Setting up the application.

Pre-requisites

Node version: V14.15.4

NPM version: 6.14.10

1) Clone the repository: https://github.com/UdeshikaSen/Noon-SampleApp.git

2) Build the application.
    - NextJs application name : **sample-app**
    - cd sample-app
    - npm install
    - npm run dev -- -p 3005

3) Run the Node server.
    - NodeJs Server name : **node-sample-app-server**
    - cd node-sample-app-server
    - npm install
    - node sample-app-server.js

4) Access the application through http://localhost:3005/

Development Approach.

Firstly, the application was designed in a rough sketch and the components were identified. Based on the functionality of each component in the system, further separation of components was done as functional components and class components.

Since the requirement was to design a single page application, only one page was created (index.tsx). Basic layout of the system design was developed in the ‘Layout.tsx’. To provide the look and feel of the requested design, a navigation bar was used to separate the page into ‘Home’ and ‘Favorites’. Then the basic navigation of the system was developed using props and states of the ‘Layout’ component.

Initially the project components and the page were developed through JSX and later converted into TypeScript. At this stage custom types were defined in ‘custom-types.tsx’ so as to define types for props and states in the components. React-Bootstrap was used to style the application in a responsive manner while adopting mobile-first approach.

At this stage Node server was implemented using Express to define the REST API. Basically, two API were defined to get posts and update posts.

Then the necessary API calls were done through the application. And states were properly maintained to apply the need functionality of components such as increasing the like count when a post is added to favorites.

Finally, the application was properly styled to get the needed level of look and feel. In places where the Bootstrap styles were not enough to get the intended design, custom CSS were defined and applied to the necessary controls. Sass was installed and a sass file is added to define the styles. But advanced sass features were not used for development depending on the time constraint.

Additional Information.

- **Pictures of items and owners are stored within NextJS application. Ideally it should be moved to a separate file server.**
- **For the development of this application, it was considered there is only one user. When many users are available, proper data storage mechanisms should be adopted.**
- **When more users are available, user authentication and authorization should be done through an identity server.**
- **Future enhancements to the code.**

    - **EsLint –** For formatting and code quality checking
    - **JEST/Storybooks** – For testing
    - Do test code coverage.