Comparison of Relational Database Management Systems

	MySQL	**PostgreSQL**	**SQL Server**
Written In	C++	C	??
Why	Most Popular SQL DB. Used by Microsoft, Google, Twitter, Amazon, Netflix.	Supports a lot of datatypes including schemaless data. Tried & tested.	A commercial Solution. Used by companies that have to handle very heavy traffic loads. Very compatible with Windows. Has reporting services, integration systems & analytics.
Row Updates	Row updates can be reversed.	All updated rows have unique IDs. Results in a larger DB.	Has 3 engines for handling row updates. Most flexibility and efficiency in handling updated rows and columns.
Defragmentation	Allows defragmenting tables during backup, index creation and with OPTIMIZE TABLE command.	It allows all tables of a particular data layer to be scanned. It finds empty rows and deletes unnecessary elements. This process is very CPU intensive.	Allows a Garbage Collector to remove unnecessary rows and columns. More efficient than PostgreSQL.
Temporary Tables	Limited Functionality. Can’t set variables in temp tables or create global templates. A temporary table can be referred to only once.	Temporary tables can be divided into local and global ones. They can all be configured with flexible variables.	Offers rich functionality for temporary table management. Local and global temporary variable tables can be created. We can create and oversee variables.

Indexes	Search using indexes isn't flexible. Multiple indexes can't be searched in a single query.	Multiple indexes can be looked up in a single search. More multi-column indexes (32 columns).	RIch Automated functionality for index management.
Memory Optimized Tables	Supports it, but can't participate in transactions in it. Has poor security. Such tables are only used for READS.	No support	Memory Optimized Tables can participate in transactions just like ordinary tables.
JSON Support	JSON files are supported but not indexed. JSON File functionality is limited. Geospatial data is supported but not	Supports indexing & partial updates of JSON files. Supports many more data types like multi-dimensional arrays and geospatial data.	Full support for JSON files, handling, updates and maintenance. Rich support for geospatial data.
Replication	Allows partitioning DBs with several hashing nodes.	Allows LIST and RANGE partitions where the partition INDEX is created manually.	Supports RANGE partitioning.

REFERENCES

[SQL Server vs MySQL vs Postgresql: Which One Is the Best]