PostgreSQL, Administration

Hands-on course of 3 days - 21h
Ref.: PGA - Price 2024: €1 930 (excl. taxes)

EDUCATIONAL OBJECTIVES
At the end of the training, the trainee will be able to:

Installing the PostgreSQL DBMS

Determining the main features of PostgreSQL database administration

Creating and managing a database

Managing access to users

Managing database security.

Participants

THE PROGRAMME

last updated: 01/2018

1) » Overview of PostgreSQL
- Overview of projects and tools.
- Comparison with other RDBMS engines.

2) » Installation
- Steps of installation.
- Linux distributions: From RPM or source code.
- Binaries for MS-Windows. Installation wizard. Preparing the operating system.

3) » Initializing and executing an instance
- Principle. Shutting down and rebooting the server.
- Server process architecture.
- Creating additional instances.

4) » Connections and administrative tools
- Sessions. Server side (pg_hba.conf). Security (SSL, etc.).
- Access rights Role management (users and groups). Granting and revoking privileges.
- Comand line and graphical tools. psql (shell SQL). PgAdminIII, phpPgAdmin, Pgpool.

5) » Defining data
- Creating schemas, tables, indices, domains, etc.
- Types of data, operators, and functions.

6) » Programming for administration
- Server side Stored procedures. PL/pgSQL. PL/Perl. C extensions. Triggers.
- Stored functions.
- Client side. PHP Web applications. PostgreSQL and PDO drivers. Java Web applications.

7) » Routine administration
- Defining files. Creating namespaces (tablespaces, files).
- Directory tree and server files.
- Server administration. Configuration. Binary logs and memory.

- The statistics collector and activity logs.
- Maintenance and operating tasks. Analyzing queries with Explain.
- Analyzing and cleaning up table and index spaces with Vacuum.
- Reconstructing indexes with Reindex.

8) » Backups and restores
- Backups with pg_dump and pg_dumpall.
- Restores with pg_restore and psql.
- Binary logs: Write Ahead Logging (WAL).

DATES

REMOTE CLASS
2024 : 11 Sep, 02 Dec