**What is a Relational Database?**

A relational database is a collection of data items with pre-defined relationships between them. These items are organized as a set of tables with columns and rows. Tables are used to hold information about the objects to be represented in the database. Each column in a table holds a certain kind of data and a field stores the actual value of an attribute. The rows in the table represent a collection of related values of one object or entity. Each row in a table could be marked with a unique identifier called a primary key, and rows among multiple tables can be made related using foreign keys. This data can be accessed in many different ways without reorganizing the database tables themselves.

**What is MySQL?**

MySQL is an open source SQL relational database management system that’s developed and supported by Oracle. Discover how Kinsta customers are seeing up to a 200% increase in performance.That’s the short, one sentence answer to the question of “what is MySQL”, but let’s break that down into terms that are a little more human-friendly. A database is just a structured collection of data that’s organized for easy use and retrieval. For a WordPress site, that “data” is stuff like the text of your blog posts, information for all the registered users at your site, autoloaded data, important settings configurations, etc. MySQL is just one popular system that can store and manage that data for you, and it’s an especially popular database solution for WordPress sites.

**What is PostgreSQL?**

PostgreSQL is an advanced, enterprise class open source relational database that supports both SQL (relational) and JSON (non-relational) querying. It is a highly stable database management system, backed by more than 20 years of community development which has contributed to its high levels of resilience, integrity, and correctness. PostgreSQL is used as the primary data store or data warehouse for many web, mobile, geospatial, and analytics applications. The latest major version is PostgreSQL 12. PostgreSQL has a rich history for support of advanced data types, and supports a level of performance optimization that is common across its commercial database counterparts, like Oracle and SQL Server. AWS supports PostgreSQL through a fully managed database service with Amazon Relational Database Service (RDS). Amazon Aurora with PostgreSQL compatibility is also built using PostgreSQL.

**What is SQL Server?**

SQL Server is an application software for Relational Database Management System (RDBMS), from Microsoft, that can be used for creating, maintaining, managing, and implementing the RDBMS systems. It is an extensively used application as it enables multiple users simultaneously to work on the database systems, where users can range from minor office-based machines to huge Internet-based servers. Provisions any variety of SQL programming extending from ANSI SQL (for traditional SQL) through SQL to T-SQL (Transact-SQL) used for advanced relational databases. It is the relational database management system developed by Microsoft back in 1988. It is actually a backend application that allows us to store and process data. In simple terms, it offers us a platform where we can update, change, and manage the data. It is called the relational database management system due to its nature to store the data in tables where the tables store the data about the same entity.

**What are the differences between MySQL, PostgreSQL and SQL SERVER?**

PostgreSQL, MySQL, and SQLite use very similar syntax, with some notable differences highlighted below. Microsoft SQL Server has the greatest contrast in SQL syntax, as well as a wide variety of functions not available in other platforms. The table below highlights some examples of basic differences between SQL platforms.



**Summary**

In terms of popularity, MySQL is way ahead of PostgreSQL and SQLite, but one must consider the use case and features before making it the de-facto choice.Features like strong ACID compliance and concurrency would make PostgreSQL a strong contender. SQLite, on the other hand would excel in embedded and IoT applications where the small footprint of the SQLite library would give it a huge advantage.