![orsys TRAINING 50 YEARS]

Course : Migration from Oracle to PostgreSQL

Practical course - 2d - 14h00 - Ref. OPL
Price : 1600 CHF E.T.

★★★★★   **5 / 5**

This course shows you how to migrate from Oracle databases to PostgreSQL. It saves you time, as it presents an approach and methodology that works. You'll learn about the similarities and differences between the two DBMSs, such as data types and implementations, SQL, PL/SQL and PL/pgSQL languages.

◎ Teaching objectives

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

- ✔ Discover the main equivalences and differences between an Oracle DBB and a PostgreSQL DBB
- ✔ Define a methodology for migrating from an Oracle DB to a PostgreSQL DB
- ✔ Evaluate implementation differences: instances, databases, schemas and users
- ✔ Define the main differences between Oracle's PL/SQL and PostgreSQL's PL/pgSQL

Intended audience
Project managers and database developers.

Prerequisites
Good knowledge of SQL and PL/SQL. Knowledge of Oracle administration and PostgreSQL administration or have taken the associated courses (Ref. ORC and POS).

Practical details
Hands-on work
Starting with an Oracle database, the practical exercises enable you to master PostgreSQL migration. Migration methods are presented for Linux.

Course schedule

(1) Introduction and reminders

- Oracle database architecture and administration.
- Reminder of PostgreSQL database architecture.
- Review of SQL and PL/SQL languages.
- Comparison of Oracle and PostgreSQL architectures.
- Basics and diagrams.
- Storage and tablespaces.
- Backups and restores.

Hands-on work
Create a PostgreSQL database. Create a role with an associated schema.

(2) Preparing for migration

- Migrating to PostgreSQL? The right questions to ask. Migration checklist.
- Application study and compatibility with PostgreSQL.
- Migration test procedures.
- Test procedure for the migrated environment.

Hands-on work
Creation of a checklist of important points to consider during a migration.

(3) Migration of different types and objects

- Oracle DB types vs. PostgreSQL DB types.
- Tables and charts.
- The use of sequences and views.
- Table partitioning.
- Materialized views.

Hands-on work
Types. Tables. Updating views.

(4) SQL migration

- Update instructions.
- SQL functions.
- Pseudo columns.
- Syntax specificities (operators, explicit conversion, etc.).
- Hierarchical queries and use of the recursive WITH clause.
- Using analytical functions.

Hands-on work
SQL functions. Pseudo columns. Using recursion with WITH. Analytical functions

(5) PL/SQL to PL/pgSQL migration

- Connections and loops.
- Cursors and cursor variables.
- Stored procedures and functions.
- Error handling.
- Triggers.

Hands-on work
FOR loops. "Procedures" stored in PostgreSQL. Error handling. Triggers.

- Script adaptation.
- Statistics and backup management.
- Post-migration application analysis.
- Optional tasks.

Dates and locations

REMOTE CLASS
2026 : 30 Mar., 22 June, 5 Nov.