## **Project Design**

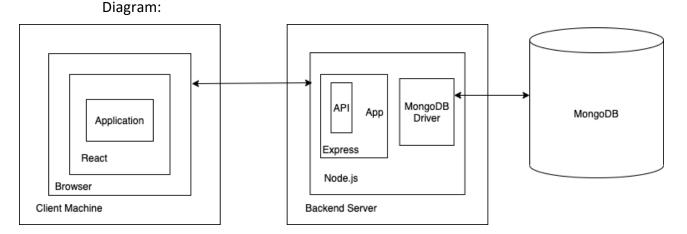
#### 1. Data design:

Since The database used in this project is MongoDB, the project is using non-relational schemas as the data model.

The two main data models are designed as:

## 2. Architecture design:

MERN stack architecture:

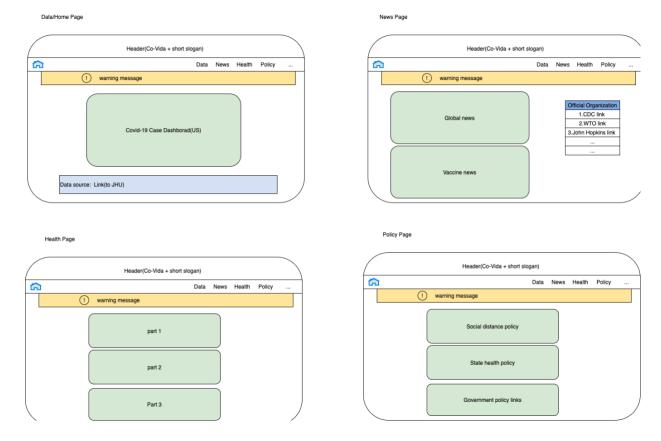


#### For the file structure:

Root folder contains frontend and backend folders. One package.json inside of NodeJS backend environment and a package.json for React side of files. Backend server and the frontend client both have their own node\_modules folders. On the backend, Express is installed for the Node runtime, Mongoose for a more convenient way to talk to the MongoDB, and on the frontend, there is a Create-React-APP as frontend framework, Redux is used for state management. Additionally, depending on what are already listed inside of your package.json files, when run npm install separately it will be installed in those two folders.

# 3. Interface design:

Four main pages' Front-end interfaces designs are as below:



For users interacting pages' designs are as below:

