ReactJS

Lecture 2

ReactJS Installation

Create React App

Create React App is a comfortable environment for learning React, and is the best way to start building a new single-page application in React.

It sets up your development environment so that you can use the latest JavaScript features, provides a nice developer experience, and optimizes your app for production.

Create React App

You'll need to have Node >= 14.0.0 and npm >= 5.6 on your machine. To create a project, run:

npx create-react-app my-app

cd my-app

npm start

Create React App

Create React App doesn't handle backend logic or databases;

it just creates a frontend build pipeline, so you can use it with any backend you want.

Under the hood, it uses Babel and webpack, but you don't need to know anything about them.

Add React to a Website

Step 1: Add a DOM Container to the HTML

First, open the HTML page you want to edit. Add an empty <div> tag to mark the spot where you want to display something with React. For example:

<!-- ... existing HTML ... -->

<div id="like_button_container"></div>

<!-- ... existing HTML ... -->

Add React to a Website

Step 2: Add the Script Tags

Next, add three <script> tags to the HTML page right before the closing </body> tag:

Add React to a Website

```
<!-- ... other HTML ... -->

 <!-- Load React. -->
 <!-- Note: when deploying, replace "development.js" with "production.min.js". -->
<script src="https://unpkg.com/react@18/umd/react.development.js" crossorigin></script>
<script src="https://unpkg.com/react-dom@18/umd/react-dom.development.js" crossorigin></script>

 <!-- Load our React component. -->
<script src="like_button.js"></script>
</body>
```

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Step 3: Create a React Component

Create a file called like_button.js next to your HTML page.

Add React to a Website

```
'use strict';
const e = React.createElement;
class LikeButton extends React.Component {
  constructor(props) {
    super(props);
    this.state = { liked: false };
  }
  render() {
    if (this.state.liked) {
      return 'You liked this.';
    }
  return e(
      'button',
      { onClick: () => this.setState({ liked: true }) },
      'Like'
    );
  }
}
```

Add React to a Website

After the starter code, add three lines to the bottom of like_button.js:

```
const domContainer = document.querySelector('#like_button_container');
const root = ReactDOM.createRoot(domContainer);
root.render(e(LikeButton));
```