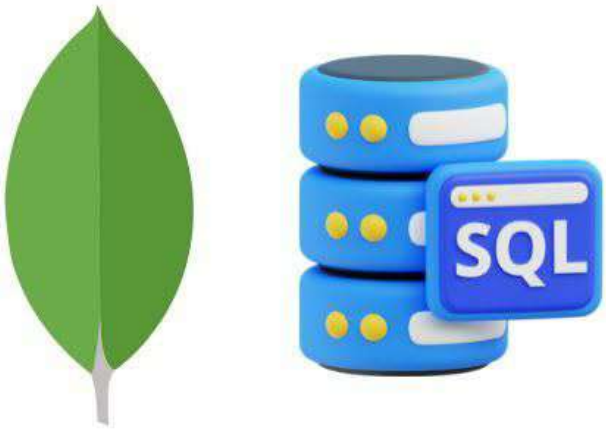
SQL vs MongoDB



SQL

SQL (Structured Query Language) is a traditional Relational database management system (RDBMS).

MongoDB is a document-oriented NoSQL database.

MongoDB

SQL

SQL uses a fixed schema, where the structure of the tables must be defined before data can be inserted.

MongoDB uses a dynamic schema, where documents can have different fields.

MongoDB

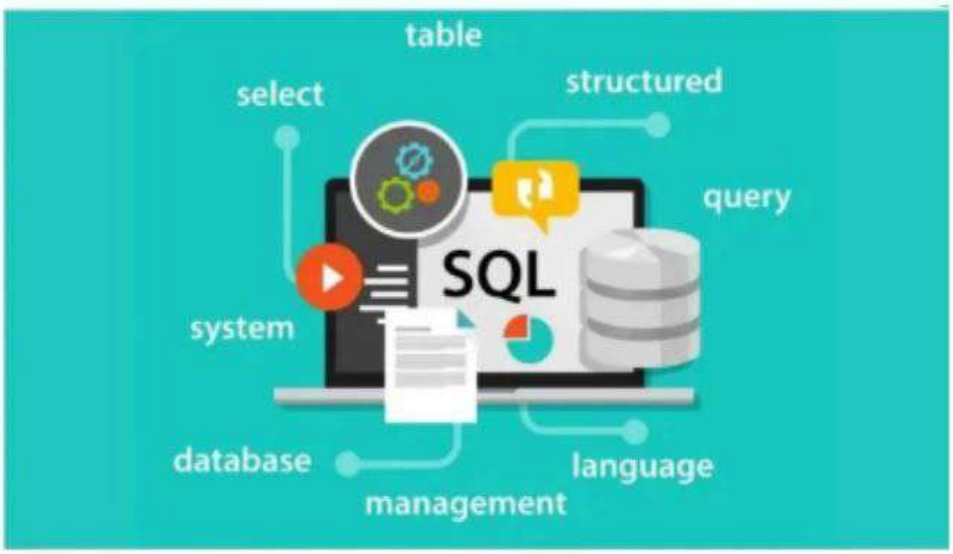


table
select
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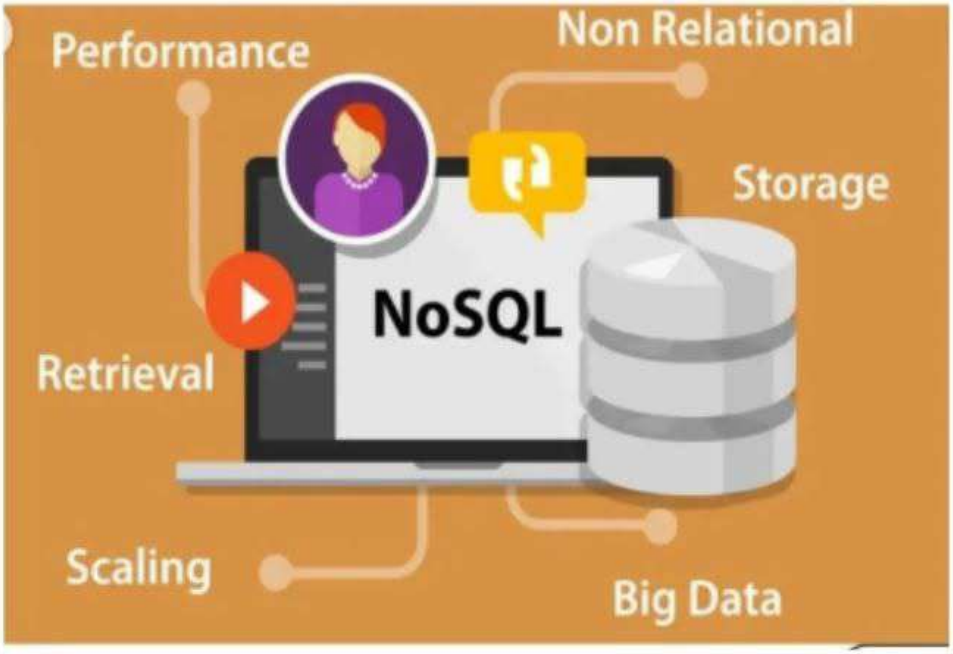
query
SQL
system
database
language
management


Performance
Non Relational
Storage
NoSQL
Retrieval
Scaling
Big Data

SQL

SQL uses a declarative query language.

MongoDB uses a more expressive query language based on JSON.

MongoDB

SQL

SQL databases follow ACID properties (Atomicity, Consistency, Isolation and Durability).

NoSQL database follows the Brewers CAP theorem (Consistency, Availability and Partition tolerance).

MongoDB

SQL

In SQL, data is stored in tables with rows and columns.

In MongoDB, data is stored in collections of JSON-like documents.

MongoDB

SQL

SQL is used in more traditional business applications.

MongoDB is often used in big data and real-time web applications

MongoDB

SQL

SQL is optimized for complex joins and transactions.

MongoDB is optimized for scalability and high performance

MongoDB

SQL

A great choice if you have structured data and need a traditional relational database.

An ideal choice if you have unstructured and/or structured data with the potential for rapid growth.

MongoDB