

## Project Requirements for FullStack JavaScript Student Projects

The purpose of the capstone project is to reinforce what you've learned and show off your skills! This can be your go-to tool to show off to potential employers to demonstrate you know what you're talking about. Pick an idea that is fun, challenging, and hopefully useful, too!

Create an application that demonstrates your knowledge of the JavaScript MEAN stack and the front-end development skills you've been learning. This application can be anything of your choosing as long as demonstrates the below principles and requirements. Your project does not need to be "complete" in that it doesn't need to be a fully-functioning, polished application in its final state. There can be missing features, placeholder images/text, or even missing pages and features. The important point is that you demonstrate good coding practices and the major platforms you learned in the course. The requirements for graduation are:

- Your project is responsive to different devices and/or browser sizes/resolutions (Responsive Design)
- Your project is written primarily using the JavaScript MEAN stack (ie: don't write a PHP or .Net application that utilizes has some JavaScript). Including other platforms, frameworks, and languages are all acceptable, so long as the primary development is done in the MEAN stack and JavaScript frameworks, modules, and platforms.

Must implement both a front-end and back-end component, including:

- **Front-end component: HTML, CSS, JavaScript and a front-end JavaScript framework.** Default to AngularJS, but you're welcome to pursue another front-end JavaScript framework if you would like. You can compare several front-end JS frameworks by checking out <http://todomvc.com/>
- **Back-end component: implement Node.js, Express.js and build/use a NoSQL database with MongoDB.**
- Must implement CRUD functions, at minimum Read and Write to a database
- Your code has comments. Every line doesn't need a comment, but at the very least large blocks of code you've written should have comments explaining what that block of code does.
- You are welcome to use frameworks, packages, and other platforms along with your development. Feel free to use Bootstrap to help on the front-end work, but you must still customize the look in some way. Or if you want a chat function, you can use an existing Node package so you don't recreate the wheel.
- It must include a README file providing the following:
  - A brief description of your project's purpose and functionality (ex: "My Code Louisville FSJS Project. A web app designed to let users create their own To-Do

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lists, add items to the lists, and mark them as complete.” Try to think of what would be useful to a potential employer that is looking at your GitHub account without any context

- **Detailed** steps on how to start the application and any prerequisites to run it. For example, if your project requires using a package manager like NPM, you must include any requirements needed to run it and the steps needed to view and get started using. An example of what notes you might include in your readme for a locally run project:
  - Go to root directory of project
  - Run ‘npm install’ to install necessary packages
  - Run ‘mongod’ to start mongo service
  - Run ‘npm start’ to begin the app server process
  - Open a localhost windows to the port it’s running on
- Your project code is on your GitHub account in its own repository. If you choose to host your application on a live URL, GREAT! You can share that for demonstration purposes or ease of running - and this is encouraged! But your code must still be available on GitHub for review.

Exceptions can be made to these requirements, please check with Code Louisville staff if you have good reason to ignore or modify one of these requirements. The ultimate goal is a good demonstration of the principles learned on Treehouse and during meetups, so if you feel your project differs from the requirements but still demonstrates those skills, please check!

Team projects are an option, but each team project must be specifically cleared by Code Louisville staff. Team projects should specifically benefit from having more than one team member and have a larger scope of work than an individual project might have.

Above all else, have fun and show off what you can do!