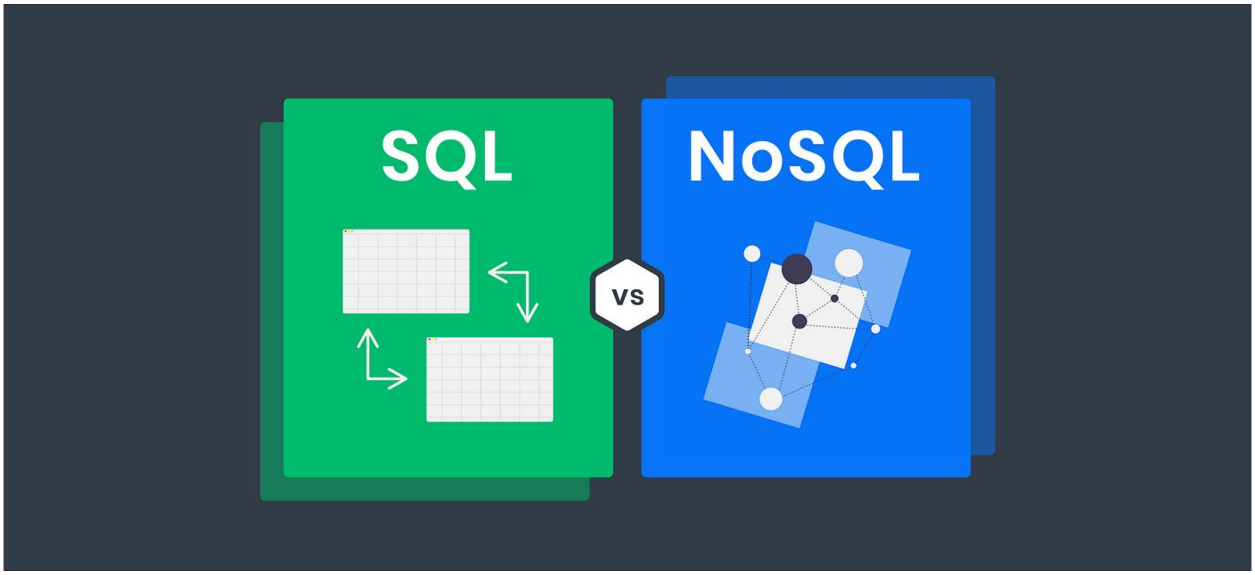
Difference between SQL and NoSQL



In the event of selecting a modern database, the difficulty is to choose from the relational and non-relational database. Here, in this article, we are contemplating the differences between SQL and NoSQL. One of these databases is relational, and the other is non-relational. We compare the SQL and NoSQL databases, here. However, prior to understanding the NoSQL and SQL differences, users are advised to have a look at them individually.

The databases that are viable options are given below. They are:

- SQL
- NoSQL

What is SQL?

Structured Query Language or SQL is a table-based relational database. By applying the SQL programming language, users can now search, insert, modify and delete data from the database records. This in no way limits the use of SQL. The services it supports are also not limited to the optimization or administration of the database.

What is NoSQL?

NoSQL is a non-relational database or DMS without any fixed schema, while it is easy to scale. Distributed data stores that require a large quantity of data storage needs have a call for NoSQL. Big Data and real-time web apps make use of NoSQL.

What is the Difference between SQL and NoSQL?

The databases in SQL are table-based, while the databases in NoSQL are document, key-value, graph, or wide-column stores. SQL databases suit multi-row transactions, while NoSQL is better for unstructured data like documents or JSON. Learn more about what is the difference between SQL and NoSQL from the table.

Difference between SQL and NoSQL

SQL	NoSQL
SQL is also pronounced as “S-Q-L” or as “See-Quel” and is primarily known to be a Relational Database	NoSQL is a distributed or Non-relational Database
Use of SQL queries and syntax to analyse and get further data insights. Used for OLAP systems	Apply different types of database technologies
Database, here is in table format	NoSQL databases are document based with key-value pairs and graph databases.
They are scalable vertically	These are horizontally scalable
Schema used is pre-defined	Dynamic schema is used for unstructured or disorganized data
SQL uses specialized DB hardware to enhance performance	NoSQL uses commodity hardware
Total focus on ACID (Atomicity, Consistency, Isolation and Durability) properties	Makes use of the Brewer’s CAP theorem (Consistency, Availability and Partition Tolerance)
Examples are Sqlite, MySql, Oracle, Postgres and MS-SQL	Examples are Cassandra, MongoDB, BigTable, Redis, RavenDb, Hbase, Neo4j and CouchDb