Code Guide

# Overview

The document holds information about the structure of the react project for NTNUI Padling. It explains the code structure, folder structure and the way the project folders are ordered with contents.

## Libraries used in the app

Package.json holds all the libraries used in the application

* Semantic UI: css framework used to create the layouts and looks of the app.
* Firebase: database framework for handling, storing and retrieving db functionalities.
* CUID: create unique id.
* React-router and react-router-dom: used for route functionalities of the react app.
* Google-map-react: google maps and position library to handle location services in the views.
* History: used to perform # and store route histories.
* Moment: used to handle date-time format.
* React-dropzone: used to drag and drop items. Mostly used for picture upload feature.
* React-calendar: used in calendar component for filtering events data.
* React-infinite-scroller: used for infinite scrolling and fetch data from firebase on scroll down.
* React-places-autocomplete: used for autocomplete feature in google places to find location from google places api.
* React-redux, redux and redux-thunk: used for redux store functionality.
* React-toastify: used for the toast notification to show errors and responses of user actions.
* Yup: used for data/form validation in client-side forms, in conjunction with formic.
* Formilk: used to create client-side forms with validation and submission.

# Folder Structure

The folder structure mentions only the folders and its contents that are applicable to the application development and further maintenance.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Folder Name** | | | | | | | **Description** |
| src | | | | | | | All the components, features and main file is stored in this folder. The main file is the index.js which is the root of the app. Ignore the app.js file here as this is not the one used in index.js as the root of the application. The root app file is in app>layout>app.jsx. |
| functions | | | | | | | Folder created by firebase to hold all firestore functions with the triggers to run them. |
| src | > | app |  | | | | Holds the app.jsx that is referred in index.js. It also holds all the common files and functions that are used all over the app, along with the redux store to handle data within the app. |
| > | api | > | config | firebase.js is the file that holds the firebase configuration that are taken from firebase console. |
| > | firestore | firebaseService.js holds all the methods that handles firebase functionalities. The method names are intuitive of the action that is performed on firebase.  firestoreService.js holds all the methods that handles firestore functionalities. The method names are intuitive of the action that is performed on firestore database. |
| > | async | asyncReducer.js holds the redux action and reducer in one file to handle the async functionalities of the application. Async is required to handle data from the database as there are some time required to operate with the database. Database function is not instantaneous, so the async functionality allows the time to perform database actions. | | |
| > | common | > | errors | ErrorComponent.jsx holds the view for the error page that are redirected when a route is not found in the application. This can be used to display error page to the user, for whenever an error occurs, and a view can’t be loaded. |
| > | form | Holds all the generic form elements that are used in the app. Formik library is used to handle form and form submission. |
| > | modals |  |
| > | photos |  |
| > | util |  |
| > | hooks | > |  |  |
| > | layout | > |  |  |
| > | staticPages | > |  |  |
| > | store | > |  |  |
|  |  |  |  |  | | |  |
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