

## Advanced PostgreSQL for Administrators (code: PgSQL-Admin-201)

### Overview

The course is intended for administrators who are responsible for PostgreSQL databases and who want to discover advanced possibilities offered by that system. We will show how to achieve *100% efficiency* for your database and we will introduce advanced *backup* and *replication* techniques. The training programme includes accessing and interpreting internal metrics of the database and tips on tuning less known parameters.

For those who haven't used PostgreSQL before, we recommend combining this course with *PostgreSQL for Administrators* to create a single comprehensive, intensive training.

Our instructors have many years of experience with PostgreSQL, both as administrators and as programmers. One of our trainers is a **PostgreSQL contributor** and a regular speaker at the world's largest conference on the topic.

### Ask for details

Phone +44 203 608 6289

info@alx.training

### Duration

2 days

### Agenda

1. Installing extensions
  - Contrib extensions
  - Embedded programming languages
    - PL/Python
    - PL/Perl (trusted and untrusted)
    - PL/v8
  - External extensions
    - Compilation and extensions installation
  - Stored procedures in C
2. Monitoring database work
  - System tools
    - vmstat, top, iostat
    - strace, systemtap
  - System perspectives
    - Monitoring index usage
    - Monitoring the bgwriter process
    - Troubleshooting deadlocks
    - Preventing transaction wraparound
  - Dedicated monitoring tools
    - \* `_check_postgres.pl_script`
    - Log parsers: `pgFouine`, `_pg_badger_`
    - Automatic errors notification: `_tail_n_mail_`
3. Replications, backups, partitioning
  - Point in Time Recovery
  - Log shipping
  - Streaming replication
    - Monitoring replication stage
    - Replication parameters tuning
  - Built-in partitioning
4. Projects working with PostgreSQL

- PgBouncer connection pooling
- Introduction to external replication with Slony, Bucardo, pgPool
- Using distributed data sources
  - The PL/Proxy language
  - Foreign Data Wrappers
- Traffic monitoring
  - Wireshark
  - pgshark

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## **Target audience and prerequisites**

Basic knowledge of PostgreSQL, Linux administration ability.

## **Certificates**

Course participants receive completion certificates signed by ALX.

## **Locations**

- Warsaw (English) – Jasna 14/16A
- Online (English) – your home, office or wherever you want
- any other location (London, UK, EU) on request

## **Price**

740 EUR

The price includes:

- course materials,
- snacks, coffee, tea and soft drinks,
- course completion certificate,
- one-time consultation with the instructor after course completion.