

# MongoDB: Introduction to NoSQL databases

Learn about the advantages of NoSQL databases and how they differ from traditional SQL databases. Install and set up MongoDB to get started with NoSQL.

N by Nodepremsir Dummy

MongoDB

mongoDB

One of the most popular document stores

Document store

MongoDB, Inc.

2009

C++

JavaScript

Master-slave replication

You need dynamic queries. You prefer to define complex queries, not map and reduce functions. If you need good performance on a big DB and your data changes too much

Cassandra



Wide-column store based on ideas of BigTable and DynamoDB

Wide Column store

Apache Software Foundation

2008

Java

No

Selectable replication factor

When data you need to store doesn't fit on server, but requires friendly familiar interface to it

Elasticsearch



A modern search and analytics engine based on Apache Lucene

Search engine

Elastic

2010

Java

Yes

Yes

When you have objects with flexible fields, and you need "advanced search" functionality

# CRUD Operations with MongoDB

## Create

Add new documents to your MongoDB collection and explore the flexibility of the document-based data model.

## Read

Retrieve data using powerful query techniques and utilize indexes to optimize search performance.

## Update

Modify existing data in your MongoDB collection and understand the various update operators available.

## Delete

Remove documents from your MongoDB collection and ensure data consistency.



# Express.js: Introduction to Node.js and Express.js

Discover the fundamentals of Node.js and how it enables server-side JavaScript development. Set up an Express.js application to build robust web servers.



# Angular: Introduction to Angular and TypeScript

**Directives**  
Explore the power of directives in Angular and leverage them to modify the behavior of HTML elements.

1

## Components

Understand the role of components in Angular and learn to create reusable UI elements.

2

## Modules

Organize your Angular application using modules and understand the benefits of modular architecture.

3



# Node.js: Introduction to Node.js

Learn the basics of Node.js and its event-driven architecture, allowing for highly scalable and efficient server-side applications.

# Integration of MEAN Stack: Connecting Express.js and MongoDB

## Express.js

Discover how to integrate Express.js with MongoDB to create a powerful backend for MEAN stack applications.

## MongoDB

Explore the MongoDB driver and learn how to perform CRUD operations in the context of a full-stack MEAN application.

## Angular

Connect your Angular frontend to the Express.js backend and build a seamless user experience with the MEAN stack.



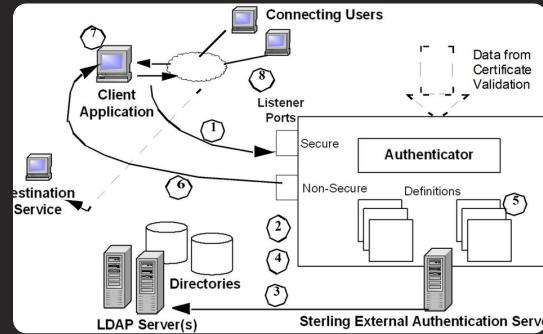
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# Handling User Authentication and Authorization



## User Authentication

Implement secure user authentication using industry-standard techniques and enhance the security of your MEAN stack application.



## User Authorization

Control user access to different parts of your application by implementing robust authorization strategies in your MEAN stack app.



## User Profiles

Create personalized user profiles and enable users to manage their information effectively within your MEAN stack application.

# Advanced Topics: Real-time Applications and More

1

## Real-time Applications

Utilize the power of Socket.io to build interactive and real-time applications with bidirectional communication between server and client.

2

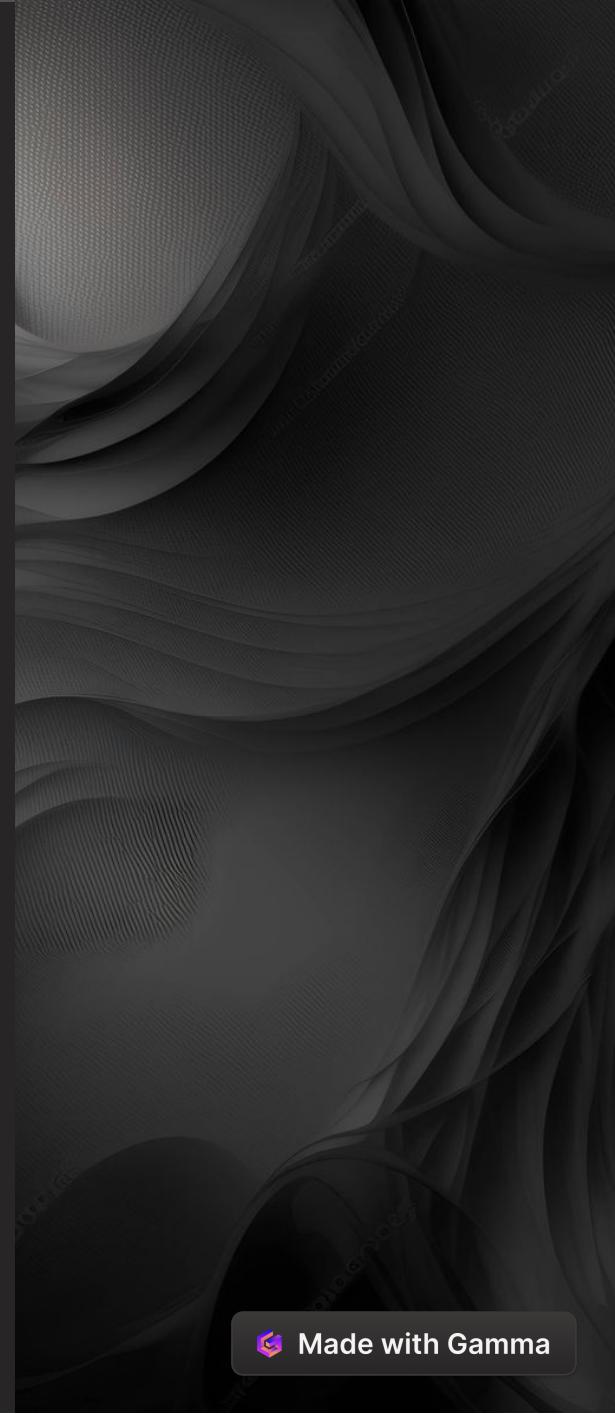
## Dockerization and Containerization

Learn how to containerize your MEAN stack applications using Docker for easy deployment and scalability.

3

## Microservices Architecture

Explore the principles of microservices architecture and build modular, scalable, and maintainable MEAN stack applications.



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