GOMY CODE ©

RELATIONAL DATABASE MANAGEMENT SYSTEM

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PLAN

1. Introduction to Relational Databases and Relational Database Management Systems (RDBMS)
2. Presenting some RDBMS and their functionalities
3. Comparison between the presented RDBMS

INTRODUCTION

A relational database is a digital database based on the relational model of data. A system used to maintain relational databases is a relational database management system (RDBMS). A RDBMS is a type of database management system that stores data in a row-based table structure which connects related data elements. An RDBMS includes functions that maintain the security, accuracy, integrity and consistency of the data. This is different than the file storage used in a DBMS.Many relational database systems have an option of using the SQL (Structured Query Language) for querying and maintaining the database.

LET'S BEGIN!

Are you ready?

MYSQL

MySQL

MySQL is a free and open-source relational database management system (RDBMS) under the terms of the GNU General Public License, and is also available under a variety of proprietary licenses. MySQL was owned and sponsored by the Swedish company MySQL AB, which was bought by Sun Microsystems (now Oracle Corporation). In 2010, when Oracle acquired Sun, Widenius forked the open-source MySQL project to create MariaDB.

PROS

- Free installation
- Simple syntax and mild complexity
- Cloud compatibility

CONS

- Scalability challenges
- Partial open-source support
- Limited compliance with SQL standards

POSTGRESQL

PostgreSQL

PostgreSQL also known as Postgres, is a free and open-source relational database management system (RDBMS) emphasizing extensibility and SQL compliance. It was originally named POSTGRES, referring to its origins as a successor to the Ingres database developed at the University of California, Berkeley. In 1996, the project was renamed to PostgreSQL to reflect its support for SQL. After a review in 2007, the development team decided to keep the name PostgreSQL and the alias Postgres.

PROS

- Great scalability
- Support for custom data types
- Easily-integrated third-party tools
- Open-source and community-driven support

CONS

- Inconsistent documentation
- Lack of reporting and auditing instruments

SQL SERVER

SQL SERVER

Microsoft SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications—which may run either on the same computer or on another computer across a network (including the Internet). Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users.

PROS

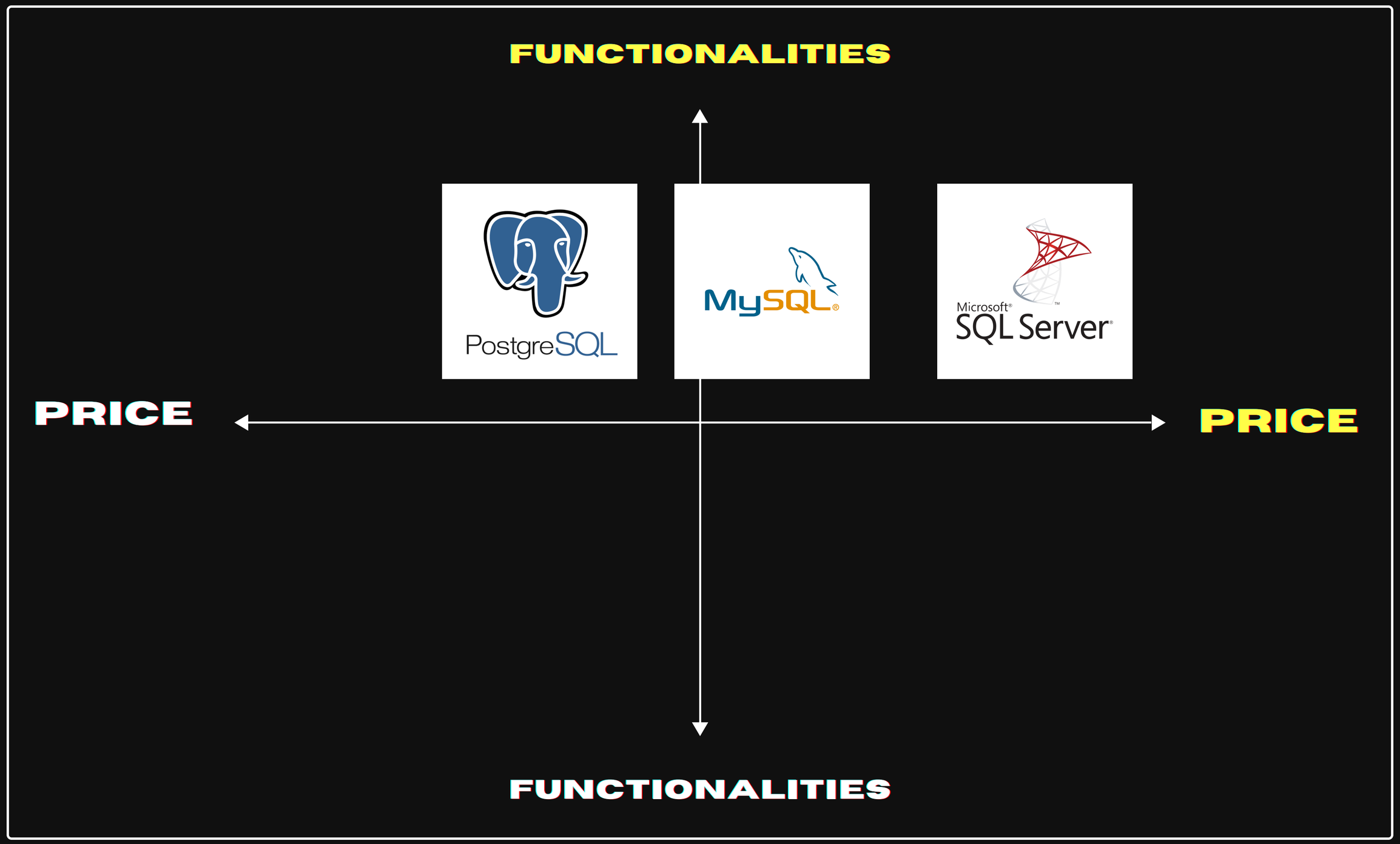
- Variety of versions
- End-to-end business data solution
- Rich documentation and community assistance
- Cloud database support

CONS

- High cost
- Unclear and floating license conditions
- Complicated tuning process

COMPARATIVE ANALYSIS

	Licensing	Documentation	Data Types Supported	Implementation language
MySQL	GNU Generally Public License	✓✓	Structured, Semi-Structured	C , C++
PostgreSQL	Open-Source	✓✓	Structured, Semi-Structured, Unstructured	C
SQL SERVER	Proprietary	✓✓✓	Structured, Semi-Structured, Unstructured	C++


FUNCTIONALITIES
PostgreSQL
MySQL
Microsoft SQL Server
PRICE
PRICE
FUNCTIONALITIES

THANK YOU!

Have a great day ahead.