

QUICKEATZ

By: Samantha Ngo, Troy Daniello, Myles Austin, Rumman-Al-Karim
CSCI 49900-03 | MonWed 3:10PM
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Product Definition/Solution

- **Vendors**

- Create Vendor Profile
- Set and Update Specific Current Locations
- Reach More Customers

- **Customers**

- Find and Discover Nearby Vendors
- Access information such as current location, menu, and hours



Demo



Project Overview

Technologies

- **MERN Stack (minus ExpressJS)**
- **NextJS**
- **Tailwind CSS**
- **BCrypt**
- **Google Maps API**



Challenges

- Timing / Figuring out the scope of tasks
- Accounts and Sessions management



Solutions

- Doing things early, divvying tasks
- Using LocalStorage and tokens

QUICKEATZ

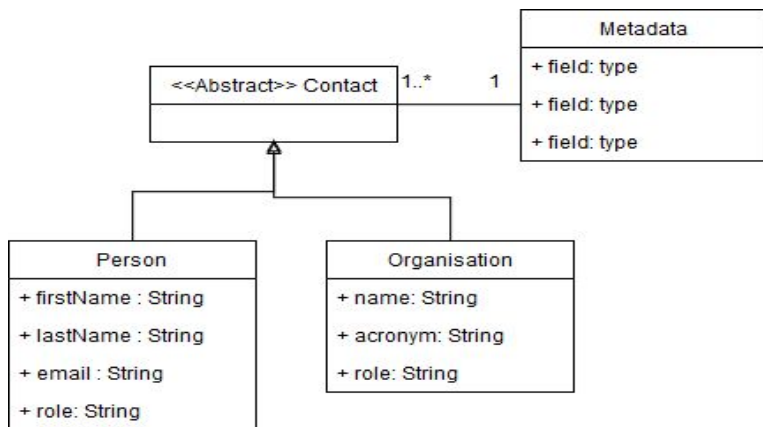
Questions, Comments, Suggestions?

MONGODB

By: Myles Austin, Rumman-Al-Karim

What is MongoDB?

- MongoDB is a document database that provides you with the scalability and flexibility you need with querying and indexing
- MongoDB stores data in flexible, JSON like documents
- Maps to objects in your application code
- Ad hoc queries, indexing, and real time aggregation



Document Data Model

Relational

The diagram shows two relational tables, `PERSON` and `CAR`, with their data being mapped into a single MongoDB document. The `PERSON` table has columns `Person ID`, `Firstname`, `Surname`, `City`, and `Age`. The `CAR` table has columns `Car ID`, `Model`, `Year`, `Value`, and `Year_Built`. Arrows indicate the mapping of data from these tables into the `cars` array of the MongoDB document.

Person ID	Firstname	Surname	City	Age
1	Paul	Miller	London	33
2	John	Smith	London	25
3	John	Smith	London	25

Car ID	Model	Year	Value	Year_Built
101	Bentley	1973	100000	2
102	Rolls Royce	1965	330000	3
103	Rolls Royce	1965	330000	3
104	Rolls Royce	1965	330000	3
105	Rolls Royce	1965	330000	3
106	Rolls Royce	1965	330000	3

MongoDB

```
{
  first_name: 'Paul',
  surname: 'Miller',
  city: 'London',
  location: [45.123, 47.232],
  cars: [
    { model: 'Bentley',
      year: 1973,
      value: 100000, _id: '101' },
    { model: 'Rolls Royce',
      year: 1965,
      value: 330000, _id: '102' },
    { model: 'Rolls Royce',
      year: 1965,
      value: 330000, _id: '103' },
    { model: 'Rolls Royce',
      year: 1965,
      value: 330000, _id: '104' },
    { model: 'Rolls Royce',
      year: 1965,
      value: 330000, _id: '105' },
    { model: 'Rolls Royce',
      year: 1965,
      value: 330000, _id: '106' }
  ]
}
```

What makes MongoDB unique?

- It utilizes a Flexible Data Model
- It has an expressive Query Syntax
- It's Easy to Learn
- Strong Performance
- Scalable and Reliable
- Good Documentation
- Server Side Scripts

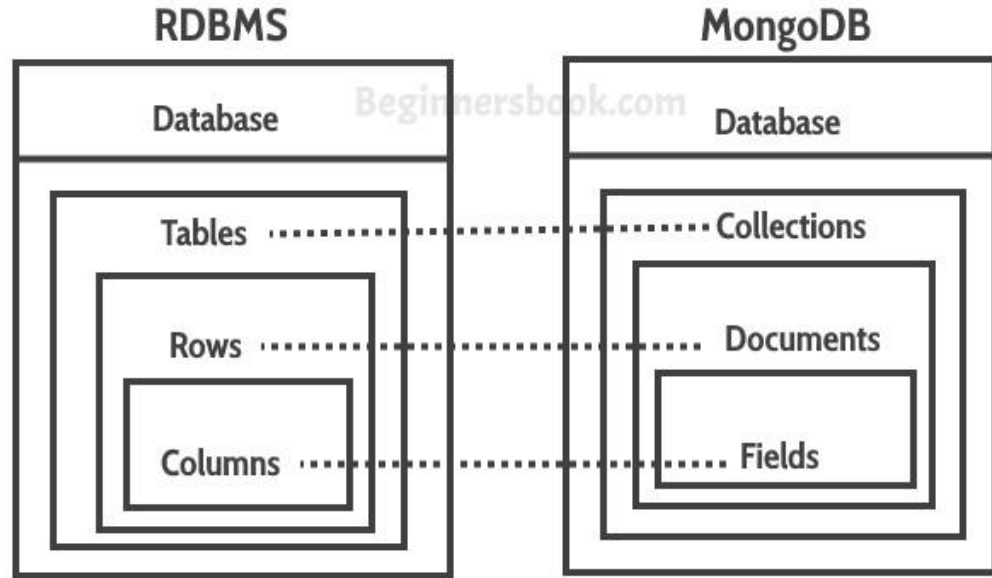


Additional Services



Differences between RDBMS and MongoDB

- RDBMS is **relational** while MongoDB is **non-relational**
- RDBMS is *vertically* scalable while MongoDB is *horizontally* scalable
- RDBMS tends to have more consistent data than MongoDB
- RDBMS is **generally slower** than MongoDB



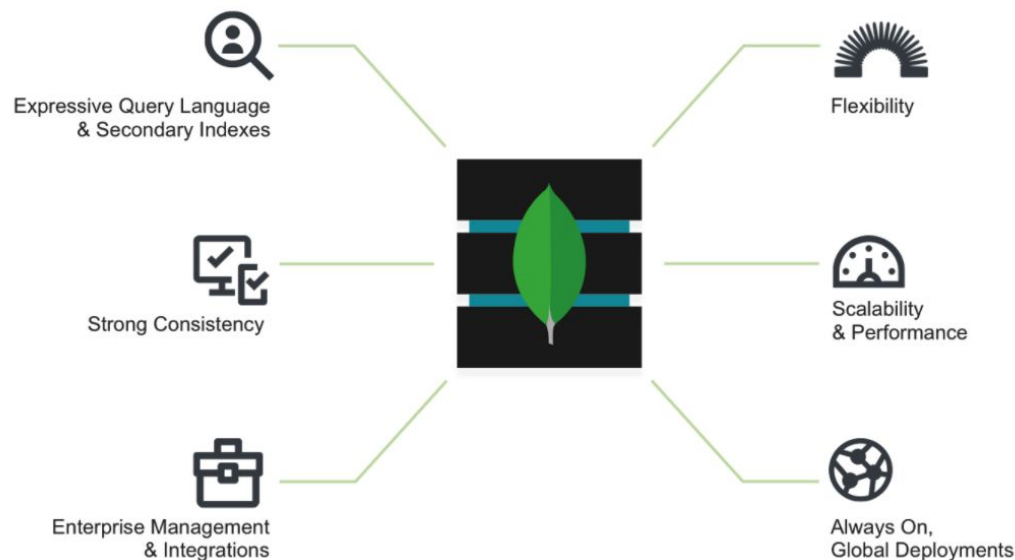
Differences between MongoDB and MySQL

Which database is right for your business?

	MySQL	MongoDB
Use case	Legacy applications or applications that require multi-row transactions (i.e. accounting systems)	Real-time analytics, content management, internet of things, mobile apps
Data structure	Structured data with clear schema	No schema definition required
Risk	Risk of SQL injection attacks	Less risk of attack due to design
Analysis	A great choice if you have structured data and need a traditional relational database.	A great choice if you have unstructured and/or structured data with the potential for rapid growth.

Why MongoDB is the best option

- Represent data with variability over time / in its structure
- Enable collaboration of a large number of teams
- Scale to high levels of read and write traffic.
- Scale your data repository to a massive size.
- Evolve the type of deployment as the business changes.
- Store, manage, and search data with text, geospatial, or time series dimensions.





Questions, Comments, Suggestions?

TAILWIND CSS

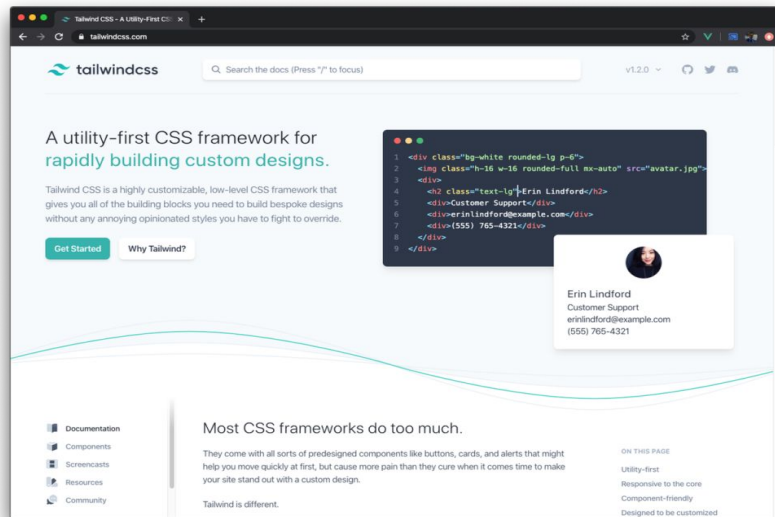
By: Samantha Ngo, Troy Daniello

What is Tailwind CSS?

- CSS framework
- Customizable collection of CSS utility classes which is also made to be customizable with JavaScript
- Rapid creation of UIs
- Written in PostCSS



Tailwind CSS



What does Tailwind CSS have to offer?

- Easy integration into many frameworks
- Easy to use via setup of a config file
- Intuitive and fast UI creation
- Designed with consideration for customization from the ground up
- Single source of truth components and templates
- Removal of all unused css during the building for production process which optimizes production
- Responsive design which allows for the creation of adaptive UIs
- Functions and Directives

Configuration File and Customization Features

Configuration File: In order to use Tailwind in a project, a developer can either use a default configuration or create a config file to define any customizations. This is initialized at the root of a project and has different **customizable sections**:

Theme	⇒	Color Palette, Breakpoints(Screens), Spacing
Breakpoints	⇒	Customizable breakpoints via screens
Colors	⇒	Curating/Customizable colors
Spacing	⇒	Customizable spacing and sizable scale

How to Use It

1. Installation
2. Configuration(optional)
3. Add given class names to html/XML.
4. That's it!



```
<div class="bg-gradient-to-r from-purple-400 via-pink-500 to-red-500 ..."></div>
```

ring-offset-0

ring-offset-2

ring-offset-4

```
<button class="... ring ring-pink-600 ring-offset-0">ring-0</button>  
<button class="... ring ring-pink-600 ring-offset-2">ring-2</button>  
<button class="... ring ring-pink-600 ring-offset-4">ring-4</button>
```

Seamless Custom Configs

tailwind.config.js

JS tailwind.config.js

```
24 green: colors.emerald,  
25 blue: colors.blue,  
26 indigo: colors.indigo,  
27 purple: colors.violet,  
28 pink: colors.pink,  
29 eaglegreen: "1A535C",  
30 turquoise: "4ECDC4",  
31 mintcream: "F7FFF7",  
32 bittersweetred: "FF6B6B",  
33 naplesyellow: "FFE66D",  
34 },
```

```
],  
mono: [  
  "ui-monospace",  
  "SFMono-Regular",  
  "Menlo",  
  "Monaco",  
  "Consolas",  
  "Liberation Mono",  
  "Courier New",  
  "monospace",  
],  
pridi: ["Pridi"],  
bungee: ["Bungee Shade"],  
},
```



Tailwind CSS

Questions, Comments, Suggestions?

Thank You

Have a great summer everyone!

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