

MongoDB & MEAN Stack

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- **MongoDB Basics**
- **Walkthrough**
- **The MEAN Stack app**

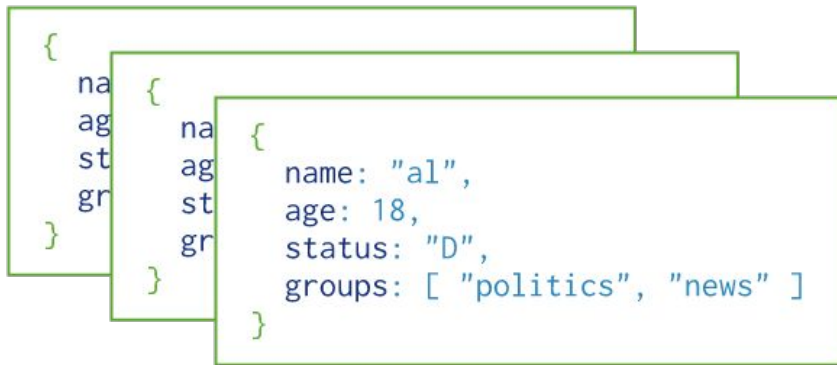


What is MongoDB?

A NoSQL database that stores "Documents" in "Collections"

(instead of "Records" in "Tables" in SQL)

BSON documents => A binary representation of JSON documents



Collection



NoSQL vs SQL

[More Detailed Differences =>](#)

NoSQL	SQL
MongoDB	MySQL
No Data Schema	Strict Data Schema
Less Focused On Relations	Relations is a core feature
“Independent Documents”	Records are Related
Logs, Orders, Chat Messages	Contacts, Social Networks, Dealership :)



Why NoSQL(MongoDB) ?

For database designer:

- Varied Structure

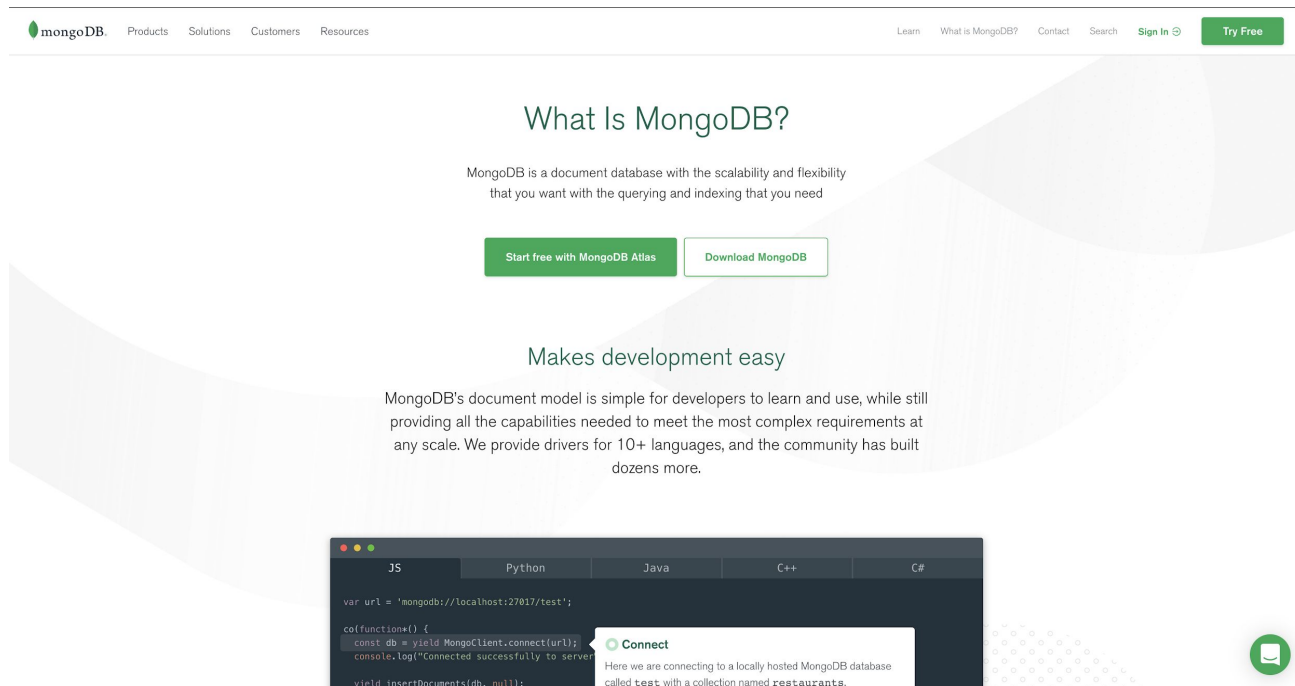
For Software Developer:

- Large Throughput
- Easy to work with (data stored like json)



Sounds Good, But How?

How to set up and run MongoDB locally & remotely? Go =>



The screenshot shows the MongoDB website homepage. At the top is a navigation bar with the MongoDB logo and links for Products, Solutions, Customers, Resources, Learn, What is MongoDB?, Contact, Search, Sign In, and a Try Free button. The main heading is "What Is MongoDB?". Below it is a subheading "MongoDB is a document database with the scalability and flexibility that you want with the querying and indexing that you need". There are two buttons: "Start free with MongoDB Atlas" and "Download MongoDB". Below this is the section "Makes development easy" with a paragraph about the document model. At the bottom, there is a code editor window showing JavaScript code for connecting to a MongoDB instance. A "Connect" button is visible next to the code, and a tooltip explains that the code connects to a locally hosted MongoDB database called "test" with a collection named "restaurants".

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What Is MongoDB?

MongoDB is a document database with the scalability and flexibility that you want with the querying and indexing that you need

Start free with MongoDB Atlas Download MongoDB

Makes development easy

MongoDB's document model is simple for developers to learn and use, while still providing all the capabilities needed to meet the most complex requirements at any scale. We provide drivers for 10+ languages, and the community has built dozens more.

```
JS Python Java C++ C#  
var url = 'mongodb://localhost:27017/test';  
co(function*() {  
  const db = yield MongoClient.connect(url);  
  console.log("Connected successfully to server");  
  yield insertDocuments(db, null);  
})
```

Connect
Here we are connecting to a locally hosted MongoDB database called **test** with a collection named **restaurants**.



CRUD Operations & More

- Create
- Read
- Update
- Delete

Aggregation, Index...

Adds an **_id** field if not exist

12 bytes hexadecimal

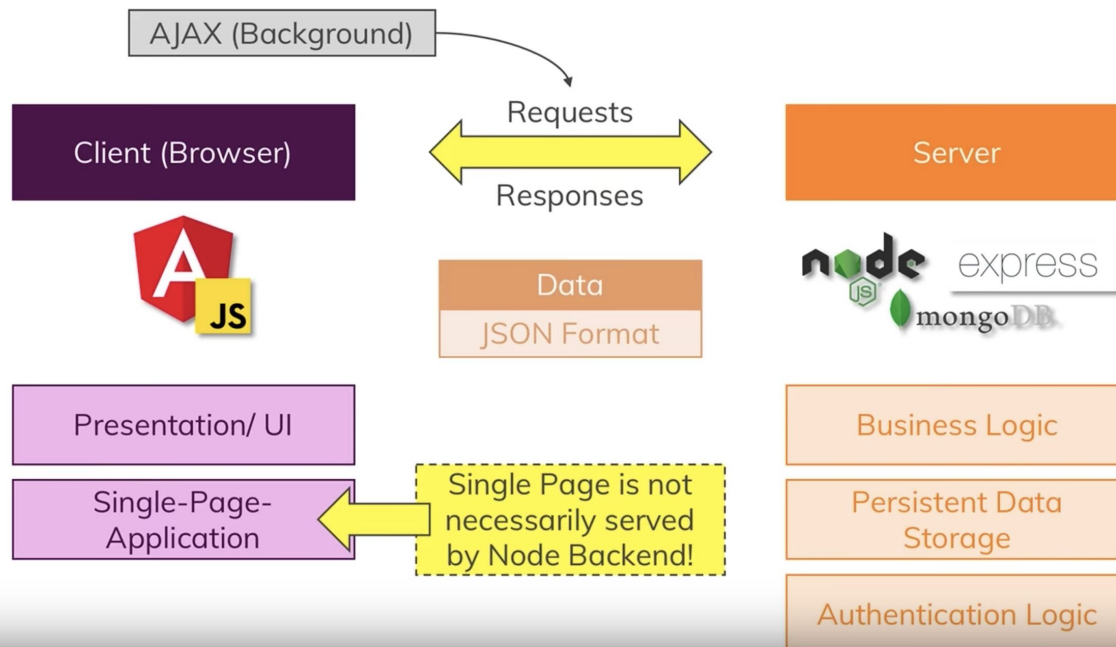
- a 4-byte value representing the seconds since the Unix epoch,
- a 5-byte random value, and
- a 3-byte counter, starting with a random value.



The MEAN Stack

Architecture

MEAN – The Big Picture





So, What Did You Build? [Check =>](#)

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Thank You!

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