

PostgreSQL 15 Two-day Introductory Course



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About This Course



Duration: 2 days

Background knowledge required

- fundamentals of databases and SQL
- basic knowledge of Unix OS

Knowledge and skills gained

- general idea of PostgreSQL architecture
- basics of installation, configuring, and managing the server
- physical and logical data layout
- basic administration tasks
- authentication and access control
- overview of backups and replication

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This course is a two-day introduction to PostgreSQL for database administrators and application developers.

Provided Resources



A pre-configured virtual machine

- Xubuntu OS

- PostgreSQL 15 with documentation in English

Course materials

- Student's Guide

- presentations, demos, practical assignments with keys
(in html and pdf formats)

- reference materials: a chart of the main system catalog tables
with psql commands, some Unix commands

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If you are taking the course on your own, take a look at the Student's Guide first. Among other things, it provides download links for the virtual machine and other resources, and explains how to use them. All course materials are available at:

<https://postgrespro.com/community/courses/2dINTRO>

Doing practical assignments is very important for gaining the skills of working with PostgreSQL. Always try completing the tasks on your own, and then look through the provided keys, even if you did not have any questions: you can find there some more theory, which is not covered in presentations and demos.

Course materials (presentations, demos, practical assignments, and their keys) are available in two formats. The html format is convenient for browsing online and allows copying text and code snippets. The pdf format works best for printing.

Additional reference materials will help you quickly find the required information.

Organizational Questions



Each course day includes

- ~8 classroom hours (45 min each)

- a lunch break (1 hour)

For each lecture, we usually provide

- a presentation with demos: ~25–60 min

- practical assignments: ~20–30 min, including a break

Basic tools

- 01. Installation and management; psql

Architecture

- 02. A general overview of PostgreSQL
- 03. Isolation and MVCC
- 04. Vacuum
- 05. Buffer cache and WAL

Data organization

- 06. Logical structure

Data organization (continued)

07. Physical structure

Administration Tasks

08. Monitoring

Access Control

09. Access control overview

Backup and Replication

10. Backup overview

11. Replication overview