

Difference Between SQL and MySQL

www.differencebetween.com

Key Difference - SQL vs MySQL

A [database](#) is a collection of data. There are various types of databases. Relational databases are database types to store data in the form of tables. These tables are related to each other since they use constraints. MySQL is a Relational database management system. The language which use to perform operations on a database is called SQL. The **key difference** between SQL and MySQL is that **SQL is a language to manage data in a relational database and MySQL is an [open source Relational Database management system](#) to manage databases using SQL.**

What is SQL?

Data is valuable for an organization to perform its tasks efficiently and effectively. Thus, it is necessary to store data accurately. A database is used to store data. There are different types of databases. A relational database is one of them. Relational databases consist of tables and data is stored in these tables. Tables consist of rows and columns. A row is a record, and a column is a field. Each data has a specific data type.

A relational database can have multiple tables. These tables are connected using [primary keys and foreign keys](#). The Structured query language is the query language using to store, manage, retrieve data in a relational database. SQL was developed using relational algebra.

SQL can be divided into three subcategories. They are Data Definition Language (DDL), Data Control Language (DCL) and Data Manipulate language (DML). Commands such as create, alter, the drop can be categorized under DDL. Commands like insert, update, delete can be categorized under DML. Grant, revoke belongs to DCL.

What is MySQL?

MySQL is one such open source Relational Database Management System. A [program](#), which defines, construct and manipulate a database is known as Database Management System. The programmer can use SQL queries on MySQL for data storing and retrieval. It provides data administration, data migration, and data protection.



Figure 01: MySQL

MySQL is a fast and easy to use. It is popular database management system for back-end development. It is commonly used with [PHP](#) for [web development](#). Many languages use libraries to connect to MySQL. For example, [Java](#) uses JDBC driver to connect the application to MySQL. It also works on different platforms such as [Linux](#), [Windows](#),

Mac. MySQL client is a client program connect to the server. MySQL-bench provides performance testing tools for the server.

What are the Similarities Between SQL and MySQL?

- Both are related to a relational database.
- Both describe the data type.
- Both can use indexes, stored procedures, views.
- SQL is the foundation language for MySQL.
- Both can use to perform arithmetic operation (+, -, *, /, %)
- Can perform comparison operations. (>, <, >=, <= etc.)
- Can perform logical operations. (and, or, not)
- Contains keys to create relationships among tables. (primary key, foreign key)
- Capable of using an alias.
- Can join tables. (inner join, outer join, left join, right join)
- Can use aggregate functions (min (), max (), count (), sum (), avg ())

What is the Difference Between SQL and MySQL?

SQL vs MySQL	
SQL is a structured query language to manage relational databases.	MySQL is a Relational Database Management System to store, retrieve, modify and administrate a database using SQL.
Language Type	
SQL is a database language.	MySQL is software.
Design Databases	
SQL is a query language.	MySQL provides an integrated tool environment 'MySQL workbench' to design and model databases.
Connectors	
SQL does not provide connectors.	MySQL provides database drivers for the .NET platform, C++, Python, Java to build database applications.

Summary - SQL vs MySQL

The database is used to store logically related data. There various database types. Databases which store text and numbers are traditional databases. Databases which can store images are known as Multimedia databases. Some organizations use Geographical Information Systems for storing geographical images. One common database type is

relational databases. This article discussed the difference between SQL and MySQL. The difference between SQL and MySQL is that SQL is a query language to manage data in a relational database and MySQL is an open source Relational Database management system to manage databases using SQL.

Reference:

1. Point, Tutorials. "SQL Overview." [Tutorials Point](#), 15 Aug. 2017. [Available here](#)
2. Point, Tutorials. "MySQL Introduction." [Tutorials Point](#), 15 Aug. 2017. [Available here](#)
3. "Introduction to DBMS", YouTube, 11 Jan. 2015. [Available here](#)
4. "SQL Crash Course - Beginner to Intermediate" *TechGuyWeb*. YouTube, YouTube, 29 Mar. 2016. [Available here](#)

Image Courtesy:

1. 'Database-mysql' By RRZEicons - Own work, ([CC BY-SA 3.0](#)) via [Commons Wikimedia](#)

How to Cite this Article?

APA: Difference Between SQL and MySQL.(2017 December 21). Retrieved (date), from [http://differencebetween.com/difference-between-sql-and-vs-mysql /](http://differencebetween.com/difference-between-sql-and-vs-mysql/)

MLA: "Difference Between SQL and MySQL" Difference Between.Com. 21 December 2017. Web.

Chicago: "Difference Between SQL and MySQL1." Difference Between.Com. [http://differencebetween.com/difference-between-sql-and-vs-mysql /](http://differencebetween.com/difference-between-sql-and-vs-mysql/) accessed (accessed [date]).



Copyright © 2010-2017 Difference Between. All rights reserved