

Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

This book will get you up and running with building efficient relational database solutions right from scratch with the newest features of PostgreSQL 11. You will learn the end-to-end working of relational databases and how to work with database structures. You will also be able to write essential SQL statements, perform data manipulation and ...

PostgreSQL: Up and Running A Practical Guide to the Advanced Open Source Database"O'Reilly Media, Inc." Obtain all the skills you need to configure and manage a PostgreSQL database. In this book you will begin by installing and configuring PostgreSQL on a server by focusing on system-level parameter settings before installation. You will also look at key post-installation steps to avoid issues in the future. The basic configuration of PostgreSQL is tuned for compatibility rather than performance. Keeping this in mind, you will fine-tune your PostgreSQL parameters based on your environment and application behavior. You will then get tips to improve database monitoring and maintenance followed by database security for handling sensitive data in PostgreSQL. Every system containing valuable data needs to be backed-up regularly. PostgreSQL follows a simple back-up procedure and provides fundamental approaches to back up your data. You will go through these approaches and choose the right one based on

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

your environment. Running your application with limited resources can be tricky. To achieve this you will implement a pooling mechanism for your PostgreSQL instances to connect to other databases. Finally, you will take a look at some basic errors faced while working with PostgreSQL and learn to resolve them in the quickest manner. What You Will Learn Configure PostgreSQL for performance Monitor and maintain PostgreSQL instances Implement a backup strategy for your data Resolve errors faced while using PostgreSQL Who This Book Is For Readers with basic knowledge of PostgreSQL who wish to implement key solutions based on their environment.

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. This updated and expanded second edition of the PostgreSQL: Up and Running: A Practical Introduction to the Advanced Open Source provides a user-friendly introduction to the subject Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening overview is a required reading for all those interested in the subject . We hope you find this book useful in shaping your future career & Business.

Thinking of migrating to PostgreSQL? This clear, fast-paced introduction helps you understand and use this

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

open source database system. Not only will you learn about the enterprise class features in versions 9.2, 9.3, and 9.4, you'll also discover that PostgreSQL is more than a database system—it's also an impressive application platform. With examples throughout, this book shows you how to achieve tasks that are difficult or impossible in other databases. This second edition covers LATERAL queries, augmented JSON support, materialized views, and other key topics. 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 use built-in replication filters to replicate data

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

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

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.

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.

Master PostgreSQL 12 features such as advanced indexing, high availability, monitoring, and much more to efficiently manage and maintain your database Key Features Grasp advanced PostgreSQL 12 concepts with real-world examples and sample datasets Explore query parallelism, data replication, database administration, and more Extend PostgreSQL functionalities to suit your

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

organization's needs with minimal effort Book
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 learn Understand the advanced SQL functions in PostgreSQL 12 Use indexing features in PostgreSQL to fine-tune the performance of queries Work with stored procedures and manage backup and

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

recovery Master replication and failover techniques to reduce data loss Replicate PostgreSQL database systems to create backups and to scale your database Manage and improve the security of your server to protect your data Troubleshoot your PostgreSQL instance for solutions to common and not-so-common problems Who 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.

Starting an application is simple enough, whether you use migrations, a model-synchronizer or good old-fashioned hand-rolled SQL. A year from now, however, when your app has grown and you're trying to measure what's happened... the story can quickly change when data is overwhelming you and you need to make sense of what's been accumulating. Learning how PostgreSQL works is just one aspect of working with data.

PostgreSQL is there to enable, enhance and extend what you do as a developer/DBA. And just like any tool in your toolbox, it can help you create crap, slice off some fingers, or help you be the superstar that you are. That's the perspective of A Curious Moon - data is the truth, data is your friend, data is your business. The tools you use (namely PostgreSQL) are simply there to safeguard your treasure and help you understand what it's telling you. But what does it mean to be "data-minded"? How do you even get started? These are good

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

questions and ones I struggled with when outlining this book. I quickly realized that the only way you could truly understand the power and necessity of solid database design was to live the life of a new DBA... thrown into the fire like we all were at some point...Meet Dee Yan, our fictional intern at Red:4 Aerospace. She's just been handed the keys to a massive set of data, straight from Saturn, and she has to load it up, evaluate it and then analyze it for a critical project. She knows that PostgreSQL exists... but that's about it. Much more than a tutorial, this book has a narrative element to it a bit like *The Martian*, where you get to know Dee and the problems she faces as a new developer/DBA... and how she solves them. The truth is in the data...

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 PostgreSQL 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

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

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

Practical SQL is an approachable and fast-paced guide to SQL (Structured Query Language), the standard programming language for defining, organizing, and exploring data in relational databases. The book focuses on using SQL to find the story your data tells, with the popular open-source database PostgreSQL and the pgAdmin interface as its primary tools. You'll first cover the fundamentals of databases and the SQL language, then build skills by analyzing data from the U.S. Census and other federal and state government agencies. With exercises and real-world examples in each chapter, this book will teach even those who have never programmed before all the tools necessary to build powerful databases and access information quickly and efficiently. You'll learn how to:

- Create databases and related tables using your own data
- Define the right data types for your information
- Aggregate, sort, and filter data to find patterns
- Use basic math and advanced statistical functions
- Identify errors in data and clean them up
- Import and export data using delimited text files
- Write

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

queries for geographic information systems (GIS) -

Create advanced queries and automate tasks Learning SQL doesn't have to be dry and complicated. Practical SQL delivers clear examples with an easy-to-follow approach to teach you the tools you need to build and manage your own databases. This book uses PostgreSQL, but the SQL syntax is applicable to many database applications, including Microsoft SQL Server and MySQL.

"PostGIS in Action" is the first book devoted entirely to PostGIS. It will help both new and experienced users write spatial queries to solve real-world problems. It also discusses the new features available in PostgreSQL 8.4 and provides tutorials.

Completely updated for Django 3.1 Django for Professionals takes your web development skills to the next level, teaching you how to build production-ready websites with Python and Django. Once you have learned the basics of Django there is a massive gap between building simple "toy apps" and what it takes to build a "production-ready" web application suitable for deployment to thousands or even millions of users. In the book you'll learn how to:

- * Build a Bookstore website from scratch
- * Use Docker and PostgreSQL locally to mimic production settings
- * Implement advanced user registration with email
- * Write comprehensive tests
- * Adopt advanced security and performance improvements
- * Add search and file/image uploads

If you want to take advantage of all that Django has to offer, Django for Professionals is a comprehensive best practices guide to building and deploying modern

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database websites.

PostgreSQL is a rock-solid, scalable, and safe, enterprise-level relational database. With a broad range of features and stability it is ever increasing in popularity. The book shows you how to take advantages of PostgreSQL 11 features for Server-Side-Programming. Server-Side-Programming enables strong data encapsulation and coherence.

Annotation If youre thinking about migrating to the PostgreSQL open source database system, this guide provides a concise overview to help you quickly understand and use PostgreSQLs unique features. Not only will you learn about the enterprise class features in the 9.2 release, youll also discover that PostgreSQL is more than just a database systemits also an impressive application platform. With numerous examples throughout this book, youll learn how to achieve tasks that are difficult or impossible in other databases. If youre an existing PostgreSQL user, youll pick up gems you may have missed along the way. Learn basic administration tasks, such as role management, database creation, backup, and restoreApply the psql command-line utility and the pgAdmin graphical administration toolExplore PostgreSQL tables, constraints, and indexesLearn powerful SQL constructs not generally found in other databasesUse several different languages to write database functionsTune your queries to run as fast as your hardware will allowQuery external and variegated data sources with Foreign Data WrappersLearn how to replicate data, using built-in replication features.

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

Updated to include the new features introduced in PostgreSQL 13, this book shows you how to build better PostgreSQL applications and administer your PostgreSQL database efficiently. You'll master the advanced features of PostgreSQL and develop the skills you need to build secure and highly available database solutions.

Arguably the most capable of all the open source databases, PostgreSQL is an object-relational database management system first developed in 1977 by the University of California at Berkeley. In spite of its long history, this robust database suffers from a lack of easy-to-use documentation. Practical PostgreSQL fills that void with a fast-paced guide to installation, configuration, and usage. This comprehensive new volume shows you how to compile PostgreSQL from source, create a database, and configure PostgreSQL to accept client-server connections. It also covers the many advanced features, such as transactions, versioning, replication, and referential integrity that enable developers and DBAs to use PostgreSQL for serious business applications. The thorough introduction to PostgreSQL's PL/pgSQL programming language explains how you can use this very useful but under-documented feature to develop stored procedures and triggers. The book includes a complete command reference, and database administrators will appreciate the chapters on user management, database maintenance, and backup & recovery. With Practical PostgreSQL, you will discover quickly why this open source database is such a great open source alternative to proprietary products from

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

Oracle, IBM, and Microsoft.

"A practical guide to the Advanced Open Source Database"--Cover.

Mastering PostgreSQL in Application Development is intended for developers working on applications that use a database server. The book addresses specifically the PostgreSQL RDBMS: it actually is the world's most advanced Open Source database as said in its slogan on the official website. By the end of this book, you will know why, and agree!

Build, deploy, and manage applications in the cloud with Heroku, one of the first PaaS platforms to offer sophisticated hosting and development services. With this book, you'll learn how to use Heroku's Cedar runtime stack, a polyglot platform with native support for several languages and frameworks, including Ruby (Rails), Java (Spring), Node.js, and Python (Django). Get started with the Heroku Command Line Interface and learn day-to-day best practices for hosting your applications on the platform. You'll learn everything from basic concepts to advanced topics such as Buildpacks so you can start running in the cloud right away. Use pre-baked code examples and instances in Java and Ruby Learn about Heroku's simple application deployment and strong erosion resistance Understand how applications should be built for modern day cloud hosting, using the 12-factor principle

Develop programmatic functions to create powerful database applications About This Book Write complex SQL queries and design a robust database design that fits your application's need Improve database

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

performance by indexing, partitioning tables, and query optimizing A comprehensive guide covering the advanced PostgreSQL concepts without any hassle Who This Book Is For If you are a PostgreSQL developer with a basic knowledge of PostgreSQL development and you're want deeper knowledge to develop applications, then this book is for you. As this book does not cover basic installation and configurations, you should have PostgreSQL installed on your machine as a prerequisite. What You Will Learn Write more complex queries with advanced SQL queries Design a database that works with the application exactly the way you want Make the database work in extreme conditions by tuning, optimizing, partitioning, and indexing Develop applications in other programming languages such as Java and PHP Use extensions to get extra benefits in terms of functionality and performance Build an application that does not get locked by data manipulation Explore in-built db functions and data type conversions In Detail PostgreSQL is the most advanced open source database in the world. It is easy to install, configure, and maintain by following the documentation; however, it's difficult to develop applications using programming languages and design databases accordingly. This book is what you need to get the most out of PostgreSQL You will begin with advanced SQL topics such as views, materialized views, and cursors, and learn about performing data type conversions. You will then perform trigger operations and use trigger functions in PostgreSQL. Next we walk through data modeling, normalization concepts, and the effect of transactions

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

and locking on the database. The next half of the book covers the types of indexes, constraints, and the concepts of table partitioning, as well as the different mechanisms and approaches available to write efficient queries or code. Later, we explore PostgreSQL Extensions and Large Object Support in PostgreSQL. Finally, you will perform database operations in PostgreSQL using PHP and Java. By the end of this book, you will have mastered all the aspects of PostgreSQL development. You will be able to build efficient enterprise-grade applications with PostgreSQL by making use of these concepts.

Style and approach
Every chapter follows a step by step approach that first explains the concept, then shows you how to execute it practically so that you can implement them in your application.

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 PostgreSQL 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

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

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

Summary PostGIS in Action, Second Edition teaches readers of all levels to write spatial queries that solve real-world problems. It first gives you a background in vector-, raster-, and topology-based GIS and then quickly moves into analyzing, viewing, and mapping data. This second edition covers PostGIS 2.0 and 2.1 series, PostgreSQL 9.1, 9.2, and 9.3 features, and shows you how to integrate with other GIS tools.

Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

About the Book Processing data tied to location and topology requires specialized know-how. PostGIS is a free spatial database extender for PostgreSQL, every bit as good as proprietary software. With it, you can easily create location-aware queries in just a few lines of SQL code and build the back end for a mapping, raster analysis, or routing application with minimal effort.

PostGIS in Action, Second Edition teaches you to solve

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

real-world geodata problems. It first gives you a background in vector-, raster-, and topology-based GIS and then quickly moves into analyzing, viewing, and mapping data. You'll learn how to optimize queries for maximum speed, simplify geometries for greater efficiency, and create custom functions for your own applications. You'll also learn how to apply your existing GIS knowledge to PostGIS and integrate with other GIS tools. Familiarity with relational database and GIS concepts is helpful but not required.

What's Inside 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 Updated for PostGIS 2.x and PostgreSQL 9.x About the Authors 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 What is a spatial database? Spatial data types Spatial reference system considerations Working with real data Using PostGIS on the desktop Geometry and geography functions Raster functions PostGIS TIGER geocoder Geometry relationships PART 2 PUTTING POSTGIS TO WORK Proximity analysis Geometry and geography processing Raster processing Building and using topologies Organizing spatial data Query performance tuning PART 3 USING POSTGIS WITH OTHER TOOLS Extending PostGIS with pgRouting and procedural languages Using PostGIS in web applications A comprehensive guide to understanding key techniques

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

for architecture and hardware planning, monitoring, replication, backups, and decoupling Key Features Newly updated edition, covering the latest PostgreSQL 12 features with hands-on industry-driven recipes Create a PostgreSQL cluster that stays online even when disaster strikes Learn how to avoid costly downtime and data loss that can ruin your business Book Description Databases are nothing without the data they store. In the event of an outage or technical catastrophe, immediate recovery is essential. This updated edition ensures that you will learn the important concepts related to node architecture design, as well as techniques such as using repmgr for failover automation. From cluster layout and hardware selection to software stacks and horizontal scalability, this PostgreSQL cookbook will help you build a PostgreSQL cluster that will survive crashes, resist data corruption, and grow smoothly with customer demand. You'll start by understanding how to plan a PostgreSQL database architecture that is resistant to outages and scalable, as it is the scaffolding on which everything rests. With the bedrock established, you'll cover the topics that PostgreSQL database administrators need to know to manage a highly available cluster. This includes configuration, troubleshooting, monitoring and alerting, backups through proxies, failover automation, and other considerations that are essential for a healthy PostgreSQL cluster. Later, you'll learn to use multi-master replication to maximize server availability. Later chapters will guide you through managing major version upgrades without downtime. By the end of this book,

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

you'll have learned how to build an efficient and adaptive PostgreSQL 12 database cluster. What you will learn Understand how to protect data with PostgreSQL replication tools Focus on hardware planning to ensure that your database runs efficiently Reduce database resource contention with connection pooling Monitor and visualize cluster activity with Nagios and the TIG (Telegraf, InfluxDB, Grafana) stack Construct a robust software stack that can detect and avert outages Use multi-master to achieve an enduring PostgreSQL cluster Who this book is for This book is for Postgres administrators and developers who are looking to build and maintain a highly reliable PostgreSQL cluster. Although knowledge of the new features of PostgreSQL 12 is not required, a basic understanding of PostgreSQL administration is expected.

Languages may come and go, but the relational database endures. Learn how to use Ecto, the premier database library for Elixir, to connect your Elixir and Phoenix apps to databases. Get a firm handle on Ecto fundamentals with a module-by-module tour of the critical parts of Ecto. Then move on to more advanced topics and advice on best practices with a series of recipes that provide clear, step-by-step instructions on scenarios commonly encountered by app developers. Co-authored by the creator of Ecto, this title provides all the essentials you need to use Ecto effectively. Elixir and Phoenix are taking the application development world by storm, and Ecto, the database library that ships with Phoenix, is going right along with them. There are plenty of examples that show you the basics, but to use Ecto to

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

its full potential, you need to learn the library from the ground up. This definitive guide starts with a tour of the core features of Ecto - repos, queries, schemas, changesets, transactions - gradually building your knowledge with tasks of ever-increasing complexity. Along the way, you'll be learning by doing - a sample application handles all the boilerplate so you can focus on getting Ecto into your fingers. Build on that core knowledge with a series of recipes featuring more advanced topics. Change your pooling strategy to maximize your database's efficiency. Use nested associations to handle complex table relationships. Add streams to handle large result sets with ease. Based on questions from Ecto users, these recipes cover the most common situations developers run into. Whether you're new to Ecto, or already have an app in production, this title will give you a deeper understanding of how Ecto works, and help make your database code cleaner and more efficient. What You Need: To follow along with the book, you should have Erlang/OTP 19+ and Elixir 1.4+ installed. The book will guide you through setting up a sample application that integrates Ecto.

A practical guide to administer, monitor and replicate your PostgreSQL 10 database Key Features Get to grips with the capabilities of PostgreSQL 10 to administer your database more efficiently Monitor, tune, secure and protect your database for optimal performance A step-by-step, recipe-based guide to help you tackle any problem in PostgreSQL 10 administration with ease Book Description PostgreSQL is a powerful, open source database management system with an enviable

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

reputation for high performance and stability. With many new features in its arsenal, PostgreSQL 10 allows users to scale up their PostgreSQL infrastructure. This book takes a step-by-step, recipe-based approach to effective PostgreSQL administration. Throughout this book, you will be introduced to these new features such as logical replication, native table partitioning, additional query parallelism, and much more. You will learn how to tackle a variety of problems that are basically the pain points for any database administrator - from creating tables to managing views, from improving performance to securing your database. More importantly, the book pays special attention to topics such as monitoring roles, backup, and recovery of your PostgreSQL 10 database, ensuring high availability, concurrency, and replication. By the end of this book, you will know everything you need to know to be the go-to PostgreSQL expert in your organization. What you will learn Get to grips with the newly released PostgreSQL 10 features to improve database performance and reliability Manage open source PostgreSQL versions 10 on various platforms. Explore best practices for planning and designing live databases Select and implement robust backup and recovery techniques in PostgreSQL 10 Explore concise and clear guidance on replication and high availability Discover advanced technical tips for experienced users Who this book is for This book is for database administrators, data architects, developers, or anyone with an interest in planning for, or running, live production databases using PostgreSQL. It is most suited to those looking for hands-on solutions to any

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

problem associated with PostgreSQL administration.

*The most updated PostgreSQL book on the market, covering version 8.0 *Highlights the most popular PostgreSQL APIs, including C, Perl, PHP, and Java

*This is two books in one; it simultaneously covers key relational database design principles, while teaching PostgreSQL

PostgreSQL has become the most advanced open source database on the market. This book adopts a step-by-step approach to meet almost every requirement you can think of while deploying PostgreSQL in production environments. You will not only learn how to design and manage your database but also discover how to administer and secure the database.

Get up to speed with core PostgreSQL tasks such as database administration, application development, database performance monitoring, and database testing

Key Features Build real-world enterprise database management systems using Postgres 12 features

Explore the development, administrative and security aspects of PostgreSQL 12 Implement best practices from industry experts to build powerful database applications

Book 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

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

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 learn

- Set up high availability PostgreSQL database clusters in the same containment, a cross-containment, and on the cloud
- Monitor the performance of a PostgreSQL database
- Create automated unit tests and implement test-driven development for a PostgreSQL database
- Develop PostgreSQL apps on cloud platforms using DevOps with Python and Node.js
- Write robust APIs for PostgreSQL databases using Python programming, Node.js, and PostgREST
- Create a geospatial database using PostGIS and PostgreSQL
- Implement automatic configuration by Ansible and Terraform for Postgres

Who this book is for
This PostgreSQL book is for database developers, database administrators, data architects, or anyone who

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

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. 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.

This book includes the newly introduced features in PostgreSQL 11, and shows you how to build better PostgreSQL applications, and administer your PostgreSQL database efficiently. You will master the advanced features of PostgreSQL and acquire the necessary skills to build efficient database solutions. Thinking of migrating to PostgreSQL? This updated guide helps you quickly understand and use the 9.3 release of this open source database system. You'll not only learn about its unique enterprise-class features, but also discover that PostgreSQL is more than just a database system—it's also an impressive application platform. Using numerous examples, this book shows you how to achieve tasks that are difficult or impossible in other databases. The second edition covers LATERAL queries,

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

augmented JSON support, materialized views, and other key topics. If you're an existing PostgreSQL user, you'll pick up gems you may have missed along the way. 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 replicate data, using built-in replication features

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

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

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

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

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

Write optimized queries. This book helps you write queries that perform fast and deliver results on time. You will learn that query optimization is not a dark art practiced by a small, secretive cabal of sorcerers. Any motivated professional can learn to write efficient queries from the get-go and capably optimize existing queries. You will learn to look at the process of writing a query from the database engine's point of view, and know how to think like the database optimizer. The book begins with a

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

discussion of what a performant system is and progresses to measuring performance and setting performance goals. It introduces different classes of queries and optimization techniques suitable to each, such as the use of indexes and specific join algorithms. You will learn to read and understand query execution plans along with techniques for influencing those plans for better performance. The book also covers advanced topics such as the use of functions and procedures, dynamic SQL, and generated queries. All of these techniques are then used together to produce performant applications, avoiding the pitfalls of object-relational mappers.

What You Will Learn

- Identify optimization goals in OLTP and OLAP systems
- Read and understand PostgreSQL execution plans
- Distinguish between short queries and long queries
- Choose the right optimization technique for each query type
- Identify indexes that will improve query performance
- Optimize full table scans
- Avoid the pitfalls of object-relational mapping systems
- Optimize the entire application rather than just database queries

Who This Book Is For

IT professionals working in PostgreSQL who want to develop performant and scalable applications, anyone whose job title contains the words “database developer” or “database administrator” or who is a backend developer charged with programming database calls, and system architects involved in the overall design

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

of application systems running against a PostgreSQL database

A practical guide to administer, monitor and replicate your PostgreSQL 11 database Key Features Study and apply the newly introduced features in PostgreSQL 11 Tackle any problem in PostgreSQL 11 administration and management Catch up on expert techniques for monitoring, fine-tuning, and securing your database Book Description

PostgreSQL is a powerful, open source database management system with an enviable reputation for high performance and stability. With many new features in its arsenal, PostgreSQL 11 allows you to scale up your PostgreSQL infrastructure. This book takes a step-by-step, recipe-based approach to effective PostgreSQL administration. The book will introduce you to new features such as logical replication, native table partitioning, additional query parallelism, and much more to help you to understand and control, crash recovery and plan backups. You will learn how to tackle a variety of problems and pain points for any database administrator such as creating tables, managing views, improving performance, and securing your database. As you make steady progress, the book will draw attention to important topics such as monitoring roles, backup, and recovery of your PostgreSQL 11 database to help you understand roles and produce a summary of log files, ensuring

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

high availability, concurrency, and replication. By the end of this book, you will have the necessary knowledge to manage your PostgreSQL 11 database efficiently. What you will learn

- Troubleshoot open source PostgreSQL version 11 on various platforms
- Deploy best practices for planning and designing live databases
- Select and implement robust backup and recovery techniques in PostgreSQL 11
- Use pgAdmin or OmniDB to perform database administrator (DBA) tasks
- Adopt efficient replication and high availability techniques in PostgreSQL
- Improve the performance of your PostgreSQL solution

Who this book is for This book is designed for database administrators, data architects, database developers, or anyone with an interest in planning and running live production databases using PostgreSQL 11. It is also ideal if you're looking for hands-on solutions to any problem associated with PostgreSQL 11 administration. Some experience with handling PostgreSQL databases will be beneficial

Among the many configuration management tools available, Ansible has some distinct advantages—it's minimal in nature, you don't need to install anything on your nodes, and it has an easy learning curve. This practical guide shows you how to be productive with this tool quickly, whether you're a developer deploying code to production or a system administrator looking for a better automation

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database

solution. Author Lorin Hochstein shows you how to write playbooks (Ansible's configuration management scripts), manage remote servers, and explore the tool's real power: built-in declarative modules. You'll discover that Ansible has the functionality you need and the simplicity you desire. Understand how Ansible differs from other configuration management systems Use the YAML file format to write your own playbooks Learn Ansible's support for variables and facts Work with a complete example to deploy a non-trivial application Use roles to simplify and reuse playbooks Make playbooks run faster with ssh multiplexing, pipelining, and parallelism Deploy applications to Amazon EC2 and other cloud platforms Use Ansible to create Docker images and deploy Docker containers

What is pgRouting? It's a PostgreSQL extension for developing network routing applications and doing graph analysis. This book will give you all the tools and information you need to get started with pgRouting, as well as complete code examples and even how to deploy your project to the web. This book will get you up and running with the working of relational databases, data modeling, data manipulation, and more. You will learn to build efficient relational database solutions from scratch using the latest features of PostgreSQL 12 and 13. You'll also be able to identify bottlenecks to

Where To Download Postgresql Up And Running A Practical Guide To The Advanced Open Source Database.

enhance the performance of database applications.

[Copyright: 102e572626342b6d84ec21df7a8b1e9c](https://www.postgresql.org/)