**MERN Web Development -** [Aditi Dosi](https://adosi12.medium.com/?source=post_page-----468bd6b6dfb2--------------------------------) Sep 2, 2022

Timeline

Description automatically generated

MERN Stack is a JavaScript Stack that is used for easier and faster deployment of full-stack web applications

**Getting to know MERN Stack components:**

1. **MongoDB: Cross-platform Document-Oriented Database**  
   MongoDB is a NoSQL database where each record is a document comprising of key-value pairs that are similar to JSON (JavaScript Object Notation) objects. MongoDB is flexible and allows its users to create schema, databases, tables, etc. Documents that are identifiable by a primary key make up the basic unit of MongoDB. Once MongoDB is installed, users can make use of Mongo shell as well. Mongo shell provides a JavaScript interface through which the users can interact and carry out operations (eg: querying, updating records, deleting records).
2. **Express: Back-End Framework:**

Express is a Node.js framework. Rather than writing the code using Node.js and creating loads of Node modules, Express makes it simpler and easier to write the back-end code. Express helps in designing great web applications and APIs. Express supports many middlewares which makes the code shorter and easier to write.

1. **React: Front-End Library**

React is a JavaScript library that is used for building user interfaces. React is used for the development of single-page applications and mobile applications because of its ability to handle rapidly changing data. React allows users to code in JavaScript and create UI components.

1. **Node.js: JS Runtime Environment**

Node.js provides a JavaScript Environment which allows the user to run their code on the server (outside the browser). Node pack manager i.e. npm allows the user to choose from thousands of free packages (node modules) to download.

**Why choose the MERN stack?**

Let’s start with MongoDB, the document database at the root of the MERN stack. MongoDB was designed to store JSON data natively (it technically uses a binary version of JSON called [BSON](https://www.mongodb.com/json-and-bson)), and everything from its command line interface to its query language (MQL, or MongoDB Query Language) is built on JSON and JavaScript.

MongoDB works extremely well with Node.js, and makes storing, manipulating, and representing JSON data at every tier of your application incredibly easy. For cloud-native applications, [MongoDB Atlas](https://www.mongodb.com/cloud/atlas) makes it even easier, by giving you an auto-scaling MongoDB cluster on the cloud provider of your choice, as easy as a few button clicks.

Express.js (running on Node.js) and React.js make the JavaScript/JSON application MERN full stack, well, full. Express.js is a server-side application framework that wraps HTTP requests and responses, and makes it easy to map URLs to server-side functions. React.js is a front end JavaScript framework for building interactive user interfaces in HTML, and communicating with a remote server.

The combination means that JSON data flows naturally from front to back, making it fast to build on and reasonably simple to debug. Plus, you only have to know one programming language, and the JSON document structure, to understand the whole system!

MERN is the stack of choice for today’s web developers looking to move quickly, particularly for those with React.js experience.