Alkin Tezuysal

Open Source Database

Evangelist - ACE/RS

/askdba

X

@ask_dba

Born to Sail, Forced to Work!

Previously

Altinity, PlanetScale, Percona and Pythian
as Director, STM, SRE, DBA

Earlier in Life

Enterprise DBA , Informix, Oracle, DB2 , SQL Server

- **Recent Recognitions:**
  Most Influential in Database Community 2022 - The Redgate 100
- MySQL Cookbook, 4th Edition 2022 - O'Reilly Media, Inc.
- MySQL Rockstar 2023 - Oracle (MySQL Community)
- Database Design and Modeling with PostgreSQL and MySQL 2024 - <Packt>
- Oracle ACE Pro 2025 - Oracle
- Oracle Contributor 2026 - Oracle

MyVector Architecture - Vectors

Vectors and Dimensions

Objects Dimensions

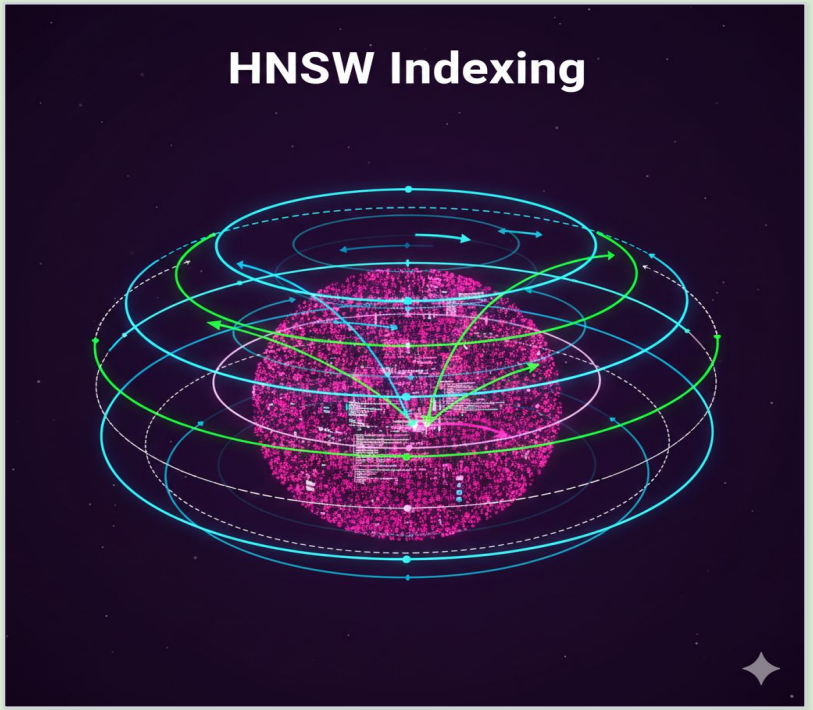
Data Points
Mathematical objects representing magnitude and direction (velocity, force)

When dimensions increase data points increase and they turn into embeddings

Represented as arrays or ordered lists of numbers

MyVector Architecture - HNSW Indexing

Feature	Brute force (kNN)	HNSW (ANN)
Accuracy	100% exact No approximation	~95–99% approximate Tunable recall
Search speed	O(N) — slow Scans every vector	O(log N) — blazing fast Graph traversal
Memory usage	Low Vectors only	High Vectors + graph structure
Scalability	Poor Degrades linearly	Excellent Millions of vectors
Best for	Small datasets, exact recall	Production, scale, low latency



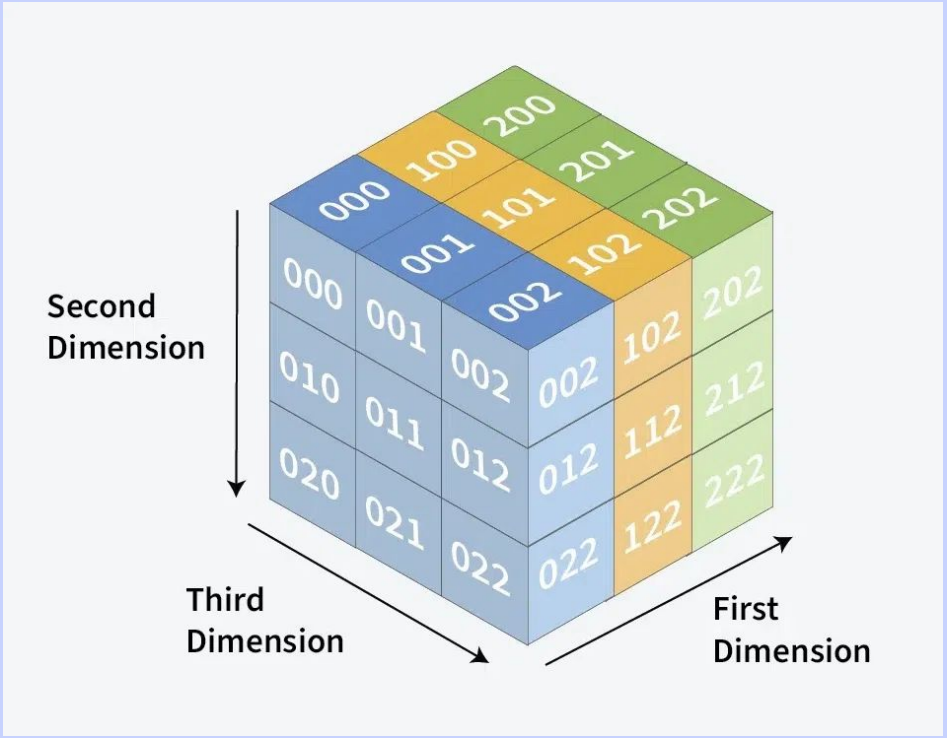
Used by: HNSWlib (Hierarchical Navigable Small World)
Source: https://github.com/nmslib/hnswlib
Purpose: High-performance Approximate Nearest Neighbor (ANN) search

MyVector Architecture - Vectors

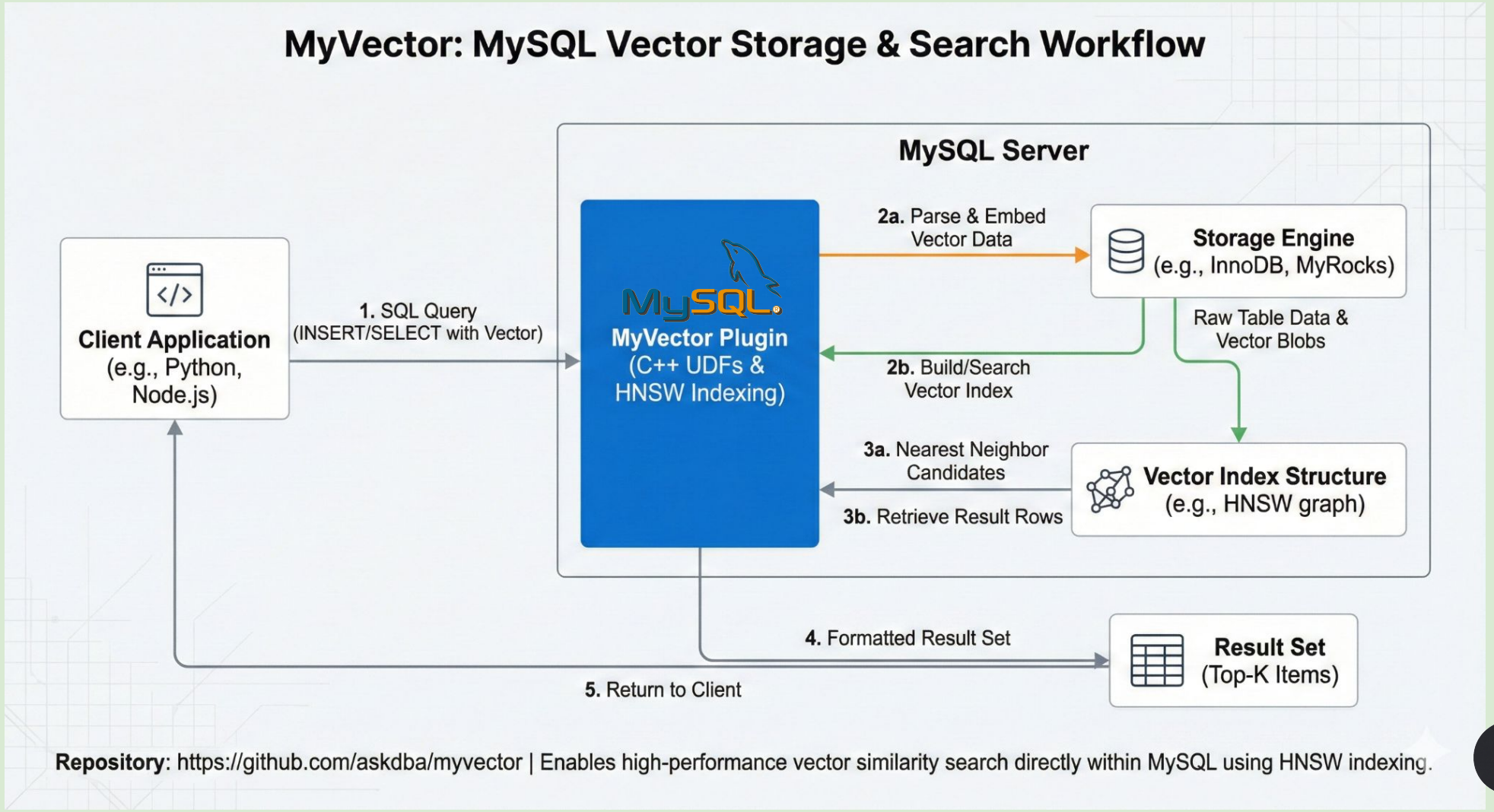
Vector Search
Capture semantic meaning and relationships between words, phrases, or other data.

Pre-Trained
BERT, OpenAI, Word2Vec, CLIP for images

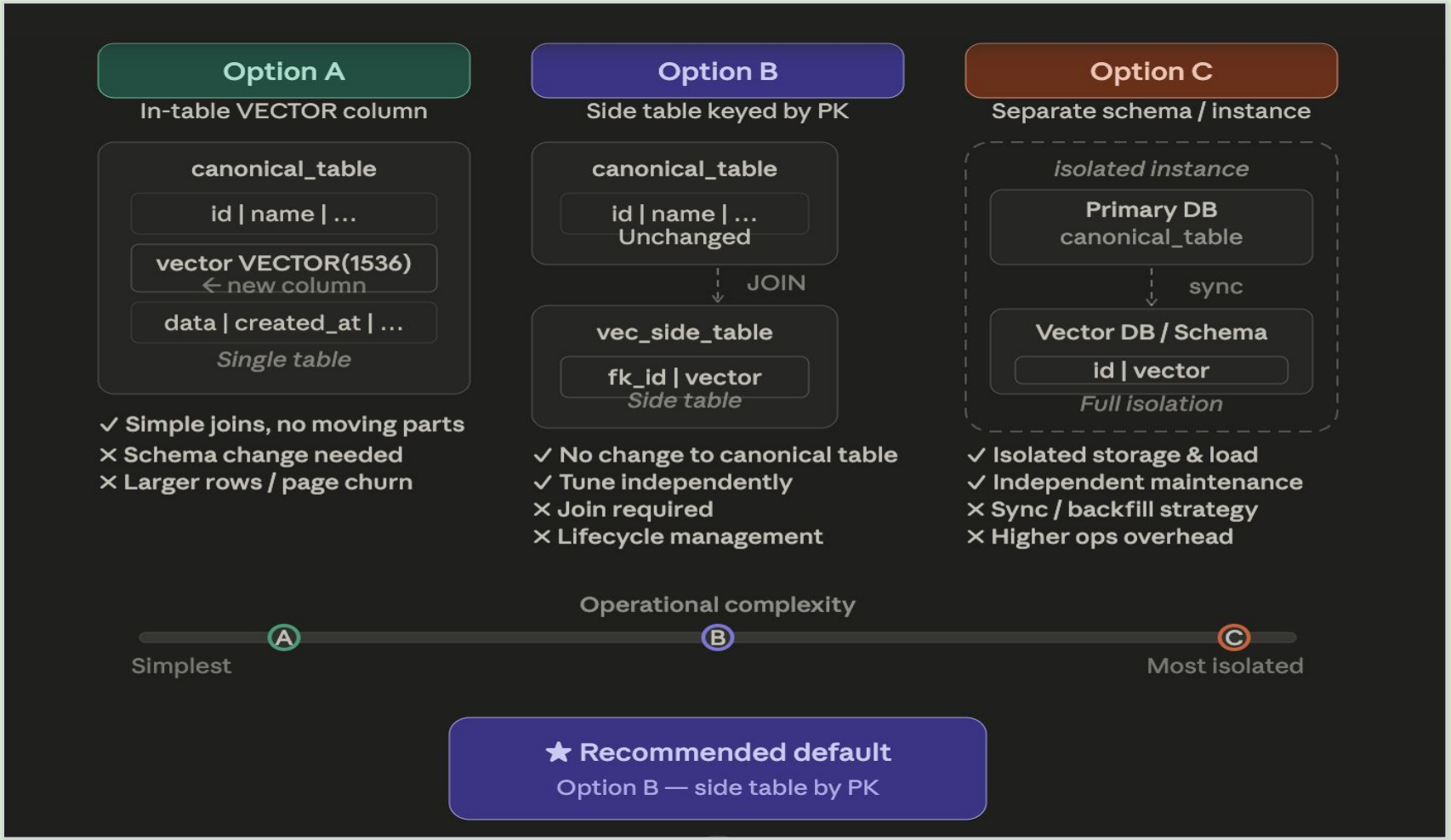
It is a technique that retrieves the most similar items by comparing vector embeddings using distance or similarity metrics in high-dimensional space.



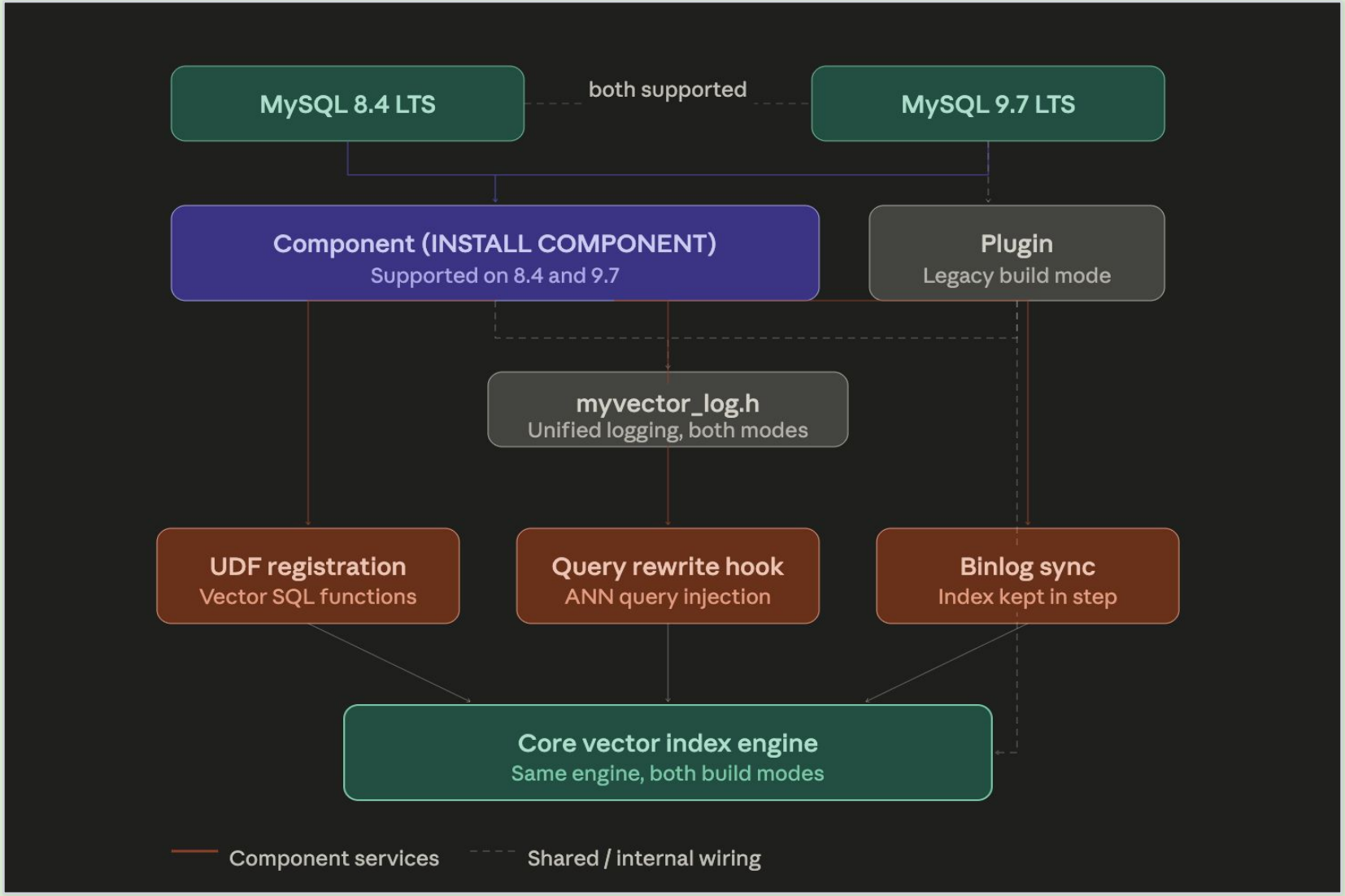
MyVector Architecture



Vector storage options in MySQL



MySQL Component build



MySQL Component build

- You don't need to recompile MySQL or install a custom build. As long as the component .so is compiled against the same MySQL version (which is why the release ships separate binaries for 8.4.8 and 9.7.0), you just:
  - Copy libmyvector_component.so into MySQL's plugin directory ($(mysql_config --plugindir))
  - Run INSTALL COMPONENT 'file://libmyvector_component';

Key takeaways

- MyVector adds MySQL-native vector capability (prototype, evolving quickly).
- Operational complexity can be improved with ProxySQL provides the control plane: classification, routing, isolation, and governance.
- The core promise: AI retrieval without sacrificing MySQL stability.
- Designed for workloads (RAG, runbooks, code search), we want to learn from you.
- What's next? myvectorbench tool

Contact: <alkin.tezuysal@gmail.com> | Repo/Docs: <https://github.com/askdba/myvector>

References:

- GitHub - askdba/mysql-mcp-server: MySQL Server implementation for Model Context Protocol (MCP)
- written in Go.
- GitHub - askdba/myvector: Vector Storage & Search Plugin for MySQL
- The VECTOR Type
- https://askdba.net/2026/05/09/myvector-v1-26-5-component-architecture-arrives/

Q&A