Name	Microsoft SQL Server X	MySQL X	PostgreSQL X
Description	Microsofts flagship relational DBMS	Widely used open source RDBMS	Widely used open source RDBMS ℹ
Primary database model	Relational DBMS	Relational DBMS ℹ	Relational DBMS ℹ
Secondary database models	Document store Graph DBMS Spatial DBMS	Document store Spatial DBMS	Document store Spatial DBMS
DB-Engines Ranking ℹ Trend Chart	Scor e 1015.30 Rank # 3 Overall # 3 Relation al DBMS	Sco re Ran k 1254.83 # 2 Overall # 2 Relatio nal DBMS	Scor e 549.29 Rank # 4 Overall # 4 Relation al DBMS
Website	www.microsoft.com/en-us/sql-server	www.mysql.com	www.postgresql.org
Technical documentation	docs.microsoft.com/en-US/sql/-sql-server	dev.mysql.com/doc	www.postgresql.org/docs
Developer	Microsoft	Oracle ℹ	PostgreSQL Global Development Group ℹ
Initial release	1989	1995	1989 ℹ
Current release	SQL Server 2019, November 2019	8.0.23 , January 2021	13.2 , February 2021
License ℹ	commercial ℹ	Open Source ℹ	Open Source ℹ
Cloud-based only ℹ	no	no	no
DBaaS offerings (sponsored links) ℹ		ScaleGrid for MySQL: Fully managed MySQL hosting	ScaleGrid for PostgreSQL: Fully managed PostgreSQL

		on AWS, Azure and DigitalOcean with high availability and SSH access on the #1 multi-cloud DBaaS.	hosting on AWS, Azure and DigitalOcean with high availability and SSH access on the #1 multi-cloud DBaaS.
Implementation language	C++	C and C++	C
Server operating systems	Linux Windows	FreeBSD Linux OS X Solaris Windows	FreeBSD HP-UX Linux NetBSD OpenBSD OS X Solaris Unix Windows
Data scheme	yes	yes	yes
Typing ℹ️	yes	yes	yes
XML support ℹ️	yes	yes	yes ℹ️
Secondary indexes	yes	yes	yes
SQL ℹ️	yes	yes ℹ️	yes ℹ️
APIs and other access methods	ADO.NET JDBC ODBC OLE DB Tabular Data Stream (TDS)	ADO.NET JDBC ODBC Proprietary native API	ADO.NET JDBC native C library ODBC streaming API for large objects
Supported programming languages	C# C++ Delphi Go Java JavaScript (Node.js) PHP	Ada C C# C++ D Delphi Eiffel Erlang	.Net C C++ Delphi Java ℹ️ JavaScript (Node.js) Perl

	Python R Ruby Visual Basic	Haskell Java JavaScript (Node.js) Objective-C OCaml Perl PHP Python Ruby Scheme Tcl	PHP Python Tcl
Server-side scripts ℹ️	Transact SQL, .NET languages, R, Python and (with SQL Server 2019) Java	yes ℹ️	user defined functions ℹ️
Triggers	yes	yes	yes
Partitioning methods ℹ️	tables can be distributed across several files (horizontal partitioning); sharding through federation	horizontal partitioning, sharding with MySQL Cluster or MySQL Fabric	partitioning by range, list and (since PostgreSQL 11) by hash
Replication methods ℹ️	yes, but depending on the SQL-Server Edition	Multi-source replication Source-replica replication	Source-replica replication ℹ️
MapReduce ℹ️	no	no	no
Consistency concepts ℹ️	Immediate Consistency	Immediate Consistency	Immediate Consistency
Foreign keys ℹ️	yes	yes ℹ️	yes
Transaction concepts ℹ️	ACID	ACID ℹ️	ACID
Concurrency ℹ️	yes	yes ℹ️	yes
Durability ℹ️	yes	yes	yes

In-memory capabilities ℹ	yes	yes	no
User concepts ℹ	fine grained access rights according to SQL-standard	Users with fine-grained authorization concept ℹ	fine grained access rights according to SQL-standard