Databases With Postgresql

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POSTGRESQL FOR PYTHON GUI
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PostgreSQL

NOELLE BRIANA

PostgreSQL 13 Cookbook
Packt Publishing Ltd
Master PostgreSQL 12 features such as advanced indexing, high availability, monitoring, and much more to efficiently manage and maintain your database Key FeaturesGrasp advanced PostgreSQL 12 concepts with real-world examples and sample datasetsExplore query parallelism, data replication, database administration, and moreExtend PostgreSQL functionalities to suit your organization’s needs with minimal effortBook Description Thanks to its reliability, robustness, and high performance, PostgreSQL has become the most advanced open source database on the market. This third edition of Mastering PostgreSQL helps you build dynamic database solutions for enterprise applications using the latest release of PostgreSQL, which enables database analysts to design both physical and technical aspects of system architecture with ease. Starting with an introduction to the newly released features in

PostgreSQL 12, this book will help you build efficient and fault-tolerant PostgreSQL applications. You'll thoroughly examine the advanced features of PostgreSQL, including logical replication, database clusters, performance tuning, monitoring, and user management. You'll also work with the PostgreSQL optimizer, configure PostgreSQL for high speed, and understand how to move from Oracle to PostgreSQL. As you progress through the chapters, you'll cover transactions, locking, indexes, and how to optimize queries for improved performance. Additionally, you'll learn how to manage network security and explore backups and replications while understanding useful PostgreSQL extensions to help you in optimizing the performance of large databases. By the end of this PostgreSQL book, you'll be able to get the most out of your database by implementing advanced administrative tasks effortlessly. What you will learnUnderstand the advanced SQL functions in PostgreSQL 12Use indexing features in PostgreSQL to fine-tune the performance of queriesWork with stored procedures and manage backup and recoveryMaster replication and failover techniques to reduce data lossReplicate PostgreSQL database systems to create backups and to scale your databaseManage and improve the security of your server to protect your dataTroubleshoot

your PostgreSQL instance for solutions to common and not-so-common problemsWho this book is for This book is for PostgreSQL developers and administrators and database professionals who want to implement advanced functionalities and master complex administrative tasks with PostgreSQL 12. Prior exposure to PostgreSQL as well as familiarity with the basics of database administration is expected.

PostgreSQL High Availability Cookbook

Packt Publishing Ltd

Leverage the power of PostgreSQL 10 to build powerful database and data warehousing applications. About This Book Be introduced to the concept of relational databases and PostgreSQL, one of the fastest growing open source databases in the world Learn client-side and server-side programming in PostgreSQL, and how to administer PostgreSQL databases Discover tips on implementing efficient database solutions with PostgreSQL 10 Who This Book Is For If you're interested in learning more about PostgreSQL - one of the most popular relational databases in the world, then this book is for you. Those looking to build solid database or data warehousing applications with PostgreSQL 10 will also find this book a useful resource. No prior knowledge of database programming or administration is required to get started with this book. What You Will Learn Understand the

fundamentals of relational databases, relational algebra, and data modeling Install a PostgreSQL cluster, create a database, and implement your data model Create tables and views, define indexes, and implement triggers, stored procedures, and other schema objects Use the Structured Query Language (SQL) to manipulate data in the database Implement business logic on the server side with triggers and stored procedures using PL/pgSQL Make use of advanced data types supported by PostgreSQL 10: Arrays, hstore, JSONB, and others Develop OLAP database solutions using the most recent features of PostgreSQL 10 Connect your Python applications to a PostgreSQL database and work with the data efficiently Test your database code, find bottlenecks, improve performance, and enhance the reliability of the database applications In Detail PostgreSQL is one of the most popular open source databases in the world, and supports the most advanced features included in SQL standards and beyond. This book will familiarize you with the latest new features released in PostgreSQL 10, and get you up and running with building efficient PostgreSQL database solutions from scratch. We'll start with the concepts of relational databases and their core principles. Then you'll get a thorough introduction to PostgreSQL and the new features introduced in PostgreSQL 10. We'll cover the Data Definition

Language (DDL) with an emphasis on PostgreSQL, and the common DDL commands supported by ANSI SQL. You'll learn to create tables, define integrity constraints, build indexes, and set up views and other schema objects. Moving on, you'll get to know the concepts of Data Manipulation Language (DML) and PostgreSQL server-side programming capabilities using PL/pgSQL. This will give you a very robust background to develop, tune, test, and troubleshoot your database application. We'll also explore the NoSQL capabilities of PostgreSQL and connect to your PostgreSQL database to manipulate data objects. By the end of this book, you'll have a thorough understanding of the basics of PostgreSQL 10 and will have the necessary skills to build efficient database solutions. Style and approach This book is a comprehensive beginner level tutorial on PostgreSQL and introduces the features of the newest version 10, along with explanation of concepts in a very easy to understand manner. Practical tips and examples are provided at every step to ensure you are able to grasp each topic as quickly as possible.

Beginning Databases with PostgreSQL Packt Publishing Ltd

PostgreSQL offers a comprehensive set of replication related features. Unleashing the power of PostgreSQL provides you with countless opportunities and a competitive

advantage over other database systems. This book will guide you through the most important concepts of PostgreSQL replication. It contains all the information you need to design and operate replicated setups. Beginning by giving you an understanding of replication concepts, the PostgreSQL transaction log, and Point-in-time Recovery, we gradually move on to setting up asynchronous and synchronous replication. Next up, you will learn to monitor a PostgreSQL cluster setup, deal with monitoring tools, and then move on to understanding Linux High Availability. Further, we explore widely-used tools such as Slony, SkyTools, Postgres-XC, and walbouncer, and set up PL/Proxy. Finally, you'll get acquainted with the new technology of BDR, which allows bidirectional replication in PostgreSQL.

PostgreSQL-Administration : [die fortschrittlichste Open-Source-Datenbank ; behandelt PostgreSQL 9.2] Packt Publishing Ltd

The open source PostgreSQL database is soaring in popularity, as thousands of database and web professionals discover its powerful features, transaction support, performance, and industrial-strength scalability. In this book, a founding member of the PostgreSQL development team introduces everything you need to know to succeed with PostgreSQL, from basic SQL commands through database administration and optimization.

PostgreSQL assumes no previous database expertise: it establishes a firm foundation of basic concepts and commands before turning to PostgreSQL's advanced, innovative capabilities. Bruce Momjian walks readers step-by-step from their first database queries through the complex queries needed to solve real-world problems. He presents proper query syntax, then explores the value and use of each key SQL commands in working applications. Learn to manipulate and update databases, customize queries, work with SQL aggregates, use joins, combine SELECTs with subqueries, work with triggers and transactions, import and export data, use PostgreSQL query tools, and more. Discover PostgreSQL techniques for server-side programming and multi-user control, and master PostgreSQL's interfaces to C, C++, ODBC, JDBC, Perl, and Tcl/TK. You'll also find detailed coverage of PostgreSQL administration, including backups, troubleshooting, and access configuration.
PostGIS in Action, Third Edition "O'Reilly Media, Inc."
This book is for developers and data architects who have some exposure to databases. It is assumed that you understand the basic concepts of tables and common database objects, including privileges and security.
PostgreSQL Configuration "O'Reilly Media, Inc."
Thinking of migrating to PostgreSQL? This clear,

fast-paced introduction helps you understand and use this open source database system. Not only will you learn about the enterprise class features in versions 9.5 to 10, you'll also discover that PostgeSQL is more than a database system—it's an impressive application platform as well. With examples throughout, this book shows you how to achieve tasks that are difficult or impossible in other databases. This third edition covers new features, such as ANSI-SQL constructs found only in proprietary databases until now: foreign data wrapper (FDW) enhancements; new full text functions and operator syntax introduced in version 9.6; XML constructs new in version 10; query parallelization features introduced in 9.6 and enhanced in 10; built-in logical replication introduced in Version 10.e. If you're a current PostgreSQL user, you'll pick up gems you may have missed before. Learn basic administration tasks such as role management, database creation, backup, and restore Apply the psql command-line utility and the pgAdmin graphical administration tool Explore PostgreSQL tables, constraints, and indexes Learn powerful SQL constructs not generally found in other databases Use several different languages to write database functions Tune your queries to run as fast as your hardware will allow Query external and variegated data sources with foreign data wrappers Learn how to

use built-in replication to replicate data

PostgreSQL Replication
Packt Publishing Ltd
If you are a database administrator who needs to get to grips with PostgreSQL quickly and efficiently, then this book is for you. This book will also be highly beneficial if you are a project leader or a developer who is interested in knowing more about database systems or bottleneck detection, as it will enable you to work more closely and cooperatively with your administrators.

Mastering PostgreSQL 10
Packt Publishing Ltd
The easiest way to set up a PostgreSQL database server on Windows Get up-and-running on PostgreSQL quickly using this hands-on guide. Filled with real-world examples, PostgreSQL 8 for Windows offers you practical, step-by-step details on installing, configuring, and using PostgreSQL 8--the full-featured, open-source database management system--on Windows platforms. You'll learn to administer, secure, and tune your database and use SQL. You'll also discover how to interface Microsoft Access, Microsoft .NET, Visual C++, and Java with the PostgreSQL database. Install and configure PostgreSQL 8 on Windows Customize your system using the configuration files Work with the utilities Administer your database from the pgAdmin III graphical interface Use the psql command line program to manually execute SQL commands Take advantage of built-in functions or create your own stored procedures

and triggers Implement tested security measures Maintain optimal database performance Access a PostgreSQL database from a Microsoft Access application and migrate Access databases to PostgreSQL Create .NET, Visual C++, and Java applications that interface with your PostgreSQL server

PostgreSQL Developer's Handbook

Simon and Schuster

This book is a Python/PostgreSQL version of the Python/MySQL book which was written by the author. What underlies the writing of this book is the growing popularity of the PostgreSQL database server lately and more and more programmers migrating from MySQL to PostgreSQL. In this book, you will learn to build a school database project, step by step. A number of widgets from PyQt will be used for the user interface. In the first and second chapter, you will get introduction of postgresql. And then, you will learn querying data from the postgresql using Python including establishing a database connection, creating a statement object, executing the query, processing the resultset object, querying data using a statement that returns multiple rows, querying data using a statement that has parameters, inserting data into a table using Python, updating data in postgresql database using Python, calling postgresql stored function using Python, deleting data from a postgresql table using Python, and

postgresql Python transaction. In the fourth chapter, you will study: Creating the initial three table in the School database project: Teacher table, Class table, and Subject table; Creating database configuration files; Creating a Python GUI for viewing and navigating the contents of each table. Creating a Python GUI for inserting and editing tables; and Creating a Python GUI to merge and query the three tables. In last chapter, you will learn: Creating the main form to connect all forms; Creating a project that will add three more tables to the school database: the Student table, the Parent table, and the Tuition table; Creating a Python GUI to view and navigate the contents of each table; Creating a Python GUI for editing, inserting, and deleting records in each table; Create a Python GUI to merge and query the three tables and all six tables.

Mastering PostgreSQL 12
"O'Reilly Media, Inc."
Beginning Databases with PostgreSQLApress

PostgreSQL 14 Administration Cookbook
Addison-Wesley Professional
Get up to speed with core PostgreSQL tasks such as database administration, application development, database performance monitoring, and database testing Key FeaturesBuild real-world enterprise database management systems using Postgres 12 featuresExplore the development, administrative and security aspects of PostgreSQL 12Implement best practices from

industry experts to build powerful database applicationsBook Description PostgreSQL is an open-source object-relational database management system (DBMS) that provides enterprise-level services, including high performance and scalability. This book is a collection of unique projects providing you with a wealth of information relating to administering, monitoring, and testing PostgreSQL. The focus of each project is on both the development and the administrative aspects of PostgreSQL. Starting by exploring development aspects such as database design and its implementation, you'll then cover PostgreSQL administration by understanding PostgreSQL architecture, PostgreSQL performance, and high-availability clusters. Various PostgreSQL projects are explained through current technologies such as DevOps and cloud platforms using programming languages like Python and Node.js. Later, you'll get to grips with the well-known database API tool, PostgREST, before learning how to use popular PostgreSQL database testing frameworks. The book is also packed with essential tips and tricks and common patterns for working seamlessly in a production environment. All the chapters will be explained with the help of a real-world case study on a small banking application for managing ATM locations in a city. By

the end of this DBMS book, you'll be proficient in building reliable database solutions as per your organization's needs. What you will learnSet up high availability PostgreSQL database clusters in the same containment, a cross-containment, and on the cloudMonitor the performance of a PostgreSQL databaseCreate automated unit tests and implement test-driven development for a PostgreSQL databaseDevelop PostgreSQL apps on cloud platforms using DevOps with Python and Node.jsWrite robust APIs for PostgreSQL databases using Python programming, Node.js, and PostgRESTCreate a geospatial database using PostGIS and PostgreSQLImplement automatic configuration by Ansible and Terraform for PostgresWho this book is for This PostgreSQL book is for database developers, database administrators, data architects, or anyone who wants to build end-to-end database projects using Postgres. This book will also appeal to software engineers, IT technicians, computer science researchers, and university students who are interested in database development and administration. Some familiarity with PostgreSQL and Linux is required to grasp the concepts covered in the book effectively.

Beginning Databases with PostgreSQL Packt Publishing Ltd

This book is for moderate to advanced PostgreSQL

database professionals who wish to extend PostgreSQL, utilizing the most updated features of PostgreSQL 9.4. For a better understanding of this book, familiarity with writing SQL, a basic idea of query tuning, and some coding experience in your preferred language is expected.

Mastering PostgreSQL 13 SPARTA PUBLISHING
Filled with practical, step-by-step instructions and clear explanations for the most important and useful tasks. This hands-on guide provides a quick and easy way to back up and restore your database using PostgreSQL.Written for database administrators who want to create backups of their critical enterprise data and efficiently restore it using PostgreSQL.

PostgreSQL 15 Cookbook Sams Publishing
This new edition will help you learn PostgreSQL from scratch with the latest version, providing a complete focused view on aspects like configuration, high performance, partitioning, backup, server-side programming and replication. Purchase of the print or Kindle book includes a free eBook in PDF format. Key Features Learn the fundamentals of PostgreSQL 16, including SQL statements, replication, and security Enhance your learning journey with the provided Docker images for practical hands-on exercises and tests at the end of each chapter Get new and improved examples, use-cases, and scenarios specifically for concepts like partitioning, replication, back-up and

restore, cluster configuration, monitoring and others Book DescriptionThe latest edition of this PostgreSQL book will help you to start using PostgreSQL from absolute scratch, helping you to quickly understand the internal workings of the database. With a structured approach and practical examples, go on a journey that covers the basics, from SQL statements and how to run server-side programs, to configuring, managing, securing, and optimizing database performance. This new edition will not only help you get to grips with all the recent changes within the PostgreSQL ecosystem but will also dig deeper into concepts like partitioning and replication with a fresh set of examples. The book is also equipped with Docker images for each chapter which makes the learning experience faster and easier. Starting with the absolute basics of databases, the book sails through to advanced concepts like window functions, logging, auditing, extending the database, configuration, partitioning, and replication. It will also help you seamlessly migrate your existing database system to PostgreSQL and contains a dedicated chapter on disaster recovery. Each chapter ends with practice questions to test your learning at regular intervals. By the end of this book, you will be able to install, configure, manage, and develop applications against a PostgreSQL database.What you will

learn Gain a deeper understanding of PostgreSQL internals like transactions, MVCC, security and replication Enhance data management with PostgreSQL’s latest partitioning features Choose the right replication strategy for your database See concrete examples of how to migrate data from another database, perform backups and restores, monitor your PostgreSQL installation and more Ensure security and compliance with schemas and user privileges Create customized database functions and extensions Get to grips with server-side programming, window functions, and triggers Who this book is forLearning PostgresSQL 16 book is for anyone interested in learning about the PostgreSQL database from scratch. Anyone looking to build robust data warehousing applications and scale the database for high-availability and performance using the latest features of PostgreSQL will also find this book useful. Although prior knowledge of PostgreSQL is not required, familiarity with databases is expected.

PostgreSQL High Performance Cookbook

Packt Publishing Ltd

Get to know effective ways to improve PostgreSQL's performance and master query optimization, and database monitoring. About This Book Perform essential database tasks such as benchmarking the database and optimizing the server's memory

usage Learn ways to improve query performance and optimize the PostgreSQL server Explore a wide range of high availability and replication mechanisms to build robust, highly available, scalable, and fault-tolerant PostgreSQL databases Who This Book Is For If you are a developer or administrator with limited PostgreSQL knowledge and want to develop your skills with this great open source database, then this book is ideal for you. Learning how to enhance the database performance is always an exciting topic to everyone, and this book will show you enough ways to enhance the database performance. What You Will Learn Build replication strategies for homogeneous and heterogeneous databases Test and build a powerful machine with multiple bench marking techniques Get to know a few SQL injection techniques Find out how to manage the replication using multiple tools Benchmark the database server using multiple strategies Work with the query processing algorithms and their internal behaviors Build a proper plan to upgrade or migrate to PostgreSQL from other databases See the essential database load balancing techniques and the various partitioning approaches PostgreSQL provides Learn memory optimization techniques and database server configurations In Detail PostgreSQL is one of the most powerful and easy to use database management systems. It

has strong support from the community and is being actively developed with a new release every year. PostgreSQL supports the most advanced features included in SQL standards. It also provides NoSQL capabilities and very rich data types and extensions. All of this makes PostgreSQL a very attractive solution in software systems. If you run a database, you want it to perform well and you want to be able to secure it. As the world's most advanced open source database, PostgreSQL has unique built-in ways to achieve these goals. This book will show you a multitude of ways to enhance your database's performance and give you insights into measuring and optimizing a PostgreSQL database to achieve better performance. This book is your one-stop guide to elevate your PostgreSQL knowledge to the next level. First, you'll get familiarized with essential developer/administrator concepts such as load balancing, connection pooling, and distributing connections to multiple nodes. Next, you will explore memory optimization techniques before exploring the security controls offered by PostgreSQL. Then, you will move on to the essential database/server monitoring and replication strategies with PostgreSQL. Finally, you will learn about query processing algorithms. Style and approach This comprehensive guide is packed with practical administration tasks. Each topic is explained using examples and a step-by-

step approach.
Learning PostgreSQL 10
GitforGits
PostGIS in Action, Third Edition shows you how to solve real-world geodata problems. You'll go beyond basic mapping, and explore custom functions for your applications. Summary In PostGIS in Action, Third Edition you will learn: An introduction to spatial databases Geometry, geography, raster, and topology spatial types, functions, and queries Applying PostGIS to real-world problems Extending PostGIS to web and desktop applications Querying data from external sources using PostgreSQL Foreign Data Wrappers Optimizing queries for maximum speed Simplifying geometries for greater efficiency PostGIS in Action, Third Edition teaches readers of all levels to write spatial queries for PostgreSQL. You'll start by exploring vector-, raster-, and topology-based GIS before quickly progressing to analyzing, viewing, and mapping data. This fully updated third edition covers key changes in PostGIS 3.1 and PostgreSQL 13, including parallelization support, partitioned tables, and new JSON functions that help in creating web mapping applications. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology PostGIS is a spatial database extender for PostgreSQL. It offers the features and firepower you need to take on nearly any

geodata task. PostGIS lets you create location-aware queries with a few lines of SQL code, then build the backend for mapping, raster analysis, or routing application with minimal effort. About the book PostGIS in Action, Third Edition shows you how to solve real-world geodata problems. You'll go beyond basic mapping, and explore custom functions for your applications. Inside this fully updated edition, you'll find coverage of new PostGIS features such as PostGIS Window functions, parallelization of queries, and outputting data for applications using JSON and Vector Tile functions. What's inside Fully revised for PostGIS version 3.1 and PostgreSQL 13 Optimize queries for maximum speed Simplify geometries for greater efficiency Extend PostGIS to web and desktop applications About the reader For readers familiar with relational databases and basic SQL. No prior geodata or GIS experience required. About the author Regina Obe and Leo Hsu are database consultants and authors. Regina is a member of the PostGIS core development team and the Project Steering Committee. Table of Contents PART 1 INTRODUCTION TO POSTGIS 1 What is a spatial database? 2 Spatial data types 3 Spatial reference systems 4 Working with real data 5 Using PostGIS on the desktop 6 Geometry and geography functions 7 Raster functions 8 Spatial relationships PART 2 PUTTING POSTGIS TO WORK 9 Proximity

analysis 10 PostGIS TIGER geocoder 11 Geometry and geography processing 12 Raster processing 13 Building and using topologies 14 Organizing spatial data 15 Query performance tuning PART 3 USING POSTGIS WITH OTHER TOOLS 16 Extending PostGIS with pgRouting and procedural languages 17 Using PostGIS in web applications

Learning PostgreSQL 10 - Second Edition McGraw Hill Professional

In this book, you will learn how to build from scratch a PostgreSQL database management system using Java. In designing a GUI and as an IDE, you will make use of the NetBeans tool. Gradually and step by step, you will be taught how to utilize PostgreSQL in Java. In the first chapter, you will learn: How to install NetBeans, JDK 11, and the PostgreSQL connector; How to integrate external libraries into projects; How the basic PostgreSQL commands are used; How to query statements to create databases, create tables, fill tables, and manipulate table contents is done.In the first chapter, you will learn: How to install NetBeans, JDK 11, and the PostgreSQL connector; How to integrate external libraries into projects; How the basic PostgreSQL commands are used; How to query statements to create databases, create tables, fill tables, and manipulate table contents is done. In the second chapter, you will learn querying data from the postgresql using jdbc including establishing a database connection,

creating a statement object, executing the query, processing the resultset object, querying data using a statement that returns multiple rows, querying data using a statement that has parameters, inserting data into a table using jdbc, updating data in postgresql database using jdbc, calling postgresql stored function using jdbc, deleting data from a postgresql table using jdbc, and postgresql jdbc transaction. In the third chapter, you will study: Creating the initial three table projects in the school database: Teacher table, TClass table, and Subject table; Creating database configuration files; Creating a Java GUI for viewing and navigating the contents of each table; Creating a Java GUI for inserting and editing tables; and Creating a Java GUI to join and query the three tables. In the fourth chapter, you will learn: Creating the main form to connect all forms; Creating a project will add three more tables to the school database: the Student table, the Parent table, and Tuition table; Creating a Java GUI to view and navigate the contents of each table; Creating a Java GUI for editing, inserting, and deleting records in each table; Creating a Java GUI to join and query the three tables and all six. In the last chapter, you will study how to query the six tables. Finally, this book is hopefully useful and can improve database programming skills for every Java/PostgreSQL programmer.

POSTGRESQL FOR PYTHON GUI O'Reilly

Germany
Master over 100 recipes to design and implement a highly available server with the advanced features of PostgreSQL About This Book Create a PostgreSQL cluster that stays online even when disaster strikes Avoid costly downtime and data loss that can ruin your business Updated to include the newest features introduced in PostgreSQL 9.6 with hands-on industry-driven recipes Who This Book Is For If you are a PostgreSQL DBA working on Linux systems who want a database that never gives up, this book is for you. If you've ever experienced a database outage, restored from a backup, spent hours trying to repair a malfunctioning cluster, or simply want to guarantee system stability, this book is definitely for you. What You Will Learn Protect your data with PostgreSQL replication and management tools such as Slony, Bucardo, pglogical, and WAL-E Hardware planning to help your database run efficiently Prepare for catastrophes and prevent them before they happen Reduce database resource contention with connection pooling using pgpool and PgBouncer Automate monitoring and alerts to visualize cluster activity using Nagios and collected Construct a robust software stack that can detect and fix outages Learn simple PostgreSQL High Availability with Patroni, or dive into the full power of Pacemaker. In Detail Databases are nothing without the data they

store. In the event of a failure - catastrophic or otherwise - immediate recovery is essential. By carefully combining multiple servers, it's even possible to hide the fact a failure occurred at all. From hardware selection to software stacks and horizontal scalability, this book will help you build a versatile PostgreSQL cluster that will survive crashes, resist data corruption, and grow smoothly with customer demand. It all begins with hardware selection for the skeleton of an efficient PostgreSQL database cluster. Then it's on to preventing downtime as well as troubleshooting some real life problems that administrators commonly face. Next, we add database monitoring to the stack, using collectd, Nagios, and Graphite. And no stack is complete without replication using multiple internal and external tools, including the newly released pglogical extension. Pacemaker or Raft consensus tools are the final piece to grant the cluster the ability to heal itself. We even round off by tackling the complex problem of data scalability. This book exploits many new features introduced in PostgreSQL 9.6 to make the database more efficient and adaptive, and most importantly, keep it running. Style and approach This book contains practical recipes that will help the reader solve real world problems related to high availability in PostgreSQL. Every recipe is explained in detail, with relevant explanations, tips and

tricks provided for quicker and easier understanding.
Learn PostgreSQL - Second Edition Packt Publishing Ltd
"PostgreSQL" leads users through the internals of an open-source database. Throughout the book are explanations of data structures and algorithms, each backed by a concrete example from the actual source code. Each section contains information about performance implications, debugging techniques, and pointers to more information (on the Web and in book form).
Learning PostgreSQL Apress
Get to grips with building reliable, scalable, and maintainable database solutions for enterprises and production databases Key FeaturesImplement PostgreSQL 13 features to perform end-to-end modern database managementDesign, manage, and build enterprise database solutions using a unique recipe-based approachSolve common and not-so-common challenges faced while working to achieve optimal database performanceBook Description PostgreSQL has become the most advanced open source database on the market. This book follows a step-by-step approach, guiding you effectively in deploying PostgreSQL in production environments. The book starts with an introduction to PostgreSQL and its architecture. You'll cover common and not-so-common challenges faced while designing and managing the database.

Next, the book focuses on backup and recovery strategies to ensure your database is steady and achieves optimal performance. Throughout the book, you'll address key challenges such as maintaining reliability, data integrity, a fault-tolerant environment, a robust feature set, extensibility, consistency, and authentication. Moving ahead, you'll learn how to manage a PostgreSQL cluster and explore replication features for high availability. Later chapters will assist you in building a secure PostgreSQL server, along with covering recipes for encrypting data in motion and data at rest. Finally, you'll not only discover how to tune your database for optimal performance but also understand ways to monitor and manage maintenance activities, before learning how to perform PostgreSQL upgrades during downtime. By the end of this book, you'll be well-versed with the essential PostgreSQL 13 features to build enterprise relational databases. What you will learnUnderstand logical and physical backups in PostgresDemonstrate the different types of replication methods possible with PostgreSQL todaySet up a high availability cluster that provides seamless automatic failover for applicationsSecure a PostgreSQL encryption through authentication, authorization, and auditingAnalyze the live and historic activity of a PostgreSQL serverUnderstand how to

monitor critical services in Postgres 13Manage maintenance activities and performance tuning of a PostgreSQL clusterWho this book is for This PostgreSQL book is for database architects, database developers and administrators, or anyone who wants to become well-versed with PostgreSQL 13 features to plan, manage, and design efficient database solutions. Prior experience with the PostgreSQL database and SQL language is expected.

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