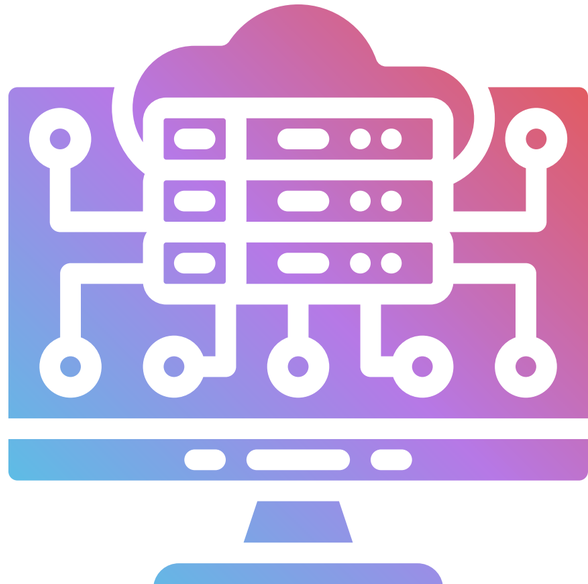
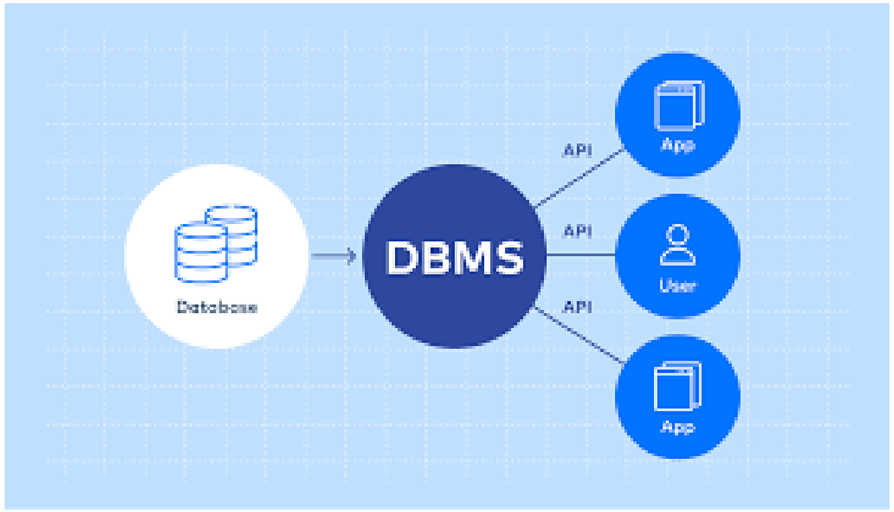
SQL vs NoSQL

MongoDB VS SQL



What Is a Database?

A database is an organized collection of structured information, or data, typically stored electronically in a computer system. A database is usually controlled by a database management system (DBMS). Together, the data and the DBMS, along with the applications that are associated with them, are referred to as a database system, often shortened to just database.



What is a NoSQL database?

NoSQL, also referred to as “not only SQL”, “non-SQL”, is an approach to database design that enables the storage and querying of data outside the traditional structures found in relational databases. While it can still store data found within relational database management systems (RDBMS), it just stores it differently compared to an RDBMS.MongoDB one of the most popular NoSQL database systems

MongoDB

- By far the most popular NoSQL database, and for good reason
- Free to use
- Dynamic schema
- Horizontally scalable
- Excellent performance with simple queries
- Add new columns and fields without impacting your existing rows or application performance
- Works best for companies going through rapid growth stages or those with a lot of unstructured data

What Is SQL Database?

SQL is a standard language for accessing and manipulating databases.

- SQL stands for Structured Query Language
- SQL lets you access and manipulate databases
- SQL became a standard of the American National Standards Institute (ANSI) in 1986, and of the International Organization for Standardization (ISO) in 1987

What Can SQL do?

- SQL can execute queries against a database
- SQL can retrieve data from a database
- SQL can insert records in a database
- SQL can update records in a database
- SQL can delete records from a database
- SQL can create new databases
- SQL can create new tables in a database

	MongoDB	MySQL
Paradigm	• NoSQL, supports unstructured data	• SQL, supports structured data with schemas
Data Storage	• Collections containing JSON documents	• Tables with rows and columns
Relationships	• No support for table relationships	• Supports relationships with foreign keys and primary keys
Scalability	• Supports horizontal scaling (sharding)	• Supports vertical scaling
Schema	• No predefined schema, dynamic structure	• Predefined schema required for data structure