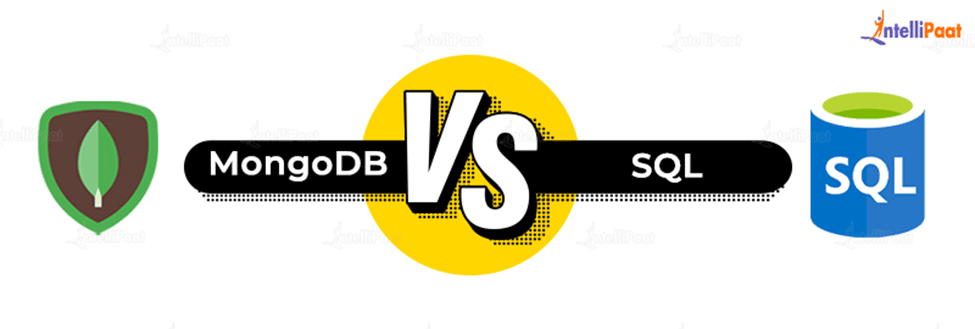
**SQL vs NoSQL Databases**

A Database is a Relational Database and uses structured data. It typically uses the Structured Query Language and implements storage in the standardized Information Storage Language. Thus, a SQL Database offers great accessibility and consistency in terms of storage and query handling.

NoSQL Databases such as MongoDB, on the other hand, are Non-relational and utilize unstructured data to be able to store and process non-similar data sets that are associated with each other.

Thus, NoSQL Databases offers fewer restrictions and more flexibility with the use of dissimilar fields within a collection. However, one must have a better coding proficiency to be able to implement the same.

**MongoDB vs SQL**



**MongoDB**



MongoDB is an open-source, cross-platform document-oriented database application that is freely accessible. As a NoSQL database, MongoDB employs schema-less documents resembling JSON for data representation. It offers a robust framework for storing and retrieving data, providing a flexible and scalable approach to database management.

Established in 2007, MongoDB Inc. introduced an innovative approach to database creation. The term “MongoDB,” derived from “humongous,” was coined to address the challenge of storing vast amounts of data required for scalable use cases.

The exponential growth of digital services and websites necessitated a more adaptable database management system with enhanced functionality.

**SQL**



A relational database management system is [SQL](https://intellipaat.com/blog/tutorial/sql-tutorial/introduction-to-sql/) Server (RDBMS). It is also referred to as [Microsoft SQL Server](https://intellipaat.com/blog/what-is-sql-server/) or MSSQL on occasion. Microsoft created SQL Server, which was first made available on April 24, 1989.

On November 4, 2019, SQL Server 2019’s stable release was made available. Programming languages like C and C++ are used to create MSSQL.

Based on E. F. Codd’s relational paradigm, SQL Server was created. Data is kept in tables in RDBMS, and linkages between tables are preserved.

Data is arranged in rows and columns in tables. Each row in the table represents an entry or a record, while each column represents a certain field or feature.

**Difference between MongoDB and SQL**

|  |  |
| --- | --- |
| MongoDB | SQL |
| MongoDB is a document-based, non-relational database management system. Another name for it is an object-based system. | A table-based system is MySQL (or open-source relational database). The table-based architecture, which is regarded as a SQL database, is the data query structure for search. |
| Every record in MongoDB is kept as a separate document. | Each individual entry is saved as a “row” in a database in MySQL. |
| Documents from a specific class or group are kept in a “collection”. | Rows (also known as records) of a similar sort are kept in a “table”. |
| MongoDB supports out-of-the-box replication and sharding and was built with high availability and scalability in mind. | Although the MySQL architecture does not support effective replication and sharding, one can access related data via joins in MySQL, which reduces duplication. |
| It was created by MongoDB Inc. and was made available on February 11, 2009. | On April 24, 1989, Microsoft Corporation first made this technology available. |

**MongoDB vs SQL: Storage of Data**

Data storage is the primary function of a database and how your data is stored becomes significant when fetching and querying is considered.

In MongoDB, all individual records are stored as documents which are collections of fields with a dynamic schema. Here, each collection need not have the same set of fields which makes it more flexible than RDBMS.

In SQL Databases, records are stored in rows within a table which limits dynamic classification and storage of hierarchical data. However, SQL Relational data can be matched using common characteristics simplistically which can be beneficial depending upon your use case.

