Final Project
Complete Web Application
Group Assignment

For this assignment you are to work in groups of 3 to design and build a full stack CRUD app. See the signup sheet for groups.

You are to build a single-page app (SPA) that consists of various item components. Single-page apps differ from traditional multi-page apps in that navigating a single-page app doesn't involve rendering an entirely new page. CRUD (create, read, update and delete) operations will be performed on the items.

The user-interface will consist of React function components that are styled in CSS. The backend will be built in nodejs and the data will be persisted with MongoDB. Components should be organized and easily identifiable by file name.

What you Will Build

You are to build a web app that displays components pulled from a database. You will also add the ability to signup/log in to the site. Only an authenticated user should be able to add, edit, and delete item components. Anyone not logged in may view.

(Sample design with a header and 3 card components.)

Requirements:

- Functional single-page app consisting of multiple React function components.

- Intuitive user interface
- CSS styling of all user interfacing elements in an external css file
- React Component Design demonstrating reusable components and separation of concerns
- Use of state to update mutable elements of the components so that React rerenders on the update
- Form components for login plus add and update of item components
- Demonstrate composition with the use of a card component that is used to provide styling for wrapped components.
- Item components should contain:
    - Image
    - title
    - any other descriptive text elements (description, price, etc.)
- Component elements must be persisted in a MongoDB.
- User signup and login authentication.
- Anyone may view the app components.
- Only authenticated users may add, edit and delete components.

Submission Components

<u>video demonstration</u> of all implemented functionality. The video should be a comprehensive demonstration of all required functionality plus any additional design/functional elements.

<u>design document</u> - cover page listing group members and class section, screenshot of UI design, hierarchical list of components, list of implemented routes (endpoints), narrative of accomplishments, challenges, obstacles overcome, and any future direction with the project

<u>source code</u> - project source code

Project Milestones

<u>User Interface design</u> - a color diagram detailing the planned design for the app. Create the design in Figma.

<u>Functioning User Interface.</u> Working front end only.

<u>Group member contribution and participation survey</u>. Every student will fill out and submit a survey rating the participation and contribution of group members.

<u>Submit project zip, design document and video demonstration</u> of all functional components and achieved objectives of the assignment. All

required functionality must be demonstrated in the demo video to receive credit.

Class Demonstration - all group members must be present and participate