

# 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.
- Command 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.

## 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.

## TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

## TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

## ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@ORSYS.fr to review your request and its feasibility.

- 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

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### REMOTE CLASS

2024 : 12 Jun, 11 Sep, 02 Dec