Mobile Software Development

Syddansk Universitet, TEK-MMMI, Campusvej 55, 5230 Odense

TODO: React app

The app has been developed using the React framework with JavaScript. The app has 5 different components, these are the following: `App`, `FrontPage`, `Navbar`, `Todo`, and `TodoList`.

`App` is the component wrapping the whole application, this component is used in Index to render the app. `App` is using `react-router-dom` to make the app ready for expansion with multiple pages and easy navigation. There is currently only the index element which is the `FrontPage` component. The `App` component also renders the `Navbar` component, which is the header in the top of the app. Here links can be inserted if multiple pages is made. The whole app is using `Bootstrap`, where `Bootstrap` is great for building responsible websites which will make the app mobile friendly from the beginning. In the app the `lazy()` function from React is used to import components when they are needed. If an import takes a long time, the `Suspense` component used in `App` will show "Loading…" until the component has been imported.

The `FrontPage` component is a very small component that only renders the `TodoList` of the app. The `TodoList` component is the largest component in the app. `TodoList` is responsible for managing the whole todo functionality of the app. This component renders the todos and has the methods for adding, deleting, and marking todos as complete. In `TodoList` the `useState()` hook is used for the todos and completed todos as these are saved in an array. `TodoList` also uses the `useRef()` hook. The `useRef` is used to manipulate DOM elements directly in the app, this makes it possible to show and hide the completed todos with a button click. A completed todo can also be readded to the todolist again.

A todo is saved in the array as an object that has been `stringified` with the use of `JSON.stringify(<TodoObject>)`. To get the information of the todo `JSON.parse(<TodoElement>)` is used which converts it back to an object.
The todos are showed in the app as the `Todo` component. This component is also a small component, used to only show the todos.