive course will give you all the skills you need to use the Oracle Database DBMS efficiently and reliably: relational principles, SQL concepts and practice, physical organization and transaction management. The main commands will be analyzed and implemented. The functionalities presented are valid up to version 23ai of the product.

Teaching objectives

At the end of the training, the participant will be able to:

- Oracle database architecture
- Understanding the relational model
- Creating a database with schema objects
- Handling data with SQL and PL/SQL
- Discover database management tasks

Intended audience

IT professionals who need to develop for Oracle or who want a first approach to administration.

Prerequisites

Basic programming skills.

Practical details

Hands-on work

Each participant has access to a workshop built around the Oracle DBMS, enabling them to apply any new concepts immediately.

Course schedule

PARTICIPANTS

IT professionals who need to develop for Oracle or who want a first approach to administration.

PREREQUISITES

Basic programming skills.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 Introduction

- The Oracle server. The different versions. The different editions.
- The relational model. Table and relationship concepts.
- Integrity constraints.
- Tools. SQL Developer. ISQL*Plus tool.
- Introduction to SQL. Oracle data types.
- Table creation.
- Introduction to update instructions.
- Using sequences.
- Introduction to SELECT.
- Data manipulation. Introduction to transactions.

2 SQL query language

- Various SQL functions.
- Sort and delete duplicates.
- Functions and aggregates.
- Type conversion and NULL value.
- Multi-table queries.
- Joins. Nested queries.
- Set operators.

Exercise
Writing simple SQL queries. Using functions, sorting and prefixes. Using dates. Using aggregates. Joins and nested queries. Use of GROUP BY and HAVING.

3 Introduction to PL/SQL

- PL/SQL language instructions.
- Variable types.
- Control instructions: conditions, iterations.
- Error handling through the exception mechanism.
- Structuring PL/SQL programs.
- Procedures and functions.
- Defining and using stored procedures.
- Package specification.
- Interaction with the database.
- Implicit and explicit cursors.

Exercise
Types and variables. Cursors and database access. Stored processing (procedures, functions and packages). Error handling.

4) LMD triggers in Oracle

- Introduction to Oracle triggers.
- Trigger structure (Event/Action).
- Types of LMD triggers (statement and row triggers).
- Trigger actions (automatic data update, cancellation of an illegal action, audit).
- Using triggers.
- Create and use instruction triggers.
- Use of line triggers: NEW and : OLD in these triggers. Managing triggers.

Exercise
Creating and using instruction triggers. Create and use line triggers.

5) Database architecture and objects

- Table handling. Table creation.
- Definition of integrity constraints.
- Deferred integrity constraints.
- Deleting tables and the recycle garbage can.
- Use of temporary global tables.
- Using views and synonyms: create and use views and synonyms.
- Data organization: Oracle storage models. Defining and using indexes.
- Data dictionary: the benefits of a data dictionary. Tables and dictionary views.

Exercise
Create and use tables and views. Dictionary queries. Use temporary tables.

6) Transaction management

- Transaction-based database access: partial cancellation of transactions. PL/SQL and transactions.
- Competition management and data locking. Standard management features.
- Read-only transactions, isolation levels, explicit locking.

Exercise
COMMIT, ROLLBACK AND SAVEPOINT. Deferred integrity constraints. Autonomous transactions. Transaction concurrency. Isolation levels and explicit locking.

7) Security and users

- Access rights.
- Object privileges, system privileges and roles.
- Granting and revoking access rights.
- Rights to views and stored processes.
- User management.
- User authentication.
- User profiles and resource usage limits.

Exercise
Defining rights. Use of roles.

8 Supplements

- Oracle database files.
- Notion of instance.
- Oracle Net Services (SQL*Net).

Hands-on work
Client configuration for database access.

Dates and locations

REMOTE CLASS
2026 : 8 June, 19 Oct.

PARIS LA DÉFENSE
2026 : 8 June, 19 Oct.