



Path to Digital Enlightenment

# Postgres: The perfect Database for Nepal

Oleg Bartunov

PostgreSQL Global Development Group  
Lomonosov Moscow University  
Postgres Professional

May 5, 2025, PGConf.Nepal, Nepal

May 5, 1995 - Postgres95 v 0.01 was released !

# Postgres developer/contributor since 1995



OLEG BARTUNOV





# My Second Home (26 visits)



From: Tinkar La



To: Kanchenjunga




Hidden Wall of Jannu East



Lotos Stupa, Lumbini



# The first PostgreSQL talk in Nepal, May 4, 2009

wiki.fossnepal.org/index.php?title=FOSS_Ka_Kura					Search		↓	≡	ABP	yD	✎	A	📅	☰
	May 4th 2009	Introduction to PostgreSQL and talk on Full-text search capabilities in PostgreSQL	Oleg Bartunov (/ <a href="http://www.sai.msu.su/~magera/">http://www.sai.msu.su/~magera/</a>  )		M.Sc. Hall, Dept. of Electronics and Computer Engineering, IOE									



Kerosene was used to power my notebook and projector

I gave a talk about full text search in postgresql after trek. We made special support of nepali locale to make it works right. There was no light in the university, so we used generator to power notebook and projector. It was really funny to speak for people sitting in the darkness.

```
commit e43bb5beb78bef14f012279a730c3d1914db7e83
Author: Teodor Sigaev <teodor@sigaev.ru>
Date:   Wed Mar 11 16:03:40 2009 +0000
```

Some languages have symbols with zero display's width or/and vowels/signs which are not an alphabetic character although they are not word-breakers too. So, treat them as part of word.

Per off-list discussion with Dibyendra Hyoju <dibyendra@gmail.com> and Bal Krishna Bal <balkrishna7bal@gmail.com> about **Nepali** language and Devanagari alphabet.



# The first PostgreSQL talk in Nepal, May 4, 2009



## FTS 8.4

- Devanagari script support (better Unicode support)

```
postgres=# set client encoding to UTF8;  
postgres=# select * from ts_parse('default', 'मदन पुरस्कार पुस्तकालय');
```

tokid	token
2	मदन
12	
2	पुरस्कार
12	
2	पुस्तकालय

(5 rows)

Thanks to Dibyendra Hyoju and Bal Krishna Bal  
for testing and valuable discussion



Kerosene was used to  
power my notebook and  
projector



# PostgreSQL has built-in Nepali support since 2018

PGConf Nepal 2018  
May 04- 05, 2018




## Nepali Support for Full Text Search in PostgreSQL

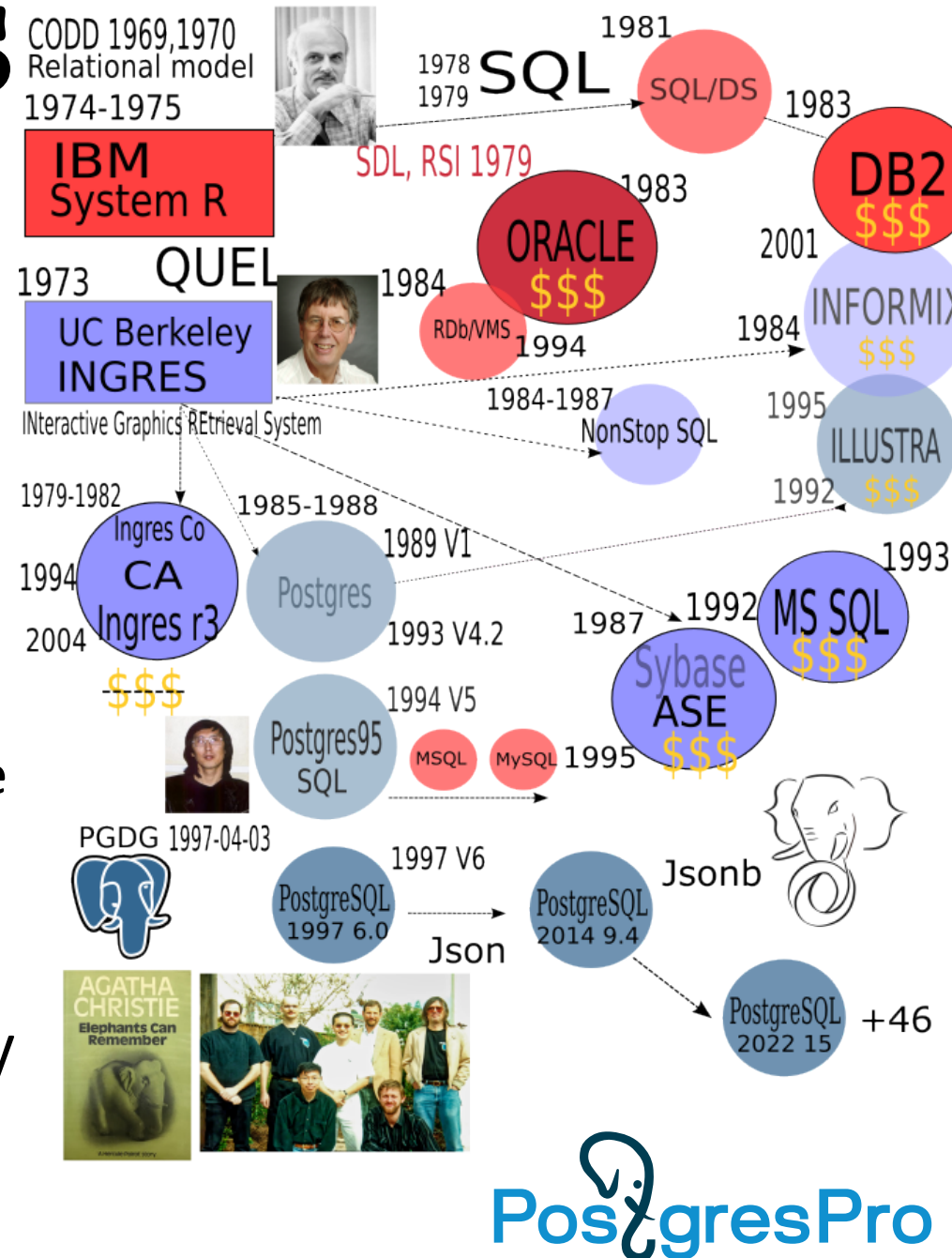
**- Ingroj Shrestha**

*Team Lead, NLP R&D Engineer and Tech Blogger  
Nepali NLP Group*

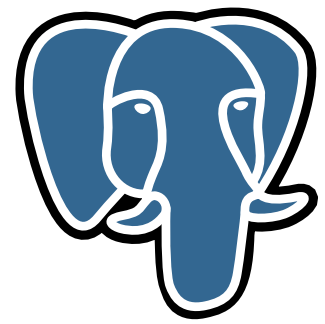


# Postgres Facts

- Ingres — Relational database, speaks QUEL
- Postgres — Post [Ingres], speaks PostQUEL
- Postgres95 — Open-Source Postgres
- PostgreSQL — Postgres+SQL
  - Now, just Postgres, or Pg, or Pgsql
  - Don't say Postgre !!!
  - The world's most advanced open source database
- Official Elephant Logo (Slonik) 
- Postgres, PostgreSQL and the Slonik Logo are Trademarks of the PostgreSQL Community Association of Canada, and used with their permission.







# What is a Slonik ?



PGsearch MailWare E-R-E dict

[Search](#) | [Search for selection](#) | [Fresh postings](#) | [About](#)

## Re: [HACKERS] PostgreSQL logo.

**Author:** [yang\( at \)sjuphil\( dot \)sju\( dot \)edu](mailto:yang@sjuphil.sju.edu)

**Date:** 1997-04-03 20:36:33

**Subject:** Re: [HACKERS] PostgreSQL logo.

Some other ideas:

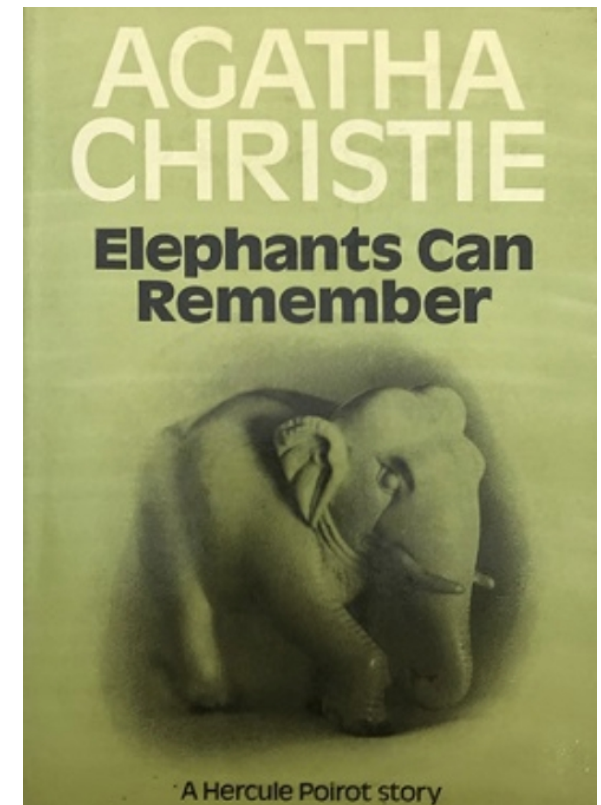
derivative: a sword (derivative of the Dragon book cover -- Postgres as a tool)

illustrative: a bowl of Alphabet Soup, with letters spelling out POSTGRESQL

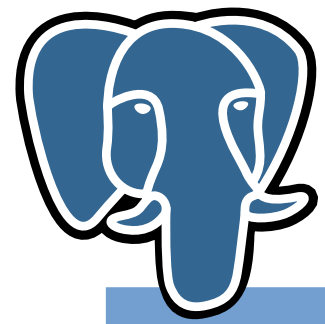
obscure: a revolver/hit man (Grosse Pt is an anagram of Postgres, and an abbreviation of the title of the new John Cusack movie)

but if you want an animal-based logo, how about some sort of elephant?  
After all, as the Agatha Christie title read, elephants can remember ...

David Yang  
[yang@sju.edu](mailto:yang@sju.edu)



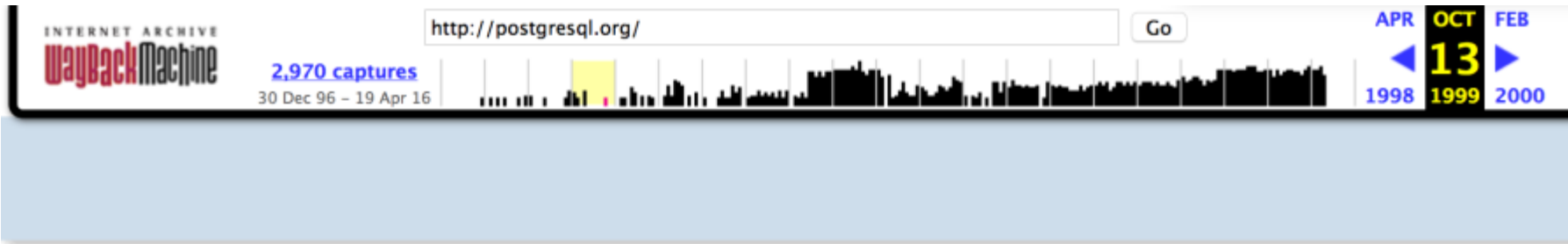




# What is a Slonik ?

Daniel Lundin ?

[https://commons.wikimedia.org/wiki/File:Postgresql\\_elephant.svg](https://commons.wikimedia.org/wiki/File:Postgresql_elephant.svg)



PostgreSQL

Slonik.gif

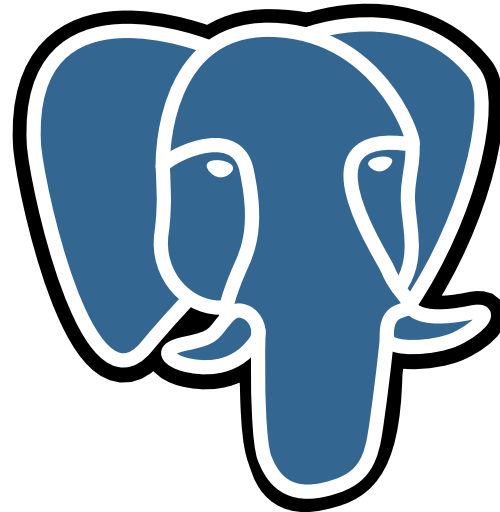
**13 October 1999**



PostgreSQL is a sophisticated Object-Relational DBMS, supporting almost all SQL constructs, including subselects, transactions, and user-defined types and functions. It is the most advanced open-source database available anywhere. [Commercial Support](#) is also available from [PostgreSQL, Inc.](#) The current version is 6.5.2 and is available at [any of the many mirror sites or on CD.](#)



# What is a Slonik ?



Daniel Lundin <dln@eintr.org>

to me ▾



Translate to Russian



Oh man, I think so yeah. IIRC used it for inspiration, then sketched up the vectorized one in illustrator as best I could manage.

Cheers,  
-d



On Wed, Apr 20, 2016 at 11:04 AM, Oleg Bartunov <[obartunov@gmail.com](mailto:obartunov@gmail.com)> wrote:

>

>

> On Wed, Apr 20, 2016 at 12:00 PM, Daniel Lundin <[dln@eintr.org](mailto:dln@eintr.org)> wrote:

>>

>> Haha, yeah that was indeed my doing, waaaaay back when. :)

>

>

> Great, you remember :) Do you use "elephant in diamond" as starter ?

>

>>

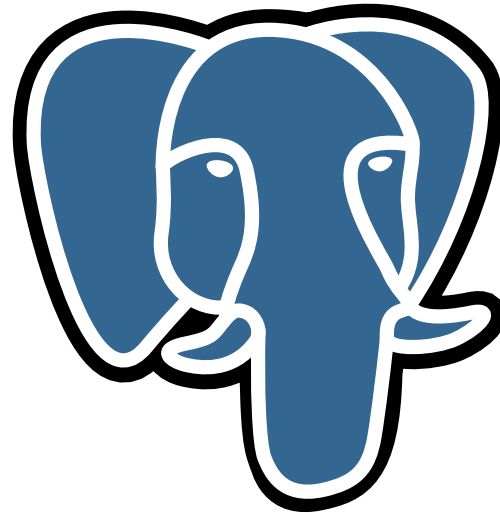
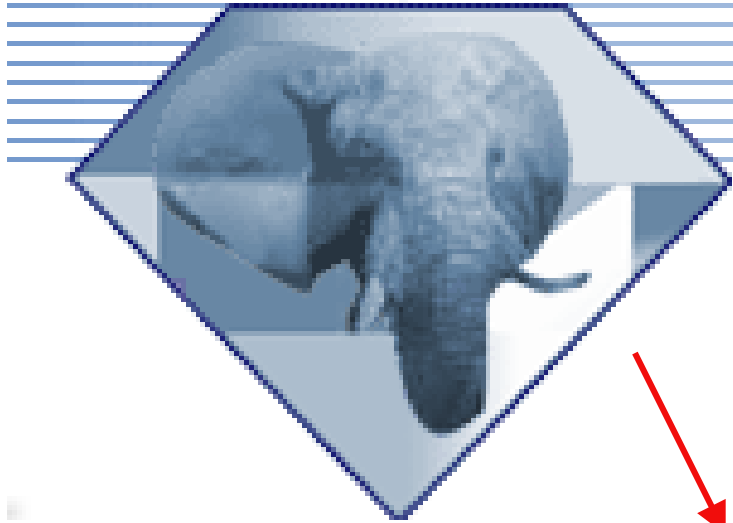
>>

>> Cheers,

>> Daniel

>>

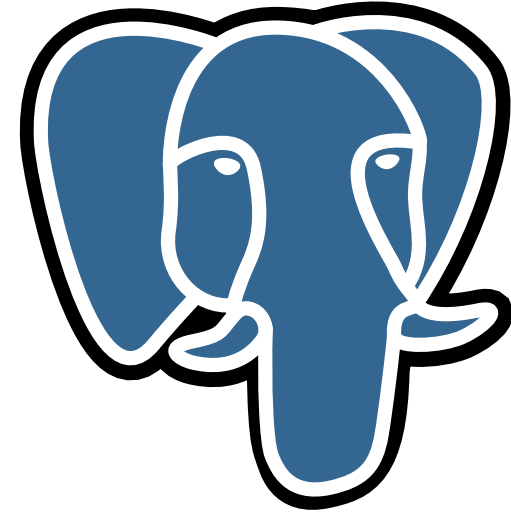
# What is a Slonik ?



Dmitry Samersoff, Sankt-Petersburg Russia



# What is a Slonik ?



Slonik — russian "Little Elephant"

Full story about Postgres Logo (in russian)

# Postgres is Great !

Everyone LOVES Postgres, a Lingua Franca of databases ! Db-engines, StackOverflow, HN ....

Postgres is Free, Powerfull, Extensible,  
Reliable, Resilient, Respectful and Independent  
Community !

Postgres is Eating the Database Market !



# Key Factors for Success

## Technical Excellence (1/2)

- Extensible by Design
  - PostgreSQL supports user-defined types, functions, indexes, languages, and foreign data wrappers, enabling it to evolve and integrate with new domains and external engines. Adapt to a new Data, Queries, Environment, Volume, Velocity.
- Advanced SQL and Standards Compliance
  - Adheres closely to modern SQL standards (including SQL/JSON, SQL/PGQ), while supporting powerful features like window functions, CTEs, full-text search, and rich JSON/JSONB support.
- MVCC and ACID for Data Integrity
  - Multi-Version Concurrency Control ensures high performance and transaction isolation without locks, delivering robust consistency and reliability.

# Key Factors for Success

## Technical Excellence (2/2)

- Powerful Indexing and Optimization
  - Multiple index types (B-tree, GIN, GiST, SP-GiST, Bloom, BRIN, etc.) and advanced query planning make it suitable for OLTP, OLAP, and mixed workloads.
- Robust Tooling and Ecosystem
  - A mature ecosystem of tools and extensions (e.g., PostGIS, pgvector, Apache Age, TimescaleDB) makes PostgreSQL highly adaptable to modern data needs.
- Stability and Backward Compatibility
  - Upgrades and changes are incremental and reliable, with strong guarantees against data loss or disruption.
- **There is still much to improve ...**



# Key Factors for Success

## Community Principles (1/2)

- Meritocratic and Transparent Governance
  - A diverse global community operates with no central corporate owner; contributions and decisions are made in public, based on technical merit.
- Liberal Open Source License
  - The PostgreSQL License (BSD-style) allows unrestricted use, modification, and distribution—enabling adoption in both open and closed systems.
- Independence from Corporate Control
  - The project's direction is guided by the community, not vendors—ensuring long-term trust, neutrality, and consistency.

# Key Factors for Success

## Community Principles (2/2)

- Inclusive and Respectful Culture
  - A clear and enforced **Code of Conduct** creates a safe, welcoming environment that sustains healthy collaboration and broad participation.
- Excellent Documentation
  - Highly detailed, versioned, and technical documentation serves both beginners and experts, reducing support costs and accelerating adoption.

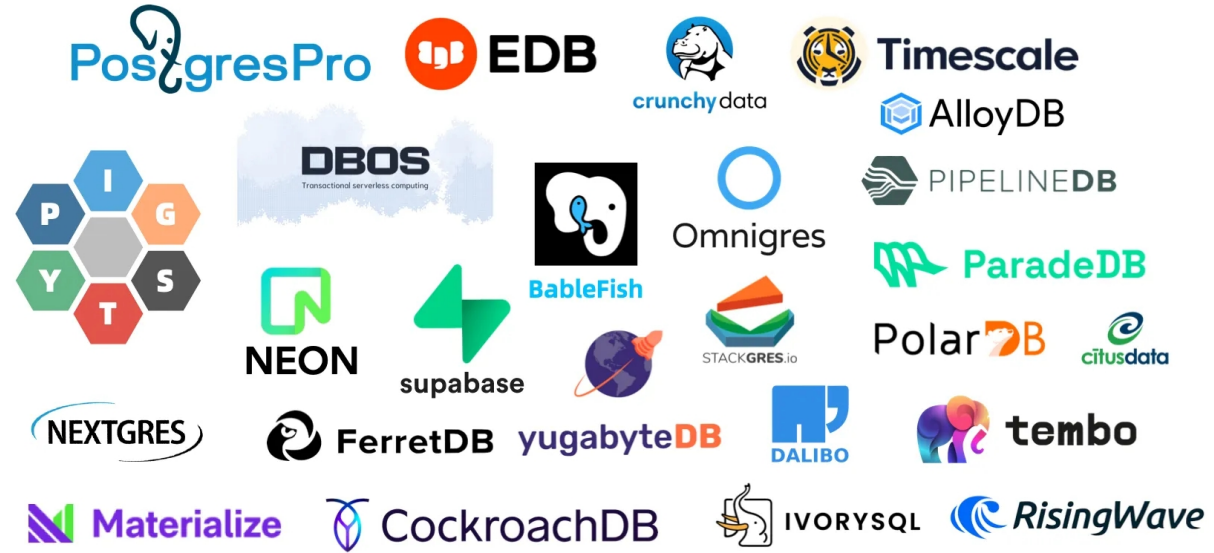
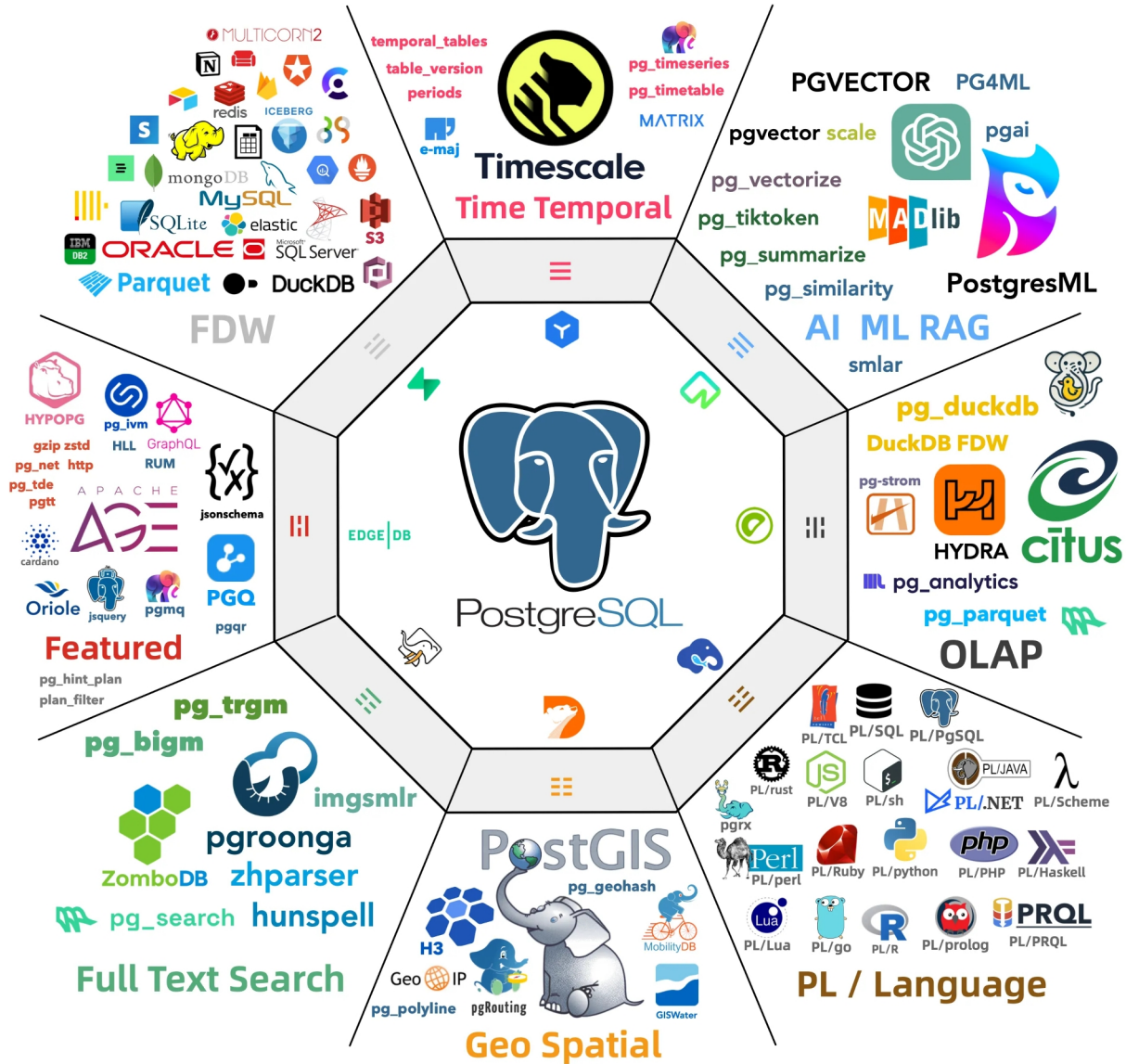


# Key Factors for Success

## Unique Hybrid Development Model (1/2)

- Cathedral Core, Bazaar Ecosystem
  - PostgreSQL blends a stable, community-maintained core with a dynamic, competitive ecosystem of companies building on top of it.
- Coopetition: Compete in the Market, Collaborate in the Core
  - Companies contribute upstream to reduce maintenance burden and gain visibility, while also competing by building advanced features, tools, and services around vanilla PostgreSQL.
- Sustainable Balance of Freedom and Profitability
  - This model ensures that the source code remains **absolutely free**, while companies can build **profitable businesses**—fueling continued innovation and investment.

# Postgres Universe



# 100+ companies

# Postgres For Nepal

Nepal is building its digital future — in governance, infrastructure, and innovation. It needs a database that is:

- Reliable at scale
- Fully sovereign and vendor-independent
- Cost-effective
- Backed by a strong global and local community



# Postgres For Nepal

Nepal is building its digital future. PostgreSQL can be Nepal's data backbone - for government, education, and innovation, the centerpiece of Nepal's digital transformation:

- Technically Powerful
- Open and Independent
- Economically Sustainable

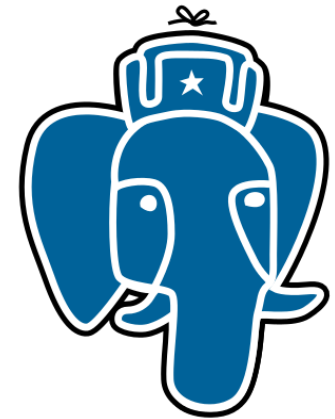
Postgres Community in Nepal is essential !



# Postgres Case in Russia

Russia is one of the most digitally advanced countries in terms of public infrastructure. PostgreSQL is the core DBMS behind:

- Federal Tax Service (millions of TPS)
- Ministry of Finance
- Central Bank
- Large commercial banks
- Public services, healthcare, telecoms, retail
- Proved PostgreSQL works at national scale with critical workloads



# Postgres Case in Russia

Russia is one of the most digitally advanced countries in terms of public infrastructure. Professional Postgres community:

- Postgres Professional drives the community:
  - Conferences, webinars, hackatons, Summer School
  - Educational resources are free for all
  - Professional community in telegram (14000+)
  - Contribute to global Postgres
- Develop closed-source fork for big Enterprises
- There are 100+ postgres forks :)



# Postgres For Nepal

Nepal is building its digital future. PostgreSQL can be Nepal's data backbone - for government, education, and innovation, the centerpiece of Nepal's digital transformation:

- Postgres Community in Nepal is essential, let's build the Community !



# Setup Postgres Community in Nepal

- Vision & Goals

- Mission:

- Promote PostgreSQL adoption, education, and collaboration in Nepal.

- Goals:

- Build a professional postgres community

- Organize meetups, workshops, mentorship programs, and contribute to PostgreSQL development.

- Connect with the Global PostgreSQL Community

- Join PostgreSQL mailing lists: <https://www.postgresql.org/list/>
  - Participate in PostgreSQL Slack: <https://postgres-slack.herokuapp.com/>
  - Engage with PostgreSQL GitHub & Wiki: <https://wiki.postgresql.org/>

# Setup Postgres Community in Nepal

- Build a Local Postgres User Group (PUG)
  - Create a dedicated website or blog
  - Groups and chats in social media (Facebook, Twitter, LinkedIn, Discord, Telegram, YouTube, Meetup.com)
  - Register your PUG on PostgreSQL.org
- Protect Postgres names in Nepal !
  - Domain names, Trade Marks (Postgres, PostgreSQL, Slonik)



# Setup Postgres Community in Nepal

- Organize Meetups & Events
  - Monthly Meetups: Host Postgres talks, hands-on labs, and networking sessions.
  - Workshops & Hackathons: Partner with universities and tech companies.
  - Annual PostgreSQL Conference Nepal — <https://pgconf.org.np/>
  - Inviting Experts: Bring in local and international PostgreSQL contributors.

## Where to host ?

- Edu organizations: Universities (KU, TU, PU...), IT Colleges ( Nagarjuna IT, ...)
- Co-working spaces (Innovate Nepal, Work Around, Regus ....)
- Tech companies (CloudFactory, Leapfrog, Cotiviti ....)

# Setup Postgres Community in Nepal

- Engage Universities & Developers
  - Create a PostgreSQL curriculum for universities.
  - Encourage final-year projects based on Postgres.
  - Conduct mentorship programs for students.
  - Organize coding sprints focused on Postgres development.
- Promote Contributions & Open Source Culture
  - Encourage Nepalese developers to contribute to:
    - Postgres Core Development
    - Extensions (PostGIS, Citus, etc.)
    - Documentation & Translations
    - Host “Contribute to PostgreSQL” workshops

# Setup Postgres Community in Nepal

- Seek Sponsorship & Support
  - Approach tech companies in Nepal (Deerwalk, CloudFactory, EB Pearls).
  - Get support from PostgreSQL sponsors (Postgres Pro, EDB, Crunchy Data, Timescale, .....).
  - Apply for grants from Government, PostgreSQL organizations
- Grow Sustainably
  - Keep engaging members with valuable content.
  - Rotate leadership roles to keep energy high.
  - Expand PostgreSQL Nepal into a regional hub.



# What is available ?

## PostgreSQL: The World's Most Advanced Open Source Relational Database

[PostgreSQL.org](https://www.postgresql.org) website contains information about community resources

# What is available ?



## Google Summer of Code

Google Summer of Code is a global, online mentoring program focused on introducing new contributors to open source software development. GSoC contributors work on a 12+ week programming project with the guidance of mentors from their open source organization.

<https://summerofcode.withgoogle.com/>

<https://wiki.postgresql.org/wiki/GSoC>

# What is available ?



We value all members of the global PostgreSQL community and help them contribute to our events and other Postgres-related activities. Our educational content is **free to use**, which reflects our intention to keep the Postgres world open for everyone.

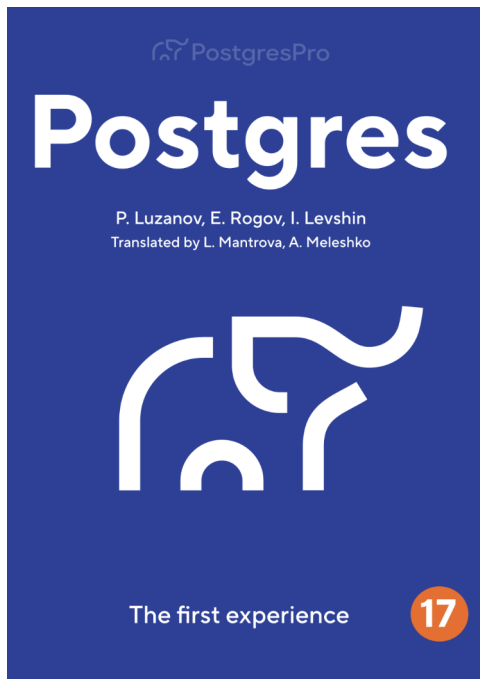
<https://postgrespro.com/community>

[Russian resources](#) include Postgres books, training courses, certification program, university books and courses. Demo-database and glossary. Feel free to contact us if you want to work in translation.



# What is available ?

# PostgresPro



Your first guide to the galaxy of Postgres

This short pamphlet provides an overview of PostgreSQL DBMS, covering the history of its development, the main features, and a product roadmap. If you are just getting started, you can use this book as a step-by-step installation and configuration guide.

We hope it will make your first experience with PostgreSQL more pleasant and help you blend into the PostgreSQL community.

<https://postgrespro.com/community/books/introbook>



# What is available ?

# PostgresPro



A deep dive into the server mechanics.

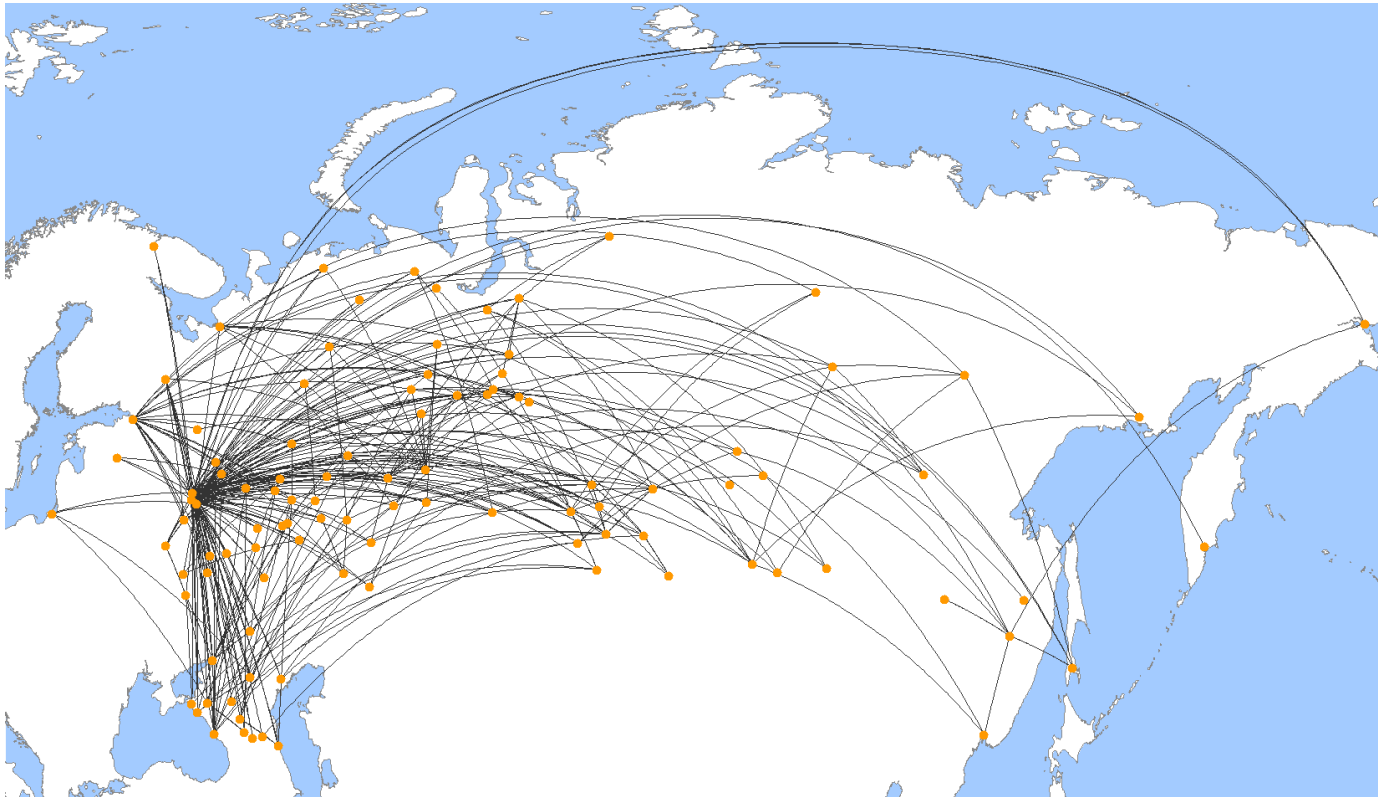
This book is for those who will not settle for a black-box approach when working with a database. Briefly touching upon the main concepts of PostgreSQL, the book then plunges into the depths of data consistency and isolation, explaining implementation details of multiversion concurrency control and snapshot isolation, buffer cache and write-ahead log, and the locking system. The rest of the book covers the questions of planning and executing SQL queries, including the discussion of data access and join

methods, statistics, and various index types.

<https://postgrespro.com/community/books/internals>

# What is available ?

# PostgresPro



Explore the world of SQL queries

Our team offers a free demo database for PostgreSQL. The subject field of this database is airline flights across various airports.

<https://postgrespro.com/community/demodb/>

# What is available ?



- Introduction to PostgreSQL

A two-day course for DBAs and application developers that provides an overview of PostgreSQL architecture and explains the main principles of installing, configuring, and managing the server. You will learn about access control, backups, replication, and other typical database administration tasks.

- DBA1. Basic PostgreSQL Administration

A three-day foundation course that provides the minimum necessary information for DBAs. Includes an overview of PostgreSQL architecture, explains the main principles of installing, configuring, managing, and monitoring the server, in-depths review of access control, and an overview of backups and replication.

# What is available ?



- **DEV1. Basic Server-Side Application Development**  
A four-day course for mastering SQL and PL/pgSQL server-side development. Includes a series of practical assignments based on the Bookstore sample application: from designing a database schema to creating tables, views, functions, and triggers.
- **More courses in English are expected soon.**  
Join us to translate all available courses (in russian)  
<https://postgrespro.ru/education/courses>



ALL

YOU

POSTGRES

NEED

IS

