

# Course : PostgreSQL : Backup and restore techniques

Practical course - 4d - 28h00 - Ref. SQU

Price : 2350 € E.T.

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In this course you will learn how to define and implement a backup plan. You'll learn how to back up and restore data from a PostgreSQL instance. Finally, you'll use the main backup and restore tools available in the community (pitrery, pg\_rman, Barman...).

## Teaching objectives

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

- ✓ Set up a backup plan
- ✓ Efficiently restore data from a PostgreSQL instance
- ✓ Use the main backup and restore tools available
- ✓ Backup purging and retention
- ✓ Manage backups, recovery and partial recovery

## Intended audience

Database administrators with a good knowledge of PostgreSQL.

## Prerequisites

Master the administration of a PostgreSQL instance.

## Course schedule

### 1 Introduction to backup/restore

- PostgreSQL server and its processes and files.
- Implementing a backup strategy, points to consider.
- Logical vs. physical backup.
- Backup maintenance, retention and purging.
- WAL transaction log.
- Continuous archiving mode, archiving destination(s).

### Hands-on work

Configure continuous archiving, add archive destinations via pg\_recievewal

### PARTICIPANTS

Database administrators with a good knowledge of PostgreSQL.

### PREREQUISITES

Master the administration of a PostgreSQL instance.

### 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.

## 2 Logical backup and related techniques

- Using pg\_dump, backup levels and formats.
- Parallelization of backups and Directory format.
- Using pg\_dumpall and saving global objects.
- Logical backups managed by pg\_back.
- Restore backups with pg\_restore.
- Moving data on the fly using pgloader.
- Use of "foreign tables", postgres\_fdw, file\_fdw extensions.

## 3 Manual physical backup/restore

- Tar, cpio, rsync commands.
- Using file system snapshots.
- Hot backup: pg\_start\_backup, pg\_stop\_backup.
- Hot backup using pg\_basebackup.
- Recovering a PostgreSQL instance after a failure.
- Partial recovery, finding the target point, recovery and timelines.

### Hands-on work

Hot backup, restore, recovery and partial recovery

## 4 Backup/restore with PGBACKREST

- Software installation.
- Configuration.
- Backup purging and retention.
- Backup / restore / recovery by PGBACKREST.
- Incremental / differential backup.

### Hands-on work

Hot backup, backup management, restore, recovery and partial recovery

## 5 Backup / restore by BARMAN

- Software installation.
- Configuration.
- Backup purging and retention.
- Backup / restore / recovery by BARMAN.

### Hands-on work

Hot backup, backup management, restore, recovery and partial recovery

## 6 Backup / restore by PITRERY

- Software installation.
- Configuration.
- Backup purging and retention.
- Backup / restore / recovery by PITRERY.

### Hands-on work

Hot backup, backup management, restore, recovery and partial recovery

## Dates and locations

### REMOTE CLASS

2026 : 31 Mar., 26 May, 13 Oct., 15 Dec.

### PARIS LA DÉFENSE

2026 : 31 Mar., 26 May, 13 Oct., 15 Dec.

## 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.