

Search for...

Search the documentation for...

Q

13th October 2022: PostgreSQL 15 Released!

Documentation → PostgreSQL 15

Supported Versions: Current (15) / 14 / 13 / 12 / 11 / 10

Development Versions: devel

Unsupported versions: 9.6 / 9.5 / 9.4 / 9.3 / 9.2 / 9.1 / 9.0 / 8.4 / 8.3 / 8.2 / 8.1 / 8.0 /

7.4 / 7.3 / 7.2

PostgreSQL 15.0 Documentation

Next

Q

PostgreSQL 15.0 Documentation

The PostgreSQL Global Development Group

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Legal Notice

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- 3. Conventions
- 4. Further Information
- 5. Bug Reporting Guidelines

I. Tutorial

- 1. Getting Started
- 2. The SQL Language
- 3. Advanced Features

II. The SQL Language

- 4. SQL Syntax
- 5. Data Definition



BEDROCK STREAMING

- Cutting-edge video streaming platforms to broadcasters and media companies in Europe
- More than 45 million users
- Founded by M6 Group in 2020
- 15 years' experience
- 400+ team members



SARAH HAÏM-LUBCZANSKI

- Documentation Architect at Bedrock Streaming, (previously Technical Writer, previously PHP Developer)
- I like Monty Python, riding my bike, eating pizzas, and learn new things everyday.





HOW I GOT HERE

- I read many documentations
- Training my colleagues



DISCLAIMER ABOUT POSTRESQL



I am not using Postgres right now!



POSTGRESQL TO ME, TODAY

- A counter example
- Walls of text https://www.postgresql.org/docs/15/trigger-definition.html



AGENDA

- #1: Documentation today
- #2 : By topic
 - Architecture
 - Content
 - Contribution
- #3: My conclusion



DOCUMENTATION NOWADAYS



DOCISATOOL

- Documentation = tool
- You can do everything yourself, sure!





TODAY IN DOC: ARCHITECTURE

• In current documentation best practices



DIATAXIS?

- A framework to tidy your documentation
- https://www.diataxis.fr





LEARNING-ORIENTED

- Serve our study -

UNDERSTANDING-ORIENTED

EXPLANATION

TUTORIALS HOW-TO GUIDES

TASK-ORIENTED

– Serve our work

INFORMATION-ORIENTED

REFERENCE



BENEFITS OF DIATAXIS

- Clarity!
- Guide for documentation writers



EXAMPLE OF WEBSITES USING DIATAXIS

- MDN
- MS SQL Documentation
- Kubernetes Documentation



TODAY IN DOC: UX AND PERSONAS



PERSONAS

- Skills
- Needs
- Experience with your software



AUDIENCE

• It's about the role of the reader



IN THE DOCUMENTATION

- The audience is important
- Who is reading?



SOCIAL MEDIA ERA

- Seek help
- Get advices
- Compare solutions



TWITTER IS MY ADDICTION

- Too often relying on tweets
- But...this time...
- I used it to learn more about PostgreSQL



WHAT DOES TWITTER SAY?

Good things about you!









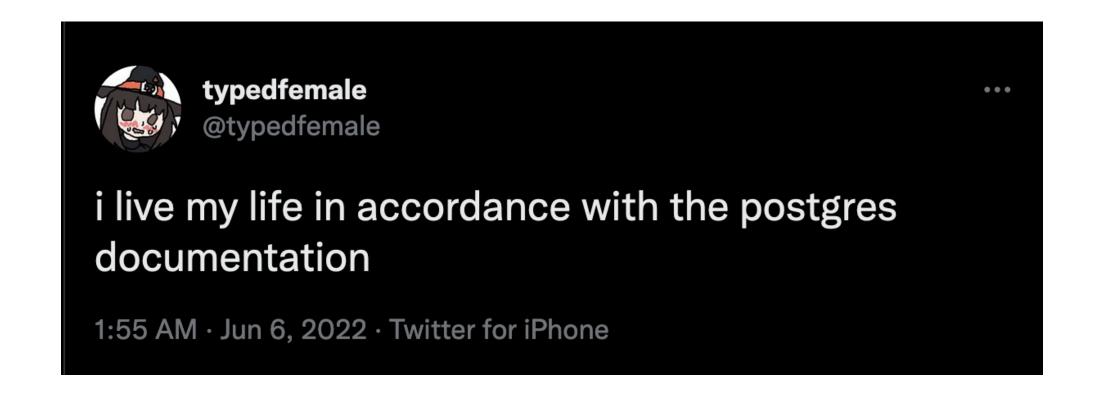














NOW, IN POSTGRES DOC



ARCHITECTURE: THE GOOD

- Sections organized
- Many many chapters
 - Already in sections



SECTIONS

- Part I. Tutorial
- Part II. The SQL Language
- Part III. Server Administration
- Part IV. Client Interfaces
- Part V. Server Programming
- Part VI. Reference
- Part VII. Internals

WHEN I SAY MANY CHAPTERS...



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- 25. Routine Database Maintenance Tasks
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- 27. High Availability, Load Balancing, and Replication
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- 29. Monitoring Disk Usage
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- 31. Logical Replication
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- 33. Regression Tests

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- 49. Logical Decoding
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- 51. Archive Modules

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- I. SOL Commands
- II. PostgreSQL Client Applications
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SOME ARE SCARY

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ARE ALL OF THESE USEFUL?



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    J.3.5. Syntax Check
J.4. Documentation Authoring
    J.4.1. Emacs
J.5. Style Guide
    J.5.1. Reference Pages
```

PostgreSQL has four primary documentation formats:

- Plain text, for pre-installation information
- HTML, for on-line browsing and reference
- PDF, for printing

PREFACE



Preface

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- 1. What Is PostgreSQL?
- 2. A Brief History of PostgreSQL
 - 2.1. The Berkeley POSTGRES Project
 - 2.2. Postgres95
 - 2.3. PostgreSQL
- 3. Conventions
- 4. Further Information
- 5. Bug Reporting Guidelines
 - 5.1. Identifying Bugs
 - 5.2. What to Report
 - 5.3. Where to Report Bugs

This book is the official documentation of PostgreSQL. It has been written by the PostgreSQL developers and other volunteers in parallel to the development of the PostgreSQL software. It describes all the functionality that the current version of PostgreSQL officially supports.

To make the large amount of information about PostgreSQL manageable, this book has been organized in several parts. Each part is targeted at a different class of users, or at users in different stages of their PostgreSQL experience:

- Part I is an informal introduction for new users.
- Part II documents the SQL query language environment, including data types and functions, as well as user-level performance tuning. Every PostgreSQL user should read this.
- Part III describes the installation and administration of the server. Everyone who runs a PostgreSQL server, be it for private use or for others, should read this part.
- Part IV describes the programming interfaces for PostgreSQL client programs.
- Part V contains information for advanced users about the extensibility capabilities of the server. Topics include user-defined data types and functions.
- Part VI contains reference information about SQL commands, client and server programs. This part supports the other parts with structured information sorted by command or program.



SQL, IT'S BASIC

- II. The SQL Language
 - 4. SQL Syntax
 - 5. Data Definition
 - 6. Data Manipulation
 - 7. Queries
 - 8. Data Types
 - 9. Functions and Operators
 - 10. Type Conversion
 - 11. Indexes
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 - 13. Concurrency Control
 - 14. Performance Tips
 - 15. Parallel Query



SQL, IT'S EVERYWHERE (1)

37. THE IIIIUI HIAUUH SCHE

V. Server Programming 38. Extending SQL

20 T...



SQL, IT'S EVERYWHERE (2)

51. Archive Modules

VI. Reference

I. SQL Commands



ARCHITECTURE: IMPROVEMENTS

- Add section description in the header
- Organize by type of content
- Rename some sections?

5.4. Constraints
Chapter 5. Data Definition

Home

Next



AND IN 2000, A RE-ORG WAS DISCUSSED

Documentation organization

From: Peter Eisentraut <peter_e(at)gmx(dot)net>

To: pgsql-docs(at)postgresql(dot)org

Subject: Documentation organization

Date: 2000-06-29 17:28:13

Message-ID:Pine.LNX.4.21.0006291616400.397-100000@localhost.localdomain

Views: Raw Message | Whole Thread | Download mbox | Resend email

Thread: 2000-06-29 17:28:13 from Peter Eisentraut <peter_e(at)gmx(dot)net>

\$

Lists: pgsql-docs

I've been looking into ways to handle the User/Admin/Programmer vs Integrated dichotomy a little better. I think the intergrated document as we know it needs to go. There's too much weirdness in the order (e.g., the tutorial coming after the FE/BE protocol, release notes somewhere in the middle, etc.) that is created by just pasting together the "guides". Also, the chapters are numbered differently, which makes referring to them by number impossible.



TAKE YOUR TIME

- 26 years!
- You don't change it so quickly



LOOKING STACKOVERFLOW: THE BAD









IMPROVEMENT / MORE SUMMARIES

- Maybe some « shortcuts » pages are missing
- A TL;DR?



BEDROCK

DOCUMENTATION TO GO!

Excerpts from this Manual

MySQL Backup and Recovery

MySQL Globalization

MySQL Information Schema

MySQL Installation Guide

Security in MySQL

Starting and Stopping MySQL

MySQL and Linux/Unix

MySQL and Windows

MySQL and macOS

MySQL and Solaris

Building MySQL from Source

MySQL Restrictions and Limitations

MySQL Partitioning

MySQL Tutorial

MySQL Performance Schema

MySQL Replication

Using the MySQL Yum Repository

MySQL NDB Cluster 8.0



UX AND DESIGN



TONE AND JOKES

- The content is clear and very readable.
- Jokes are well done and non-intrusive.



CODE EXAMPLES: SQL

- Clear
- Useful



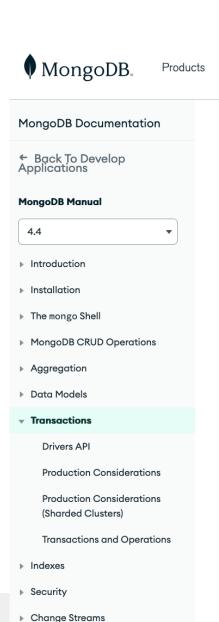
FORMATTING OF THE CONTENT

Tip

When you create many interrelated tables it is wise to choose a consistent naming pattern for the tables and columns. For instance, there is a choice of using singular or plural nouns for table names, both of which are favored by some theorist or other.

MORE CALLOUTS?





Solutions

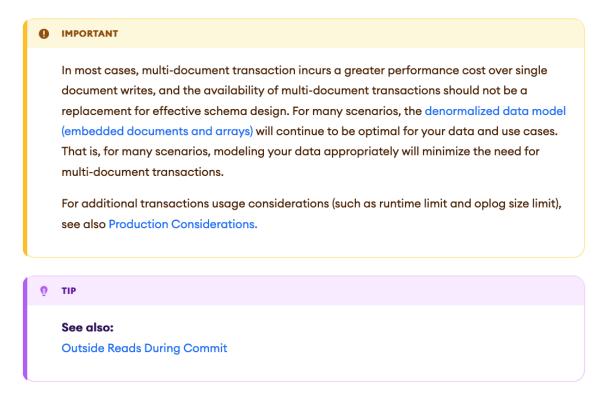
Resources

Transactions and Operations

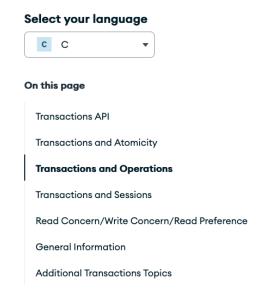
and, starting in MongoDB 4.2, shards.

For transactions:

Company



Pricing



You can specify read/write (CRUD) operations on existing collections. For a list of CRUD

Distributed transactions can be used across multiple operations, collections, databases, documents,



TOO MUCH CLUTTER?

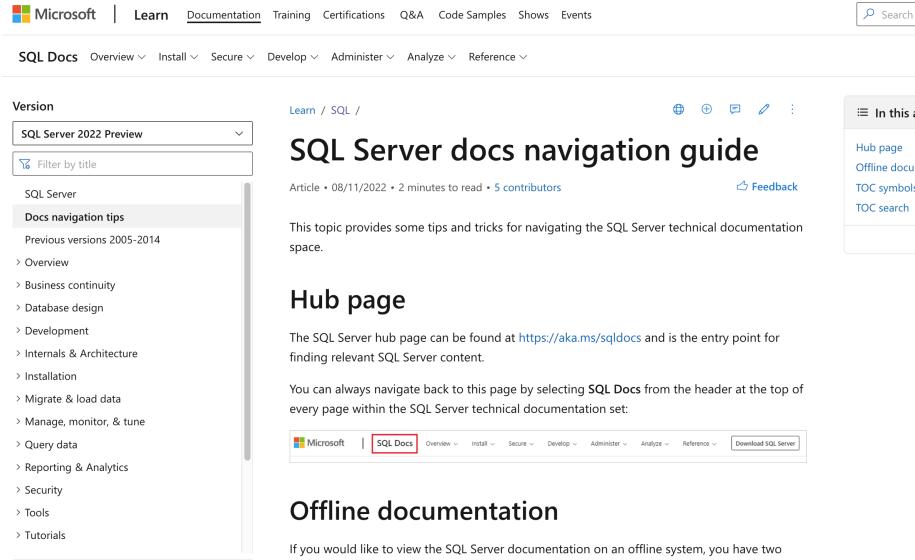
- A doc about the doc?
- You are not alone

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options to do so. You can either create a PDF wherever you are in the SQL Server technical documentation, or you can download the offline content using SQL Server offline Help Viewer.

PGDay Strasbourg 2023



VERSIONNING

• It's expected by the readers



VERSIONS: THE GOOD

- Delivered with the software
- Archived versions are accessible



VERSIONS

- Many versions
- Latest is visible
- Why so many versions available?



You can view the manual for an older version or download a PDF of a manual from the below table.

Online Version	PDF Version
15 / Current	A4 PDF (13.5 MB) • US PDF (13.4 MB)
14	A4 PDF (13.3 MB) • US PDF (13.2 MB)
13	A4 PDF (12.9 MB) • US PDF (12.8 MB)
12	A4 PDF (12.6 MB) • US PDF (12.5 MB)
11	A4 PDF (12.3 MB) • US PDF (12.2 MB)
10	A4 PDF (12.0 MB) • US PDF (11.9 MB)
Development snapshot	PDF version not available

Looking for documentation for an older, unsupported, version? Check the **archive** of older manuals.



IMPROVEMENT / VERSIONING

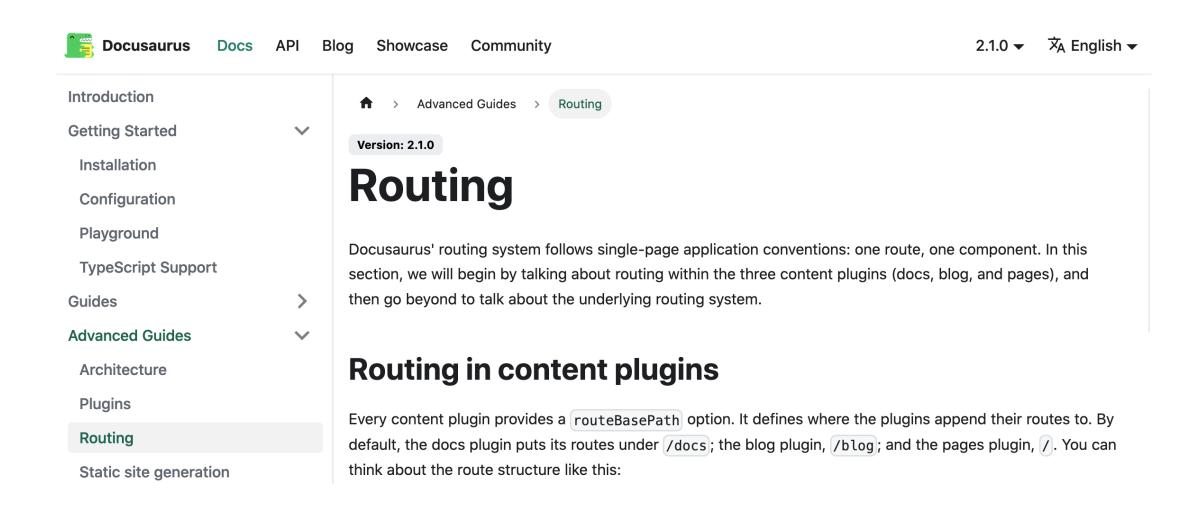
- What am I viewing?
- Is it obsolete?
- issue coming from external website



Chapter 15. Parallel Query



EXAMPLE: DOCUSAURUS SHOWS VERSION





IMAGES



DIAGRAMS, THEORY

- Explain
- Confirms
- Visual learners

DUCK DB



DuckDB

Documentation >

Blog

GitHub

Contributing

Installation

- ▶ Guides
- Documentation

Connect

- ▶ Data Import
- ▶ Client APIs
- **▼ SQL**

Introduction

Statements

Overview

Select

Insert

Delete

Update

Create Schema

Create Table

Create View

Create Sequence

Create Macro

Drop

Alter Table

Copy

Export

- ▶ Query Syntax
- Data Types
- ► Expressions
- ▶ Functions

Indexes

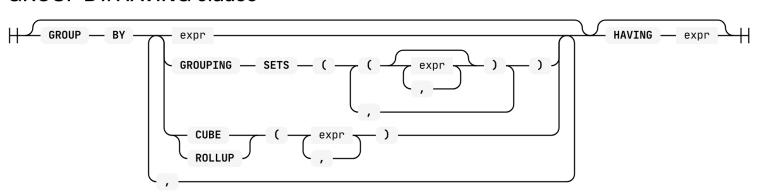
Aggregates

can also be used to quickly see a snapshot of the data when exploring a data set. The sample clause is applied right after anything in the from clause (i.e. after any joins, but before the where clause or any aggregates). See the sample page for more information.

WHERE clause

The WHERE clause specifies any filters to apply to the data. This allows you to select only a subset of the data in which you are interested. Logically the WHERE clause is applied immediately after the FROM clause.

GROUP BY/HAVING clause



The GROUP BY clause specifies which grouping columns should be used to perform any aggregations in the SELECT clause. If the GROUP BY clause is specified, the query is always an aggregate query, even if no aggregations are present in the SELECT clause.

DIAGRAMS IN POSTGRES DOC



7.2.3. The GROUP BY and HAVING Clauses

After passing the WHERE filter, the derived input table might be subject to grouping, using the GROUP BY clause, and elimination of group rows using the HAVING clause.

```
SELECT select_list

FROM ...
[WHERE ...]

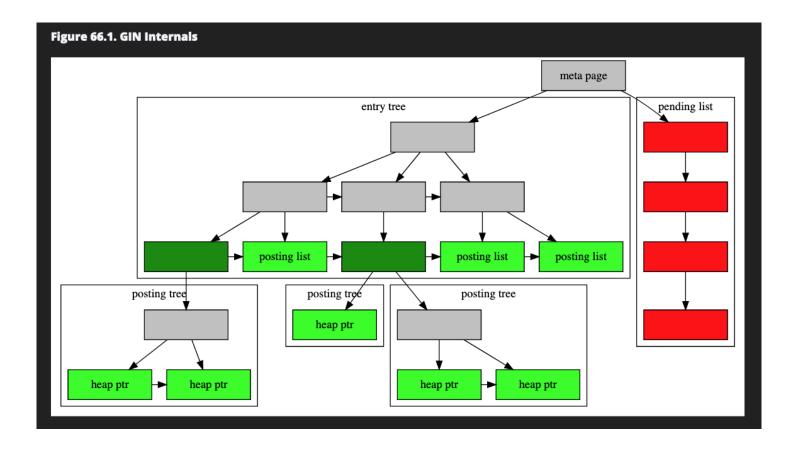
GROUP BY grouping_column_reference [, grouping_column_reference]...
```

The GROUP BY clause is used to group together those rows in a table that have the same values in all the columns listed. The order in which the columns are listed does not matter. The effect is to combine each set of rows having common values into one group row that represents all rows in the group. This is done to eliminate redundancy in the output and/or compute aggregates that apply to these groups. For instance:

In the second query, we could not have written SELECT * FROM test1 GROUP BY x, because there is no single value for the column y that could be associated with each group. The grouped-by columns can be referenced in the select list since they have a single value in each group.



DIAGRAMS IN POSTGRES DOCUMENTATION



- Color choices
- One of the three images





projects / postgresql.git / blob

summary I shortlog I log I commit I commitdiff I tree blame I history I raw I HEAD

Allow nodeSort to perform Datum sorts for byref types

[postgresql.git] / doc / src / sgml / images / README

```
Images
======

This directory contains images for use in the documentation.

Creating an image
------

A variety of tools can be used to create an image. The appropriate choice depends on the nature of the image. We prefer workflows that involve diffable source files.

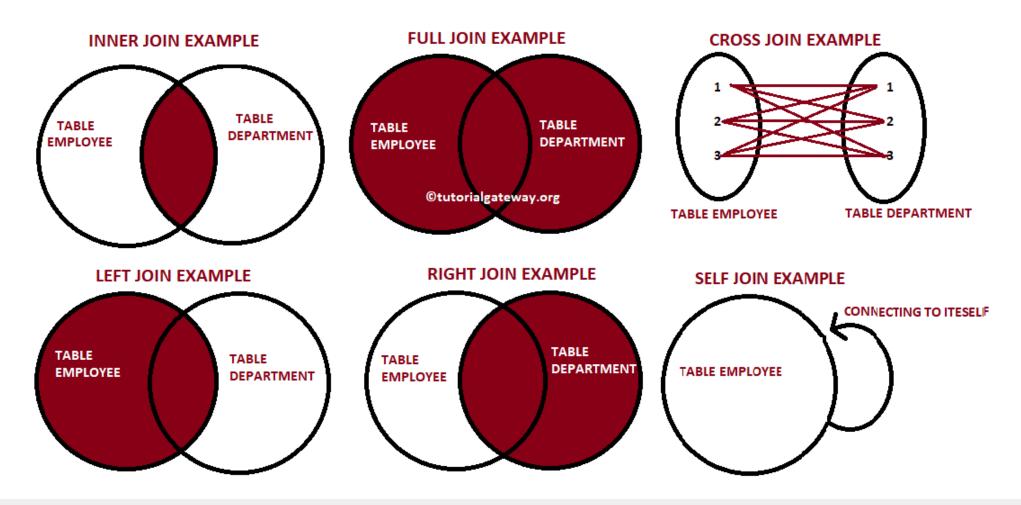
These tools are acceptable:

Graphviz (https://graphviz.org/)
- Ditaa (http://ditaa.sourceforge.net/)
```





• What can we find on the Web?



MAILING-LIST



Re: Images in the official documentation

From: Pavel Golub <pavel(at)microolap(dot)com>

To: Jürgen Purtz <juergen(at)purtz(dot)de>, pgsql-docs(at)lists(dot)postgresql(dot)org

Subject: Re: Images in the official documentation

Date: 2018-07-19 12:06:08

Message-ID:1554502154.20180719150608@gf.microolap.com

Views: Raw Message | Whole Thread | Download mbox | Resend email

Thread: 2018-07-19 12:06:08 from Pavel Golub <pavel(at)microolap(dot)com>

\$

Lists: pgsql-docs

Hello, Jürgen.

You wrote:

JP> Our discussion about grafics in the documentation reached to the JP> conclusion that we shall use SVG, the importance to 'diff-ability' JP> is rated differently, and there is no consensus about tools.

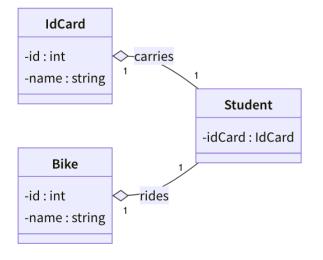


IMAGE AND MAINTENANCE

- It's tool's choice!
- MermaidJS
- XML-based diagrams



```
classDiagram
  direction RL
  class Student {
    -idCard : IdCard
}
  class IdCard{
    -id : int
    -name : string
}
  class Bike{
    -id : int
    -name : string
}
  Student "1" --o "1" IdCard : carries
  Student "1" --o "1" Bike : rides
```



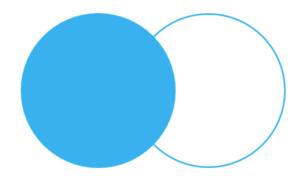


JOINING THE MOVEMENT?

- Why is this tutorial illustrated? https://www.postgresqltutorial.com/postgresql-tutorial/postgresql-joins/
- And not the official documentation?
 https://www.postgresql.org/docs/15/queries-table-expressions.html



TUTORIAL: WITH IMAGES



LEFT OUTER JOIN

To select rows from the left table that do not have matching rows in the right table, you use the left join with a WHERE clause. For example:

```
SELECT

a,
fruit_a,
b,
fruit_b

FROM
basket_a

LEFT JOIN basket_b
ON fruit_a = fruit_b

WHERE b IS NULL;
```

OFFICIAL DOC: TEXT ONLY



Qualified joins

```
T1 { [INNER] | { LEFT | RIGHT | FULL } [OUTER] } JOIN T2 ON boolean_expression
T1 { [INNER] | { LEFT | RIGHT | FULL } [OUTER] } JOIN T2 USING ( join column list )
T1 NATURAL { [INNER] | { LEFT | RIGHT | FULL } [OUTER] } JOIN T2
```

The words INNER and OUTER are optional in all forms. INNER is the default; LEFT, RIGHT, and FULL imply an outer join.

The *join condition* is specified in the **ON** or **USING** clause, or implicitly by the word **NATURAL**. The join condition determines which rows from the two source tables are considered to "match", as explained in detail below.

The possible types of qualified join are:

INNER JOIN

For each row R1 of T1, the joined table has a row for each row in T2 that satisfies the join condition with R1.

LEFT OUTER JOIN

First, an inner join is performed. Then, for each row in T1 that does not satisfy the join condition with any row in T2, a joined row is added with null values in columns of T2. Thus, the joined table always has at least one row for each row in T1.

RIGHT OUTER JOIN

First, an inner join is performed. Then, for each row in T2 that does not satisfy the join condition with any row in T1, a joined row is added with null values in columns of T1. This is the converse of a left join: the result table will always have a row for each row in T2.

FULL OUTER JOIN

First, an inner join is performed. Then, for each row in T1 that does not satisfy the join condition with any row in T2, a joined row is added with null values in columns of T2. Also, for each row of T2 that does not satisfy the join condition with any row in T1, a joined row with null values in the columns of T1 is added.



TEXTUAL CONTENT

- Essential
- Easy to maintain
- Multi-channel & searchable



TEXTUAL CONTENT: THE GOOD IN PG DOC

- Quality
- Amount: almost everything is covered
- Detailed, thourough



WALLS OF TEXTS, PLURAL

- 1/ Trigger Overview https://www.postgresql.org/docs/15/trigger-definition.html
- 2/ GIN extensibility https://www.postgresql.org/docs/13/gin-extensibility.html
- 3/ TOAST Database Physical Storage
 https://www.postgresql.org/docs/13/storage-toast.html#STORAGE-TOAST-ONDISK



BREAKIN' THE WALL

• Why is this page more clear than the official doc?

https://www.tutorialspoint.com/postgresql/postgresql_triggers.htm



TEXTUAL CONTENT: IMPROVE

- Add images
- Bullet points are ok
- Use emphasis, bold



BE BOLD!

- Improvement/ Be bold
- Sometimes, being bold is **helpful for the reader**
- Scanning the content
- Looking for **information**



BEGINNERS



TODAY IN DOCS: BEGINNERS

- Getting Started
- Overview
- Synthetic views
- Examples

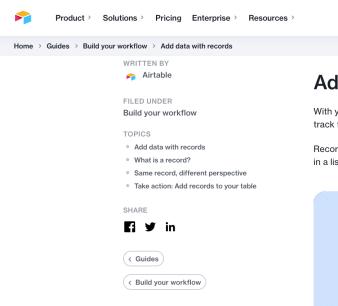


DIFFERENT MEDIA OR CHANNELS

- Tutorials
- Videos

AIRTABLE





Add data with records

With your base's structure set up, you're ready to start filling in all the items you need to track for your workflow.

Records are the core unit of your Airtable base. Each one might look like a simple item in a list, but they're actually the most important building blocks for a dynamic workflow.



What is a record?

A record is an individual item in a table, along with all of its relevant details. You can think of it as the individual unit of the table—if your table is organizing events at a conference, each record would be a presentation, or if you're producing a television series, each record would be an individual episode.



FIRST STEPS

Guidance wanted



LEARNING SQL: GOOD





CHOOSE YOUR OWN ADVENTURE TALK





SUGGESTION

Personas/paths by profile



CONTRIBUTING

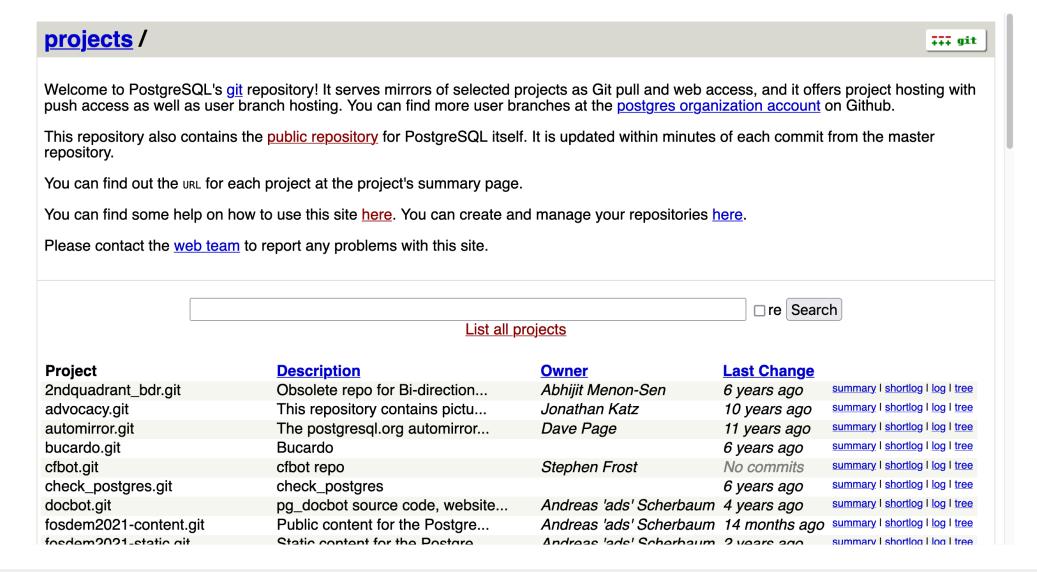


CONTRIBUTING TODAY

- Technical pre-requisite
- Today: git, via github/gitlab



THE GOOD: CONTRIBUTE TO POSTGRES





CONTRIBUTING THE PROCESS

- Today smoothing contribution
- We want to ease it
- Many channels and events
 - HacktoberFest



CONTRIBUTOR GUIDE

- Giving best practices, guidance
- PHP Contributor Guide (http://doc.php.net/tutorial/)



CONTRIBUTE TO POSTGRES DOCUMENTATION

- The Wiki
- CommitFest



CONTRIBUTION PROCESS

- Who will review my contribution?
- Who's in charge?
- What is the update cycle for the documentation?



CONTRIBUTE TO POSTGRES DOC

Documentation

- □ Provide a manpage for postgresql.conf
 - A smaller default postgresql.conf
 - A smaller default postgresql.conf
- □ Document support for N' 'national character string literals, if it matches the SQL standard
 - http://archives.postgresql.org/message-id/1275895438.1849.1.camel@fsopti579.F-Secure.com



CHANGING THE DOCUMENTATION

• A form in footer

Submit correction

If you see anything in the documentation that is not correct, does not match your experience with the particular feature or requires further clarification, please use **this form** to report a documentation issue.



DOCUMENTATION REVIEW

- Governance is not clear
 - from an external point of view



IN CONCLUSION



A GOOD DOCUMENTATION

- Gain of time
- Really helpful
- Communicates your choices
- Teach your best practices



OLD AND IT SHOWS

Old fashioned





CONTENT

- Written by experts
- For experts



WELCOMING

- Community is welcoming
- Beginners...could still struggle



IMPORTANT QUESTION





MY OPINION

- 25+ years old and it shows
- Improvements
 - Orientation page by persona
 - Renaming sections (BC break)
 - UX: more diagrams
 - Welcoming doc contributors



MERCI BEAUCOUP!

- Thanks!
- Thanks to Lætitia Avrot and the Postgres Conf team
 - Images, except screenshots, are from <u>Wikimedia Commons</u>



QUESTIONS?

- Contact me
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 - Mastodon: @mereteresa@tetaneutral.net

BEDROCK

Creating Streaming Champions