

How to Build and Deploy a MERN Application

Hello!

I am Dylan

I am the treasurer of Knight Hacks and I'll be the person walking you through the process of building and deploying this web app.

Why does this matter?

	2006	2017
Incorporate as LLC	\$2,000	\$500
Office Space	\$20,000	\$0
Office Supplies	\$1,000	\$0
MS Office/G Suite	\$1,000	\$0
Web + CRM	\$50,000	\$0
Register a Domain	\$1,000	\$10
Ramen	\$400	\$300
Coffee	\$100	\$400
Servers/Hosting	\$75,000	\$0
Developer Tools	\$50,000	\$0
	\$200,500	\$1,210



What's a MERN Application?

- MERN is an abbreviation, it stands for MongoDB, Express.js, React and Node.js. I'll explain what each one of these things is in more detail as we come across them in this tutorial, but for now just understand that each of these tools will become part of our stack (combination of softwares and programming languages) we use to make this application.

Key terminology

- Frontend: the part of the application that the user interface and interact with.
- Backend: the part the user doesn't see that handles all the logic of the app and makes the app work.
- Database: Where all the information from our application will be stored.

Stuff You Need To Download

- Node.js and NPM
- Git / Github
- That's it!

1.

Set up your database

Database Setup

- We'll be using MongoDB Atlas in this tutorial
- MongoDB Atlas is a cloud hosted database so we won't have to install anything onto our computer to use it.
- It's a noSQL database, this isn't very important for our initial setup but will become important when you want to begin utilizing the database.

2.

Set up Heroku

3.

Create your React Application

React Application Creation

- We'll be using React for this tutorial since it's a MERN app we'll be deploying, but alternatively you could definitely use a MEAN (Angular.js) or a MEVN (Vue.js) stack and the process would be very similar. The only difference would be substituting this part with the basic creation process for those frameworks.

4.

Create your
Express
Application

Express Application Creation

- Building an Express application is very straightforward and it's what's going to host our frontend that we just created as well as our backend.

5.

Connect Backend to Database

Connecting Backend to Database

- In order to do this, we'll have to make some changes to the express application that we just generated.

6.

**Connect the
frontend to the
backend**

Connecting Frontend and Backend

- Now lets go ahead and check to make sure that our frontend (React app) is connect to our Backend (Express app) properly and that we can make requests to it.

7.

Deploy to Heroku

Deploy to Heroku

- The final step is going to be to deploy our application to Heroku so that other people on other machines can access it!
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What's Next Though

- ▣ What's the problem with this app?
- ▣ Docker / Docker-Compose
- ▣ NGINX
- ▣ Kubernetes

Thanks!

Feel free to reach out to me at
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Also please connect with us on social media at:

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