**Similarity:**

* Widely used enterprise database system

Supported Platforms:

* Both supports multiple programming languages e.g. Java, PHP, C++, Python, Ruby, VB, Delphi, Go.

**Difference:**

Supported platforms:

* MS SQL Server originally meant for Windows operating system only, but they made the decision to make the availability on Red Hat Enterprise Linux (7.3, 7.4, 7.5, 7..6), SUSE Linux Enterprise Server (v12 SP2), Ubuntu, and Mac OS (Docker) [1].
* MS SQL Server hence have distinct platforms they can run onto
* MySQL supports various platforms e.g. Oracle Linux 8, Solaris 11, Ubuntu,

Programming Language

* MySQL server support additional programming languages like Perl, Scheme, Tcl, Haskel, and Eiffel

Filtering Process

* MySQL allows users to filter table, rows and users in a number of ways, but requires users to filter out the tables, rows or users by individual. Meaning multiple queries are required for different database table.
* MS Server enables developers to do row-based data filtering (enables through across database), and the filtered data is stored in a separate distribution database. (allows programmers to filter multiple rows without considering the number of databases)

Backup

* MySQL need to extract all data as SQL statements in order to backup (blocks the database while backing up data to protect corruption while switching one version or edition of MySQL to another). But it’s time-consuming.
* MS SQL Server does not blocks the database

Query Execution

* MySQL does not allow users to kill or cancel a query while running (allows if the entire process is killed)
* MS SQL Server is allowed

Choice [2]

* MySQL is designed with features complement the needs of modern web applications
* Security: MySQL provides the powerful mechanisms for ensuing only authorized users have entry to the database. With the ability to block users down to the client machine level.

Source:

<https://medium.com/@mindfiresolutions.usa/a-comparison-between-mysql-vs-ms-sql-server-58b537e474be>

[1] <https://docs.microsoft.com/en-us/sql/linux/sql-server-linux-setup?view=sql-server-2017#supportedplatforms>

[2] <http://www.oracle.com/us/products/mysql/mysql-wp-top10-webbased-apps-461054.pdf>