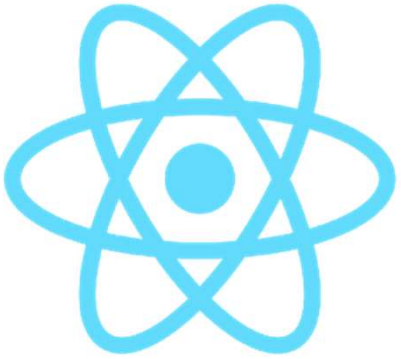

React Fundamentals
Short recap - day #1

Peter Kassenaar –
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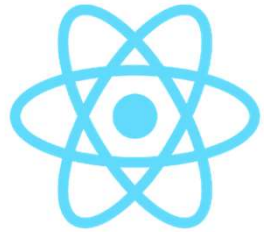
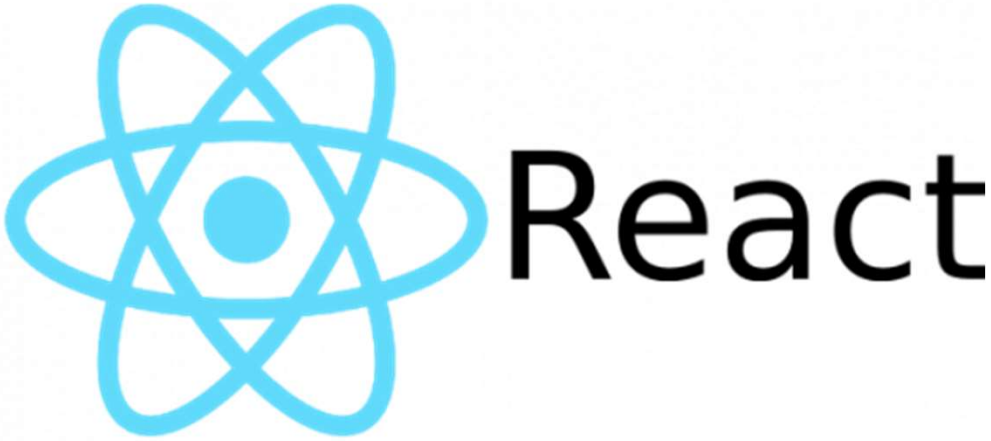
Day #1

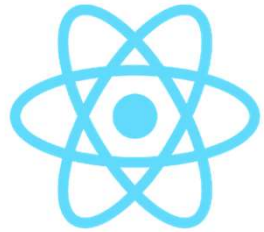


- Introduction – overview of the front-end landscape
- React tooling – installation
  - Node.js / npm & npx
  - Create React App
- The structure and architecture of React apps.
  - General structure, adding components, loading components, adding functionality
- Class based vs. Function based components
- state and props in components

Front-end Frameworks – the big four



3 Basic principles in every React App

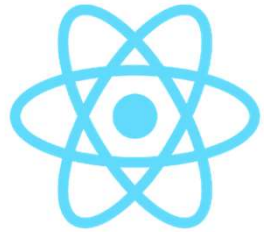


1. Components
2. Reactive Updates
3. Virtual DOM in memory

Important Files

- `Package.json`
- `Index.js`
- `App.js`

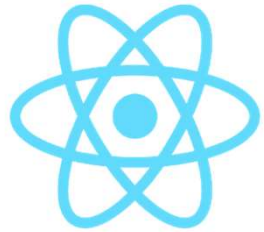
Starting your app



`npm start` (`react-scripts start`) does a lot of stuff for you under the covers:

- Kicks of Babel for transpiling JSX
- Compile SASS to CSS
- Webpack for bundling files
- Sets up webserver at http://localhost:3000/
- Sets up Live Reload
- …

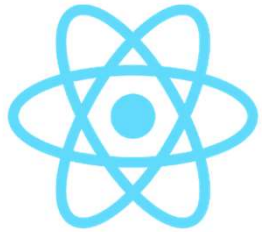
Principles we covered:



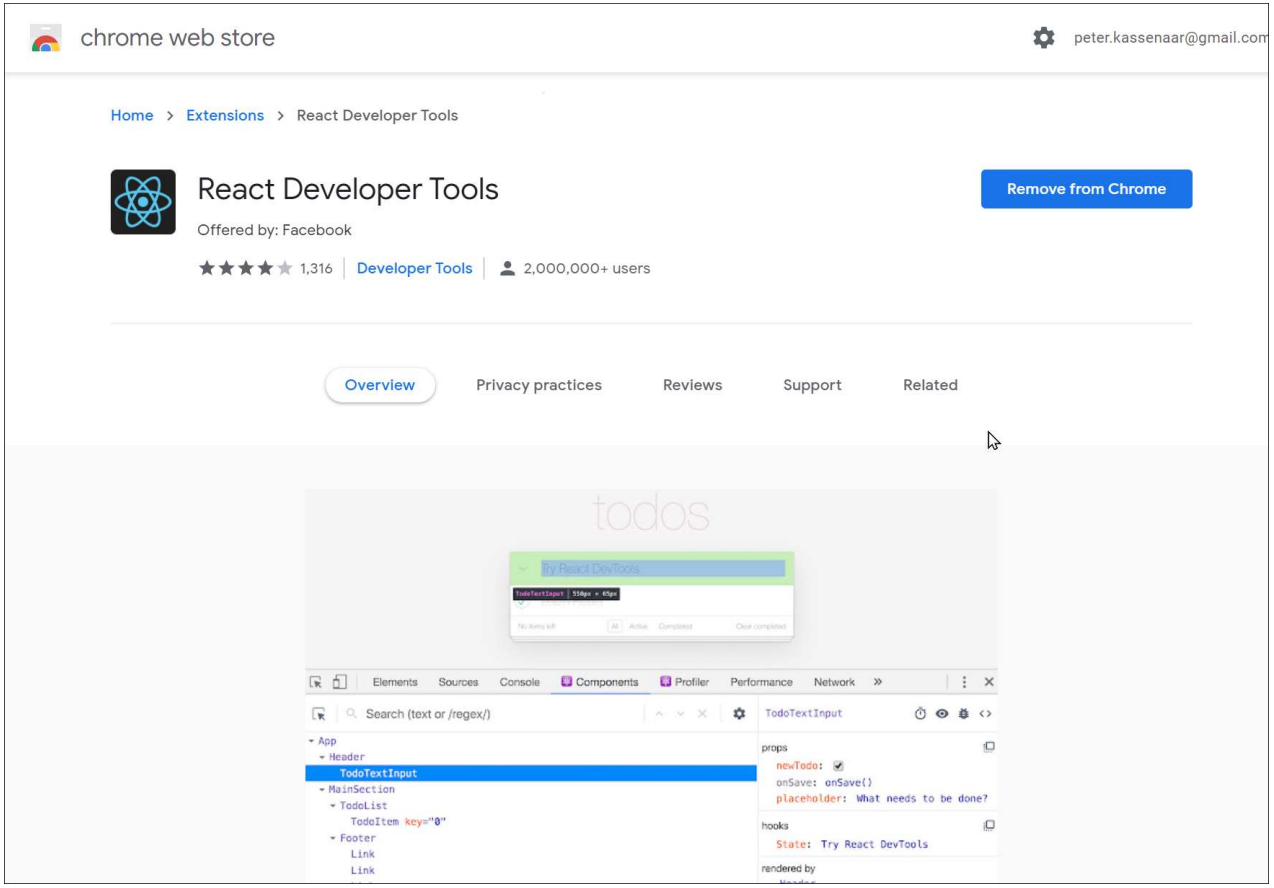
- JSX (looks like HTML, but isn't)
- State
  - `const [someVar, setSomeVar]` in functions
  - `state={…} and setState()` in classes
- Concept: "Lifting state up"
  - Statefull- / Functional- / Smart- / Container-components
  - Stateless- / Presentational- /View- / Dumb-components
- Passing props: variables and functions
  - Inline functions to trigger state changes

    (`<button onClick="() => someFunction()">`)

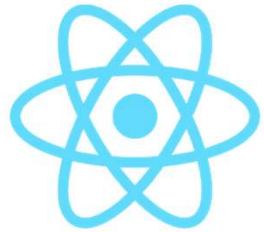
Extra – React DevTools



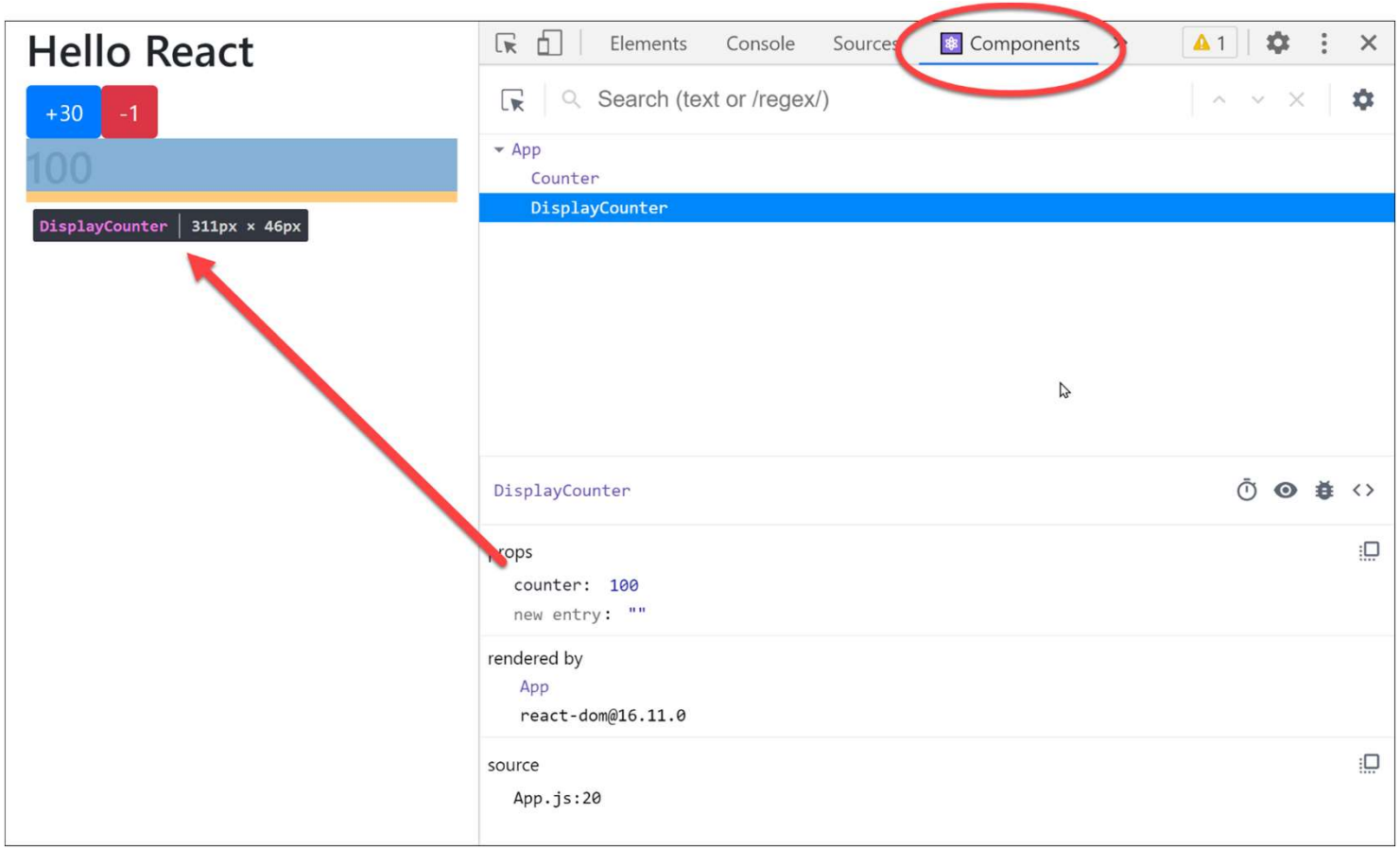
- Inspect the structure of your application in the DOM



Install in Chrome



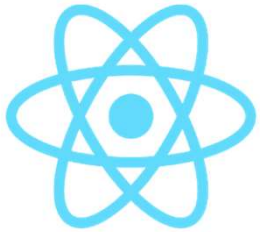
- Open Chrome DevTools and choose tab Components



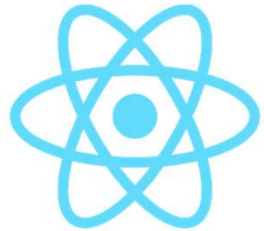
Other

Questions?

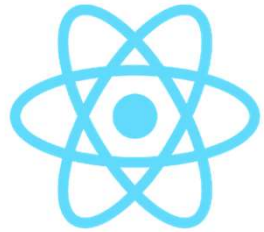
Today:



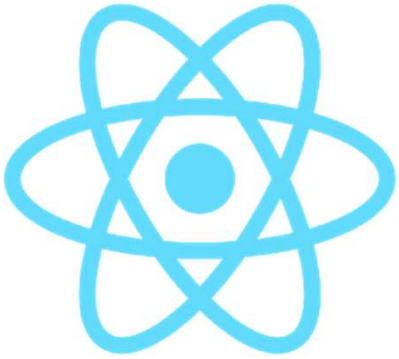
- Importing and looping over data
- Selecting specific data and showing details
- Binding to images
- Conditional rendering
- Lifecycle hooks
  - More on React Hooks, `useEffect()`
- Styling components
- Forms and handling user input
  - Concept: `Controlled~` vs. `Uncontrolled` components



Tomorrow:



- Wrapping up React Forms
- Using Http and external API's – complete Apps
  - Using your own API
- React Router
  - Basic routing
  - Routing parameters
- TypeScript Intro
- Deployment



React Fundamentals
Day #3

Start 08:45 uur