

I started off using create-react-app which is a beginner way to start apps using React. Vite is another way to start up React apps that are smaller in size such as this one. I started off keeping in mind the tech mantras like YAGNI and KISS and focused on making sure the task at hand was sufficient. The MVC format was pivotal in determining the folder structure in this MERN project. The Model defines the essential components of the app and is the basis of how the data will go into the Database. The View is the visual manifestation of the app and is what the user will interact with. In this case it would be the todo-list, namely the input bar, the complete button and the delete button. Lastly the Controller is the intermediary between the Model and the View. That's where we define our functions using the Model and pass them along to be used by our View. After the planning of which stack and design pattern to use, which is part of the Software Development Lifecycle, I focused on implementing them into the project.

React's component driven architecture allows for clean and concise formatting of folders whereby the controllers, routes, model and components are tucked neatly into their own respective folders. My controller folder has my CRUD functionality that would be used to query and modify data, the model folder has the design of the Schema that is used for the MongoDB database and the view has all the React components where the user can interact with the todo list. Apart from that we have a server file that is used to create the server using express and set up the connection between the frontend and the backend.

As for the challenges I faced, the main one was the delete and moveToCompleted methods as they were a bit complicated and involved copying the

array, adding on to it and splicing. If I were to improve on my project, I would add authorization most likely using Google Auth or something similar and I would add delete functionality to the uncompleted tasks as it's a quality of life addition to delete tasks anytime instead of only when it's completed.