Difference between MySQL and PostgreSQL

If you need to choose between PostgreSQL and MySQL, you should think about the different situations where each might work better than the other. To compare, PostgreSQL is a feature-rich database that can run complex queries, while MySQL is a simpler, faster, more reliable, and easier-to-setup and administer database.

Developers say MySQL is feature-light and speedy, making it perfect for websites and online transactions, whereas PostgreSQL is better for complicated analytical algorithms. All these and other views are correct. Even though new versions continue to shrink the gap between PostgreSQL and MySQL, in this article we will discuss the differences between MySQL and PostgreSQL and decide which one is the best fit for your project.

What is MySQL?

MySQL is an open-source database platform as well, but it is a large-scale database, one that is widely used, and one that is also the most trusted. Oracle backs MySQL, and it has a lot of third-party tool support (a few of the tools that can be thought of are MySQL Workbench,

dbForge Studio, etc.). It is a well-known open-source relational database management system (RDMS). The data in this table is stored in tables, making CRUD operations simple.

History of MySQL

- MySQL was founded in 1995 by MySQL AB, a Swedish business.
- In 2008, Sun paid one billion dollars for MySQL AB.
- In 2010, Oracle purchased Sun, which included MySQL.
- In 2012, founder Michael Widenius split MySQL into MariaDB under the firm Monty Programme Ab.
- In 2013, MariaDB will mostly replace MySQL in most distributions.
- Monty Programme Ab and SkySQL merged in 2013
- In 2014, SkySQL Ab was renamed MariaDB Corporation.

Why use MySQL?

Some compelling reasons to use MYSQL include the following:

- Supports Master-Slave Replication and Scale-Out
- It provides offload reporting, geographic data distribution, and other features.
- The MyISAM storage engine has a very low overhead when used for read-only applications.
- Memory storage engine support for frequently used tables
- Query Cache for Statements That Are Used Frequently
- You can easily learn and troubleshoot MySQL from various sources, such as blogs, white papers, and books.
- What Kinds of Applications Exist in MySQL?
- MySQL is a partially SQL-compliant database that is suitable for simple web **applications** or any application that requires a simple schema design and data operations performed using simple SQL queries. MySQL is not a good choice for complex applications that handle large amounts of data.

What is PostgreSQL?

PostgreSQL is well-known in the market for its ability to handle complex, high-volume data operations. When compared to other database management systems, PostgreSQL has a few more features and is more extensible. It allows you to define index types, data types, and functional languages and store information in tables and columns. PostgreSQL is a relational database system designed for enterprise use. It is simple to set up and install. It supports SQL and NoSQL databases. It has a fantastic community that is eager to assist you if you are having problems with PostgreSQL.

History of PostgreSQL

- INGRES was created in 1977.
- Postgres was created in 1986 by Michael Stonebraker and his colleagues.
- Real ACID and PL/pgSQL support – 1990
- Postgres95 was released in -1995.
- Postgres95 was re-released as PostgreSQL 6.0 in 1996.
- MVCC, GUC, Join Syntax Controls, and a Procedural Language Loader were added between 1998 and 2001.
- Versions 7.2 to 8.2: Added Schema support, Non-Blocking VACUUM, Roles, and blink (2002–2006)
- PostgreSQL 8.4 was released in 2009.
- In 2010, PostgreSQL 9.0 was released.
- NYCPUG (New York City PostgreSQL User Group) became a member of PgUS (United States PostgreSQL Association) in 2013
- PGconf was organised in 2014

Why use PostgreSQL?

The following are the primary reasons for using PostgreSQL:

- Provides useful features such as table partitioning, point-in-time recovery, transactional DDL, and so on.
- Capability to use third-party Key Stores in a full PKI infrastructure
- Because open-source code is licensed under BSD, developers can modify it without having to contribute back enhancements.
- Independent Software Vendors (ISVs) can redistribute it without fear of being "infected" with an open-source license.
- It is possible to assign users and roles. Object-level permissions
- AES, 3DES, and other data encryption algorithms are supported.

What Kinds of Applications Exist in PostgreSQL?

PostgreSQL is open-source, completely ACID-compliant, enterprise-ready, and user-friendly for developers and DBAs. PostgreSQL is the ideal solution for high-transactional and sophisticated applications in any area, and it can handle a wide range of **web** and mobile application services. PostgreSQL may also be used to conduct complex reporting queries and operations on massive amounts of data, making it an excellent data warehouse.

> ## Conclusion

After comparing the two, we can conclude that MySQL has done an excellent job of improving itself to remain relevant, whereas PostgreSQL requires no licensing. Table inheritance, rule systems, custom data types, and database events are also available. As a result, it outperforms MySQL.