MongoDB & MEAN Stack

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- **MongoDB Basics**
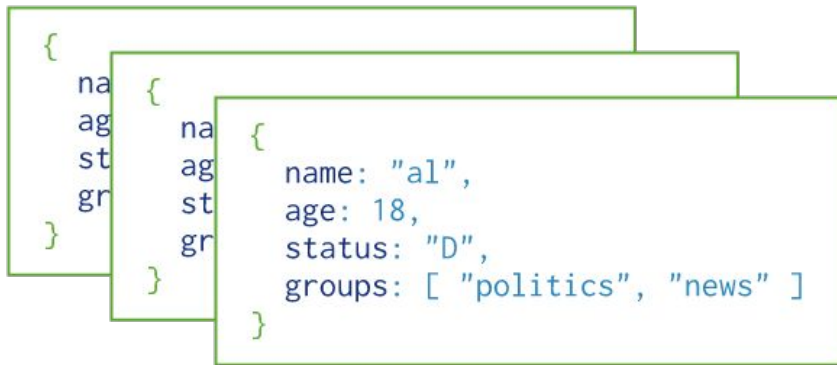
- **Walkthrough**

- **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

```
{
    na
    ag
    st
    gr
}
```
```
{
    na
    ag
    st
    gr
}
```
```
{
    name: "al",
    age: 18,
    status: "D",
    groups: [ "politics", "news" ]
}
```

Collection

NoSQL vs SQL

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) ?
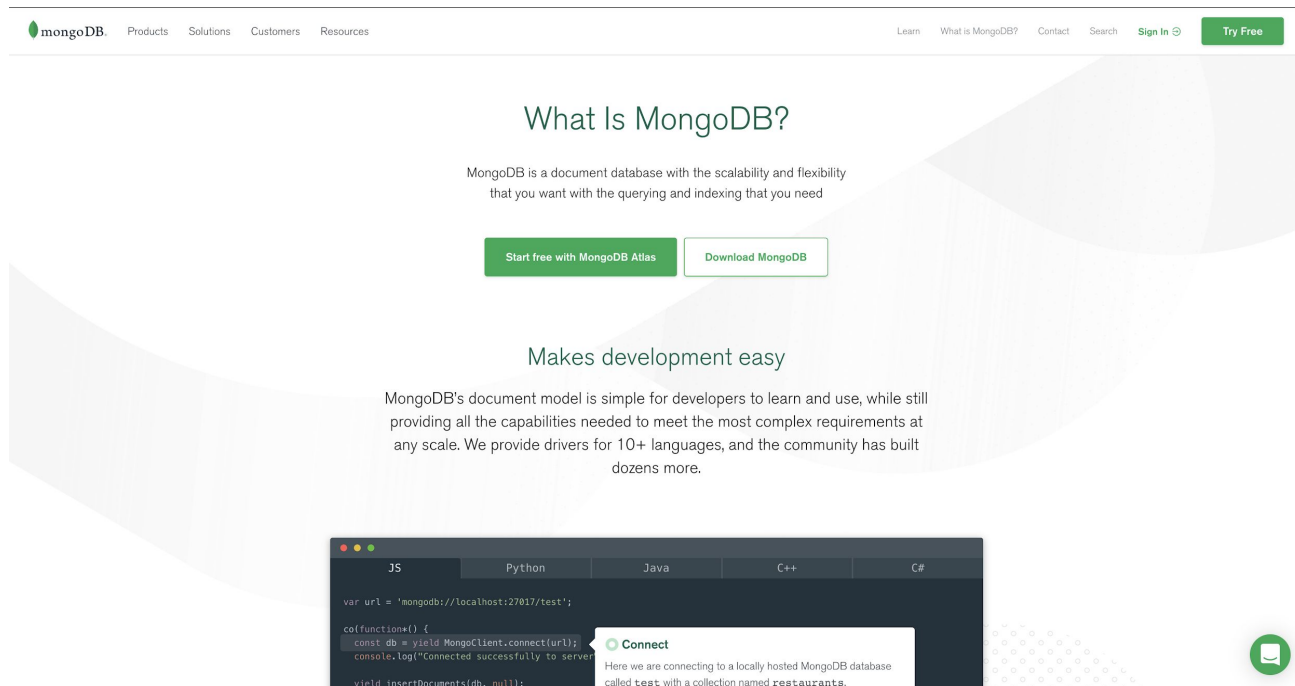
For database designer:

- 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 =>](#)

CRUD Operations & More

- Create
- Read
- Update
- Delete

Aggregation, Index...

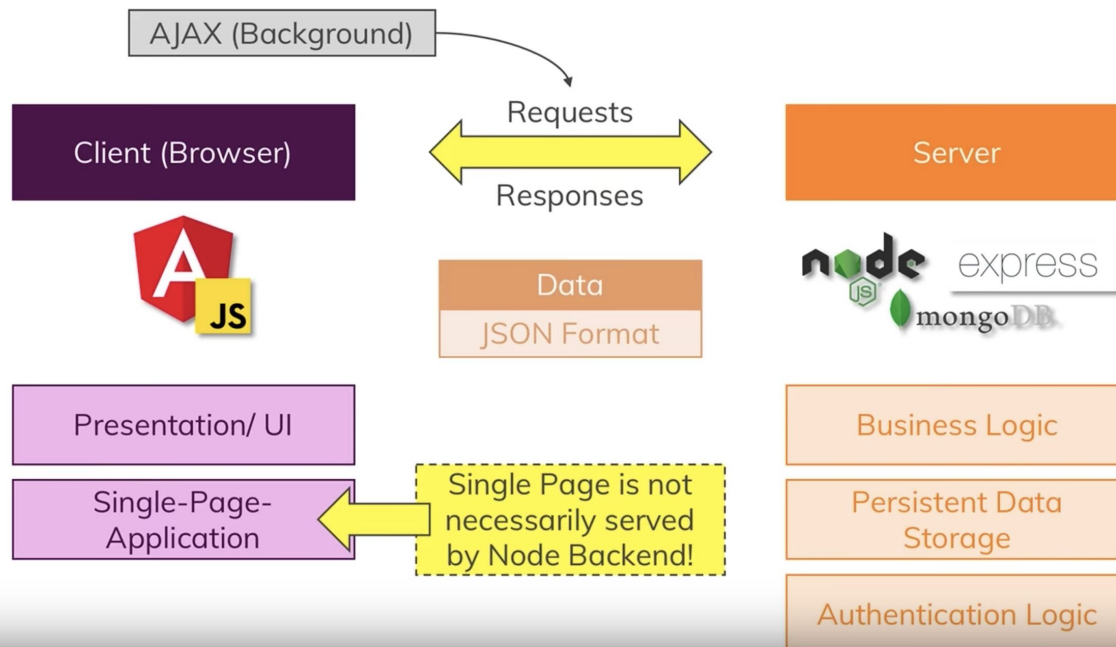Adds an **_id** field if not exist

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

AJAX (Background)

Client (Browser)

Requests

Responses

Server

Data

JSON Format

Presentation/ UI

Single-Page-Application

Single Page is not necessarily served by Node Backend!

Business Logic

Persistent Data Storage

Authentication Logic

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

Friends Cycle   New Post

Post Title *

Post Content *

submit

Thank You!

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