Introduction to mongoDB

What is mongoDB

MongoDB, the most popular NoSQL database, is an open-source document -oriented database. The term 'NoSQL' Means 'non-relational'. It means that MongoDB isn't based on the table-like relational database structure but provides an altogether different mechanism for storage and retrieval of data. This format of storage is called BSON (similar to JSON format)

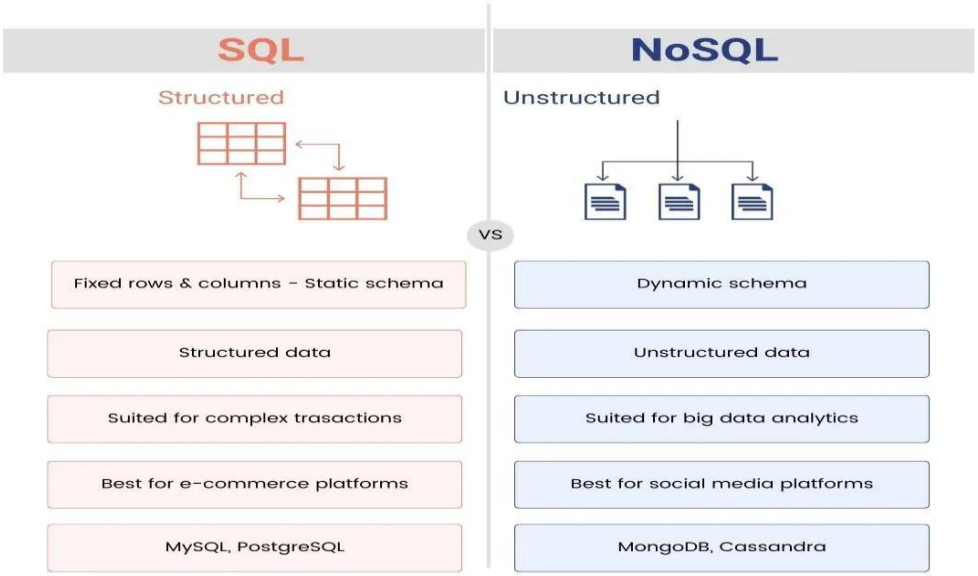
SQL:

SQL databases store data in tabular format. This data is stored in a predefined data model which is not very much flexible for today's real-world highly growing applications. Modern applications are more networked, social and interactive than ever. Applications are storing more and more data and are accessing it at higher rates.

Structured Query Language (SQL) is widely used for Relational Database Management Systems (RDBMS). It allows you to interact with data in the database, performing tasks like creating databases, updating data, altering tables, and defining user rights.

NO SQL:

NoSQL databases (aka "not only SQL") are non-tabular databases and store data differently than relational tables. NoSQL databases come in a variety of types based on their data model. The main types are document, key-value, wide-column, and graph. They provide flexible schemas and scale easily with large amounts of data and high user loads.



Language Support by MongoDB MongoDB currently provides official driver support for all popular programming languages like C, C++, Rust, C#, Java, Node.js, Perl, PHP, Python, Ruby, Scala, Go, and Erlang.

Applications where MongoDB is commonly used:

1. Content Management Systems (CMS)
2. Real-time Analytics
3. Mobile Apps
4. Internet of Things (IoT)
5. E-commerce Platforms
6. Big Data Applications

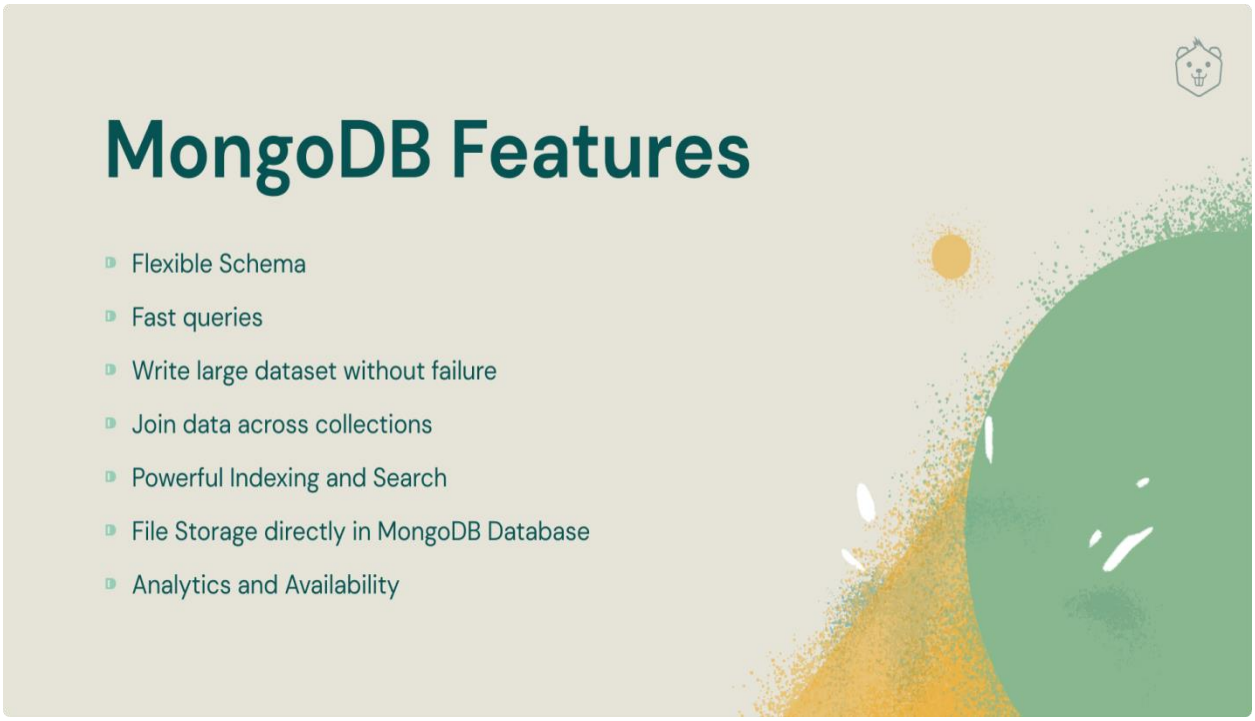
Where do we use MongoDB?

MongoDB is preferred over RDBMS in the following scenarios:

Big Data: If you have huge amount of data to be stored in tables, think of MongoDB before RDBMS databases. MongoDB has built-in solution for partitioning and sharding your database.

Unstable Schema: Adding a new column in RDBMS is hard whereas MongoDB is schema-less. Adding a new field does not effect old documents and will be very easy.

Distributed data: Since multiple copies of data are stored across different servers, recovery of data is instant and safe even if there is a hardware failure.



Database:

A **database** is an organized collection of data stored in a computer system and usually controlled by a database management system (DBMS). The data in common databases is modeled in tables, making querying and processing efficient. Structured query language (SQL) is commonly used for data querying and writing.

Naming Restriction for Database:

Before creating a database you should first learn about the naming restrictions for databases:

In MongoDB, the names of the database are case insensitive, but you must always remember that the database names cannot differ only by the case of the characters.

How to install mongodb and Here the link

https://youtu.be/PHXhuc8MwRw