

MySQL.



- MySQL, pronounced either "My S-Q-L" or "My Sequel," is an open source relational database management system. It is based on the structure query language (SQL), which is used for adding, removing, and modifying information in the database. Standard SQL commands, such as ADD, DROP, INSERT, and UPDATE can be used with MySQL.

PostgreSQL



PostgreSQL

- **PostgreSQL** is a powerful object and open source relational database system.
- PostgreSQL is an advanced, enterprise-class, open source relational database system. PostgreSQL supports SQL (relational) and JSON (non-relational) queries.
- PostgreSQL is a very stable database supported by more than 20 years of development by the open-source community.
- PostgreSQL is used as the back-end database for many web applications as well as mobile and analytics applications.

SQL Server

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SQL Server

- SQL Server is a relational database management system, or RDBMS, developed and marketed by Microsoft.
- Similar to other RDBMS software, SQL Server is built on top of SQL, a standard programming language for interacting with the relational databases. SQL server is tied to Transact-SQL, or T-SQL, the Microsoft's implementation of SQL that adds a set of proprietary programming constructs.
- works exclusively on Windows environment for more than 20 years. In 2016, Microsoft made it available on Linux. SQL Server 2017 became generally available in October 2016 that ran on both Windows and Linux.

SGBDR and their functionalities

- A relational DB management system (RDBMS) is a standard software that is based on the principles of the relational model. An RDBMS offers the following three main functions:
- the definition of data in the form of relationships;
- data manipulation by a declarative language;
- data administration.

A comparison between the three RDBMS

- PostgreSQL is an Object Relational Database Management System (ORDBMS) whereas MySQL is a community driven DBMS system.
- PostgreSQL support modern applications feature like JSON, XML etc. while MySQL only supports JSON.
- Comparing PostgreSQL vs MySQL performance, PostgreSQL performs well when executing complex queries whereas MySQL performs well in OLAP & OLTP systems.
- PostgreSQL is complete ACID compliant while MySQL is only ACID compliant when used with InnoDB and NDB.

- Unlike Postgresql vs MySQL, SQL Server is a commercial solution. It's preferred by companies who are dealing with large traffic workloads on a regular basis. It's also considered to be one of the most compatible systems with Windows services.
- The SQL Server infrastructure includes a lot of additional tools, like reporting services, integration systems, and analytics. For companies that manage multiple teams, these tools make a big difference in day-to-day work.