

PostgreSQL Server Administration

(TTDB7020)

Category: Software Development & Programming | **Vendor:** Trivera Tech

Duration: 24.00 hours (3 days)

19.5 CPD Hours

Rating: ★ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

PostgreSQL Server Administration® is a three-day hands-on course geared for administrators seeking to sharpen their skills and elevate their database management capabilities. Throughout the course you'll explore a wide range of essential topics, from server architecture and user accounts to monitoring and routine maintenance. Throughout the course, you'll gain invaluable insights and practical techniques that will empower you to optimize, secure, and manage your PostgreSQL environment effectively.

About This Course

PostgreSQL is a powerful, open-source, object-relational database system known for being reliable, secure, and flexible. For administrators, learning PostgreSQL equips you with the skills needed to handle complex and high-performance databases in our data-driven world. Big-name companies like Apple, Cisco, Fujitsu, and IBM trust PostgreSQL for their critical applications, which highlights its significance and broad industry adoption. By getting the hang of PostgreSQL, administrators can boost their career opportunities and play a key role in the success of data-focused businesses.

PostgreSQL Server Administration is a three-day hands-on course geared for administrators seeking to sharpen their skills and elevate their database management capabilities. Throughout the course you'll explore a wide range of essential topics, from server architecture and user accounts to monitoring and routine maintenance. Throughout the course, you'll gain invaluable insights and practical techniques that will empower you to optimize, secure, and manage your PostgreSQL environment effectively.

As you navigate through server configuration, database reporting, backup and restore procedures and more, you'll have the opportunity to apply your newfound knowledge to real-world scenarios. By the end of the course, you'll be equipped with the confidence and skillset required to tackle a wide array of administrative challenges and to effectively manage your PostgreSQL databases.

Who Should Attend

The ideal audience for this course includes database administrators, system administrators, IT managers, and DevOps professionals who are responsible for managing and maintaining PostgreSQL database systems. The course is also suitable for individuals transitioning into these roles or seeking to deepen their understanding of PostgreSQL administration, ensuring they are equipped with the necessary skills and knowledge to excel in their careers.

Prerequisites & Entry Requirements

General Prerequisites:

To ensure a smooth learning experience and maximize the benefits of attending this course, you should have the following prerequisite skills:

- Basic understanding of relational database management systems (RDBMS) and their core concepts, such as tables, indexes, and transactions.
- Familiarity with SQL, including the ability to write and execute simple queries, such as SELECT, INSERT, UPDATE, and DELETE statements.
- Working knowledge of command-line interfaces and experience navigating through directories, executing commands, and editing configuration files.
- General knowledge of computer systems and networking concepts, including the fundamentals of operating systems, file systems, and TCP/IP networking.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Working in a hands-on learning environment led by our expert facilitator you will:

- Gain expertise in managing and maintaining PostgreSQL server architecture, including optimizing performance parameters, memory and disk management, and implementing security best practices.
- Build proficiency in creating, configuring, and securing user accounts by managing roles, privileges, and authentication methods tailored to an administrator's perspective.
- Develop the ability to efficiently monitor database activity, identify performance bottlenecks, and analyze resource usage to ensure optimal database performance.
- Acquire skills in routine database maintenance, such as index and table management, vacuuming and analyzing, and handling bloat, to keep the PostgreSQL environment healthy and efficient.
- Master backup and restore procedures, including implementing physical and logical backups, point-in-time recovery, and developing disaster recovery plans to ensure data integrity and availability.

Detailed Course Outline

Server Architecture

Understanding PostgreSQL layers

Process and memory model

Storage subsystem overview

Transaction and locking

User Accounts

Creating user accounts

Managing roles and privileges

Authentication methods

Securing user access

Server Startup and Shutdown

PostgreSQL startup process

Graceful shutdown techniques

Crash recovery mechanisms

Identifying common issues

Server Configuration

Essential configuration files

Tuning performance parameters

Memory and disk management

Security best practices

Connections and Authorization

Connection types and methods

Managing connection limits

Role-based access control

Implementing SSL/TLS

Database Reporting

Query performance analysis

Identifying slow queries

Using EXPLAIN and ANALYZE

Index usage statistics

Logs

Configuring log output

Analyzing log data

Log rotation and retention

Troubleshooting common errors

Statistics

PostgreSQL statistics collector

Interpreting statistics views

Monitoring performance metrics

Detecting anomalies

Managing Databases

Creating and dropping databases

Managing tablespaces

Schema management

Handling large objects

Routine Database Maintenance

Index and table maintenance

Vacuuming and analyzing

Managing dead rows

Handling bloat

Backup and Restore

Physical and logical backups

Point-in-time recovery

Backup strategies

Disaster recovery planning

Monitoring Database Activity

Active session monitoring

Lock contention analysis

Identifying long-running queries

Resource usage tracking

Monitoring Disk Usage

Disk space allocation

Table and index sizing

Identifying disk bottlenecks

Capacity planning

Information Schema

Navigating information schema

Querying metadata

Understanding system catalogs

Exploring object dependencies

Wrap Up & Additional Resources

Recap of key concepts

PostgreSQL community resources

Advanced topics exploration

Continuous practice and learning opportunities

Additional Course Details

Nexus Humans PostgreSQL Server Administration (TTDB7020) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the PostgreSQL Server Administration (TTDB7020) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for PostgreSQL Server Administration (TTDB7020)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
 - Traditional Instructor-Led Classroom Training (ILT)
 - On-site delivery at your offices anywhere in United Kingdom
 - Private dedicated courses customized for your team
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Q: How many CPD hours does this course provide?

The 3-day PostgreSQL Server Administration (TTDB7020) course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the PostgreSQL Server Administration (TTDB7020) training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for PostgreSQL Server Administration (TTDB7020)?

Yes, we provide corporate training, dedicated training, and closed classes for PostgreSQL Server Administration (TTDB7020). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: PostgreSQL; Databases

Q: Why choose Nexus Human for PostgreSQL Server Administration (TTDB7020)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your PostgreSQL Server Administration (TTDB7020) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

 Email: info@nexushuman.com

 Website: www.nexushuman.com

 Phone: +353 1 XXX XXXX (Ireland) | +44 20 XXXX XXXX (UK)