**MongoDB**

**Table of content:**

* **What is MongoDB**
* **What is document oriented database**
* **What is NoSQL database**
* **What are the features of MongoDB**
* **What are the advantages & disadvantages of MongoDB**

**What is MongoDB**:-

MongoDB is a NoSQL, Open source, document-oriented database that provides high performance, high-availability and easy to scale. In MongoDB the data will be stored as documents inside a collection instaed of columns and rows like relational database. And it is written in C++.

Today’s applications require some features like big data, faster development, easier deployment and MongoDB fullfills all these reqirement and that is the reason to build MongoDB.

**Related Question**

1. **What is MongoDB written in:-**

MongoDB is an open-source, NoSQL database written in C++. Along with C++ MongoDB also supports other languages like C, Go, Javascript, Python, Node.js, Perl, PHP, Ruby etc.

1. **Where mongodb should be used:-**

MongoDB is a widely used database across large scale applications.

* Big and complex data
* Mobile and social infrastructure
* User data management
* Data hub

**What is document oriented database:**

It is the type of database in which the data will be stored in a document form(Indexes) instaed of tables and rows.

MongoDB is a document based data model which stores all data as documents instead of tables format and because of this feature mongodb is the best NoSQL database. The document model of mongodb allows developers to easier access to data rather than searching for it in multiple tables.

* **Why is MongoDB called a document oriented database?**

MongoDB stores data as documents instead of tabular forms(as in SQL), that's why document oriented database.

**example:**

FirstName="John",

LastName="Marriot",

Spouse=[{Name:"Adam"}].

FirstName="John",

LastName="Wick"

The above example shows two different documents(separated by **"."**).

storing data in this manner is known as document oriented database.

* **Is Mongo a relational DB?**

No. Mongodb is a non-relational, document oriented databse management system and uses documents for the storage and retrieval of data.

* **What is meant by document oriented database?**

Document oriented database is one of the type of non-relational ( NoSQL) database. A document oriented database is designed for storing and retrieving data from the documents instead of tables and rows like other relational databases.

* **What is scalability in MongoDB?**

Scalability is the ability of a software or hardware to continue to work as it is when there is a increase of workload or on market demands. In mongodb, scalability is achieved by the process called sharding which distributes data over multiple machines by which the load on the machine will be reduced and helps to backup the data when there is a system failure. Horizontal sharding can be done by using sharding.

* **Why to use MongoDB over SQL?**

MongoDB provides some features which makes it easier to use mongodb over sql. Some of those are stated below:

1. MongoDB is a schema less- in this document data model one collection holds different documents which provides faster development because of its nature of document oriented model which makes it simple for developers to learn and use. Whereas SQL stores data in a multiple tables.
2. In MongoDB, the data will automatically get replicates to other nodes for high availability and in case of any system failure the data will be backup completely. While MySQL replicates data on to another nodes making it complex to get data back.
3. MongoDB is a NoSQL database that stores data as documents and it is easy to access data from one document. Whereas MySQL is a relational database management system that stores data in multiple tables, which makes it complicated to merge data from these multiple tables.
4. There are no complex joins in MongoDB and it is extremely faster than Sql.
5. It is easy to scale.

* **Why MongoDB is used?**

1. MongoDB is the most commonly used document oriented database, which changed the concept of tables and rows from SQL databases which makes the mongodb much more flexible and model based database.
2. The main advantage to use mongodb is it deals with large volume of data(complex data) with a high performance.
3. Also MongoDB is easy to install and implement.
4. Mongodb supports Indexing on any attribute.
5. The auto-sharding feature is very useful in mongodb.

* **What makes MongoDB the best**?

More than any other NoSQL database and more than any other relational database, MongoDB’s document oriented data model makes it easy to use, add or change fields etc. MongoDB is highly scalable ,gives high performance, deals with the complex data makes it the best.

The auto-sharding feature makes it very useful.

MongoDB supports indexing on any attribute.

* **What are the disadvantages of MongoDB?**

MongoDB have few disadvantages which are given below:

1. Limited data size

The documents in mongodb can have document size not more than 16MB.

1. MongoDB does not support Joins.
2. MongoDB requires high memory for data storage.

* **What language does MongoDB use?**

Relational database like MySQL uses structured query language(SQL) for accessing data. Whereas MongoDB uses the MongoDB query language(MQL) which is easy to use for developers.

**What is MongoDB NoSQL database?**

Mainly there are three types of databases, mentioned below:

* RDBMS(Relational Database Management System)
* OLAP(Online Analytical Processing)
* NoSQL

**NoSQL database:**

MongoDB is a NoSQL type of database.This databse does not use tables for storing data and is generally used to store big data and real-time web application.

* **Why MongoDB is known as best NoSQL database?**

MongoDB is one of the most popular NoSQL database today. It provides some new features like Aggregation, Sharding etc. Also mongodb supports BSON (Binary JSON) which stores variety of data types. The document model of mongodb helps to deal with big complex data problems by reducing the data storage complexity.

* **MongoDB can be categorized as what type of NoSQL DB**

MongoDB is a document based database. The data in this type of database can be represented as documents. And the combined term for documents is known as Collection.

* **Why MongoDB is known as best NoSQL database?**

In today’s world of databases MongoDB is one of the best database. It is an open source, document oriented data model. And this document data model is very useful in solving the large complex data problems by storing all data in a document. It also supports some new features which are very useful like aggregation, sharding, replication etc.

* **What is MongoDB good for?**

MongoDB is a document oriented NoSQL database model used for large volume data storage. It uses documents to store data instead of using tables and rows like the relational databases. It makes use of collections and documents. Its also great to use when the data structure is going to evolve over some time period, as this data model will allow to update the data whenever there is need.

* **What was the need to build MongoDB although there were many databases?**

The purpose of building MongoDB is:

* Easy scalability
* High performance
* High availability
* Develop faster
* Deploy easier

**What are the Features of MongoDB**

**1.**Support ad hoc queries

In MongoDB, you can search by field,range query and it also supports regular expression searches.

**2.**Indexing

You can index any field in a document.

**3.**Duplication of data

In mongoDB, data can run over multiple servers. It helps to keep the system up & also keep in running condition in case of hardware failure.

**4.**It supports the feature called Replication.

**5.**It provides high performance.

**6.**Stores files of any size easily without complicating your stack.

**7.**Supports map reduce and aggregation tools.

8. Load balancing.

**Advantages of MongoDB:**

1.It is a schema less database.(As MongoDB is a document database it can store different documents in one collection).

2.It is very easy to scale.

3.In MongoDB the data is fast accessible, as it uses internal memory for storing working sets.

4. There are no complex joins in mongodb.

**Some added features:**

* Easy to use
* Light weight
* Faster than RDBMS

**What are the disadvantages of MongoDB**

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