

REACT

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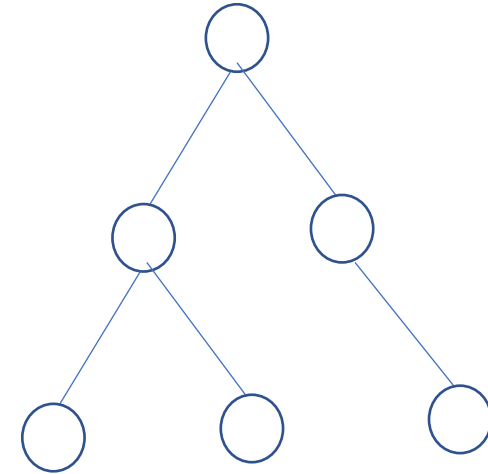


The Basics

- We have seen HTML, CSS & JavaScript.
- REACT is a library to create dynamic web pages.
- Came out of Meta.
- What was the need for REACT?

What was the need for REACT?

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Data Availability</title>
  <link rel="stylesheet" href="./map.css">
</head>
<body>
  <div class="container">
    <div class="container__left">
      <div class="section">
        </div>
      </div>
    </div>
  </body>
<!--
```

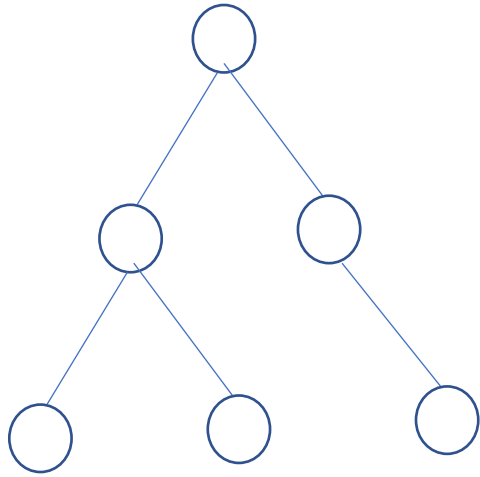


Document Object Model

The Basics

- With complex webpages managing the DOM becomes a challenge.
- REACT helps us manage the DOM.
- We use components which allows us to write reusable and manageable code.
- REACT takes care of updating the DOM elements.

Virtual DOM



- REACT knows how the DOM looked like before we changed it.
- It only updates the components that are changed.
- This is faster than updating the entire DOM.

Hello World

```
ja21121@C02DWCVPML7H REACT-Teaching % npx create-react-app hello-world
```

```
Creating a new React app in /Users/ja21121/Documents/Teaching 2023/REACT-Teaching/hello-world.
```

```
Installing packages. This might take a couple of minutes.
```

```
Installing react, react-dom, and react-scripts with cra-template...
```

```
(( )) :: idealTree:eslint: timing idealTree:node_modules/eslint Complet
```

Node version 16 & above, npm & npx

Hello World

We suggest that you begin by typing:

```
cd hello-world  
npm start
```

Hello World

Compiled successfully!

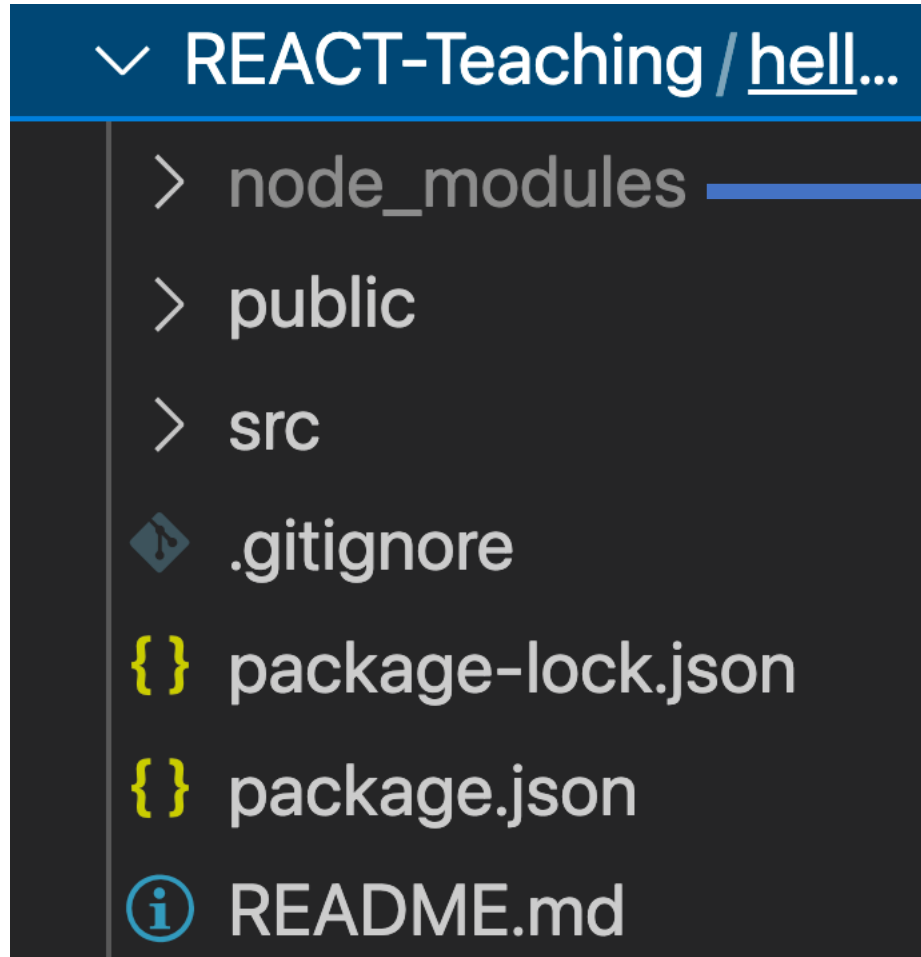
You can now view **hello-world** in the browser.

Local: <http://localhost:3000>

On Your Network: <http://192.168.0.17:3000>

Note that the development build is not optimized.
To create a production build, use `npm run build`.

Hello World



→ Packages and dependencies are here in this grey folder

Hello World

✓ public

★ favicon.ico

<> index.html

🖼️ logo192.png

🖼️ logo512.png

{ } manifest.json

≡ robots.txt

> src

🔒 .gitignore

{ } package-lock.json

{ } package.json

This file has the root DOM node. Everything inside will be managed by REACT.

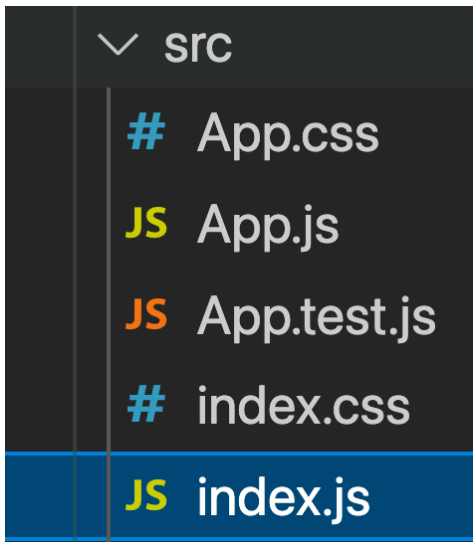
```
<body>
```

```
<noscript>You need to ena
```

```
<div id="root"></div>
```

```
<!--
```

Hello World

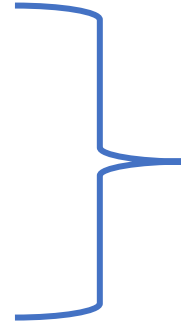


```
import React from 'react';
import ReactDOM from 'react-dom/client';
import './index.css';
import App from './App';
import reportWebVitals from './reportWebVitals';

const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
  <React.StrictMode>
    <App />
  </React.StrictMode>
);
```

Hello World

```
<React.StrictMode>  
  <App />  
</React.StrictMode>
```



Allows JavaScript
and HTML to work
together

```
1  import logo from './logo.svg';
2  import './App.css';
3
4  function App() {
5    return (
6      <div className="App">
7        <header className="App-header">
8          <img src={logo} className="App-logo" alt="logo" />
9          <p>
10             Edit <code>src/App.js</code> and save to reload.
11          </p>
12          <a
13             className="App-link"
14             href="https://reactjs.org"
15             target="_blank"
16             rel="noopener noreferrer"
17          >
18             Learn React
19          </a>
20        </header>
21      </div>
22    );
23  }
24
25  export default App;
```

EXPORT OUR COMPONENTS


Hello World



Edit `src/App.js` and save to reload.

[Learn React](#)

Useful VS Code Extensions




Prettier - Code formatter

✓ Prettier | 30,232,858 | ★★★★★

Code formatter using prettier

[Disable](#) [Uninstall](#) ⚙️

This extension is enabled globally.



Simple React Snippets

✓ Burke Holland | 2,608,437 | ★

Dead simple React snippets you will actually

[Disable](#) [Uninstall](#) ⚙️

This extension is enabled globally.

Happy REACT - ing