



DEV ACADEMY
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Introduction to React

Week 2, Day 1





Agenda for Today

- What is React?
- Compiling & Bundling
- Components and JSX
- Demo



What is ReactJS?

- A front-end open-source JS library used to build single-page applications (SPAs)
- Builds a DOM in the browser using a blend of HTML and JS
- Previously we built the entire DOM structure in HTML files and then served it straight to the browser
- In React, a virtual DOM is rendered inside the browser itself after our files are compiled and served



Compiling & bundling our code

- Previously in Foundations, the JS we wrote was the JS that went to the browser
- Now: TypeScript and JSX (`.tsx`)
- Now: Bundling, which reduces network requests.
- Now, the code that runs in the browser will not look like the code we write.

JSX

- Javascript Syntax eXtension
- Write HTML-*like* markup in Javascript
- Allows us to embed HTML-*like* markup easily and mix it with JS
- Single curly braces to signify JS

```
1  function ArtWorks() {
2
3  // Javascript (Typescript) logic goes BEFORE the return
4
5  return (
6
7  // HTML goes AFTER the return - can mix JS into it!
8
9    <>
10     <h1>Art Gallery</h1>
11     <ul>
12       {artworks.map(art => <li>{art.name}</li>)}
13     </ul>
14   </>
15 )
16 }
```



Components

- Components are the basic building blocks of React
- Multiple components are put together to build an User Interface.
 - A component is a function that accepts "props" and returns markup
 - Always start with a capital letter
- To call the component function and render its results, include it like an HTML Element

```
`<Widget />`
```

- To pass props to the component function, write them like HTML attributes

HTML: ``

REACT: `<Widget colour="red" />`



Writing a component

```
1  function Greeting(props) {  
2    return (  
3      <p>Hello, {props.yourName}</p>  
4    )  
5  }
```

Using a component

```
1  function GreetingContainer() {  
2    return (  
3      <>  
4        <h1>Welcome</h1>  
5        <Greeting yourName="world" />  
6      </>  
7    )  
8  }
```

Result in the browser

```
1  <h1>Welcome</h1>  
2  <p>Hello, world.</p>
```



Review & Demo

- Name one way that our projects in React will differ from the apps we built in Foundations
- How do we split up the different parts of a screen with React?
- How can we pass properties from a parent component into a child component?