

Week 10: Introduction to React

Agenda

- Setting up a React app
- Storybook
- Components
- State hook
- Effect hook
- CSS in React
- Demo

Setting up a React app

- `npm create vite@latest my-app -- --template react-ts` Preferred way
- `cd my-app`
- For starting React app use `npm run dev`

Storybook

- In some seminars we will use a tool called storybook
- It is used for building isolated components, and it is perfect for learning to build components
- You can install it by running `npx sb init` inside an existing project, but both demo and iteration will have it installed beforehand
- Use `npm run storybook` to start the storybook

Components

- A way of splitting the UI into independent, reusable pieces
- Use functional way to create components and define an interface for its props

```
export const Component = (props: ComponentProps) => {}
```

- First letter of the component name must always be capitalized

State hook

- Essentially a variable which needs to be dynamically rendered

```
const [ state, setState ] = useState<type>(initialValue)
```

- Change the value only by using setState, as it also tells each component using the state to rerender

Effect hook

- Lets you perform side effect when rendering
- `useEffect(func)` is called at every render
- `useEffect(func, [state])` is called whenever one of the listed states changes
- It's a good place to make API calls, and you will need it when fetching data from REST API

CSS in React

- Inline as in HTML
- Inline with a style object
- Import stylesheet as in HTML
- CSS modules, similar to stylesheets, but styles are local
- CSS modules use `.module.css` file extension

Hands on: Demo

- Download demo from Interactive syllabus
- Read `index.md`

Hands on: Iteration 08

You can find the assignment in [GitLab issues](#) as well as in the [interactive syllabus](#).

Let's take a look together.

Before you start:

- Please check whether your tutor has already accepted your MR
- If they have, make sure you have merged your solution from the previous week

*Note: if your tutor has **not** seen your MR, it's completely ok. You do **not** need to have the previous iteration merged to be able to work on a new one - **iterations are independent**. However, if you **do** have an accepted MR that still has not been merged, make sure to merge it first.*