

P02 Mobile Project, React

1

By now, you should have chosen a service for your MOBA2 project app. Reminder: one goal of this course is to develop the app in two different technologies:

- React Native (based on Expo)
- iOS native (XCode and SwiftUI)

Add a short description of your project to the course Wiki:

- Service to be used
- Team members
- Link to the API description
- Other important information if available

2

Start a new React project. There are various ways to do this. The React development teams recommends using a framework like Next.js or Remix:

<https://react.dev/learn/start-a-new-react-project>

As an alternative, Vite can be used to quickly set up a React installation:

<https://vitejs.dev>

We recommend Vite for this assignment:

<https://vitejs.dev/guide/>

Steps with yarn:

```
yarn create vite my-react-app --template react
cd my-react-app
yarn
yarn dev
```

Make some changes to the home page, e.g., change the welcome text and add other HTML elements (button, ...) to the page.

Also, try some alternatives – online or minimal HTML template – described here:

<https://react.dev/learn/installation#try-react>

<https://stackblitz.com/edit/vitejs-vite-lerneb?file=index.html&terminal=dev>

3

Develop a small React app simulating traffic lights:

Start with a *Light* component, e.g.,

```
const Light = ({ color, active }) => (  
  <div  
    className="light"  
    style={{ backgroundColor: color, opacity: active ? 1 : 0.3 }} />  
)
```

Styles can be added to a component as inline styles, like *backgroundColor* or *opacity* in the code shown above. A separate stylesheet rule can be used for additional styling:

```
.light {  
  width: ...;  
  height: ...;  
  border-radius: 50%;  
  margin: ...;  
}
```

Now, use the *Light* components to build a *TrafficLight* component consisting of three *Lights*.

Add some logic, e.g., a *nextStep()* method, to the *TrafficLight* component that switches the *TrafficLight* to the next state.

The final App should contain two *TrafficLights* controlled by timers or by clicking on the component.

