

# WEEK 2

## Jobsheet 2

Lecturer

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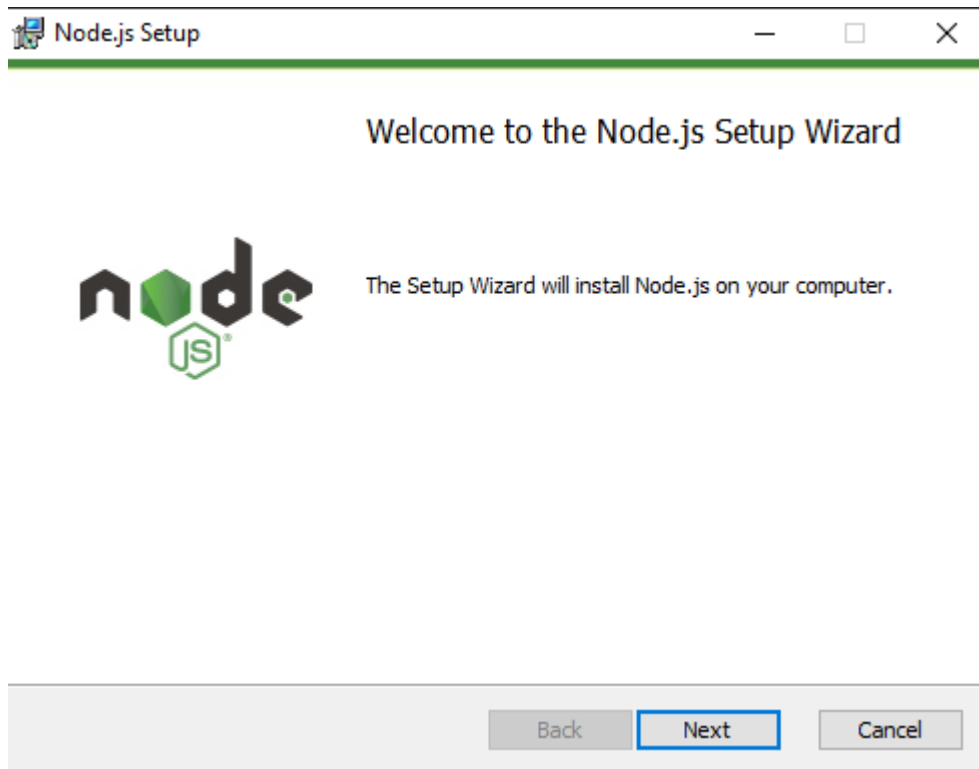
Abdul Rohman / 1941720022

D4 T.Informatika (3H)

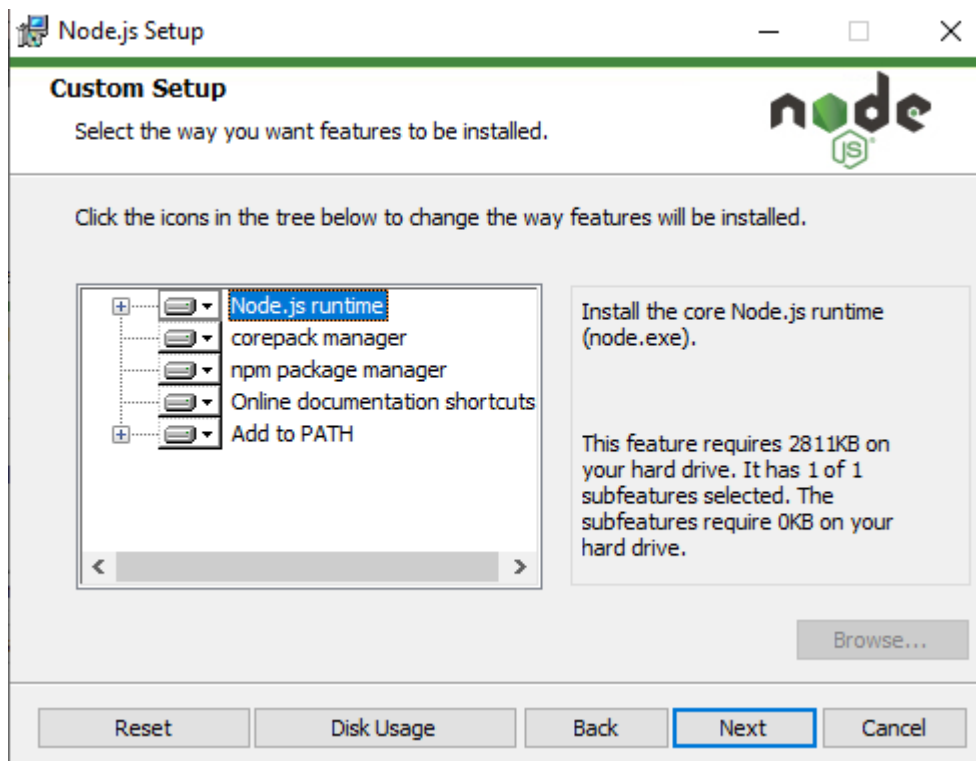
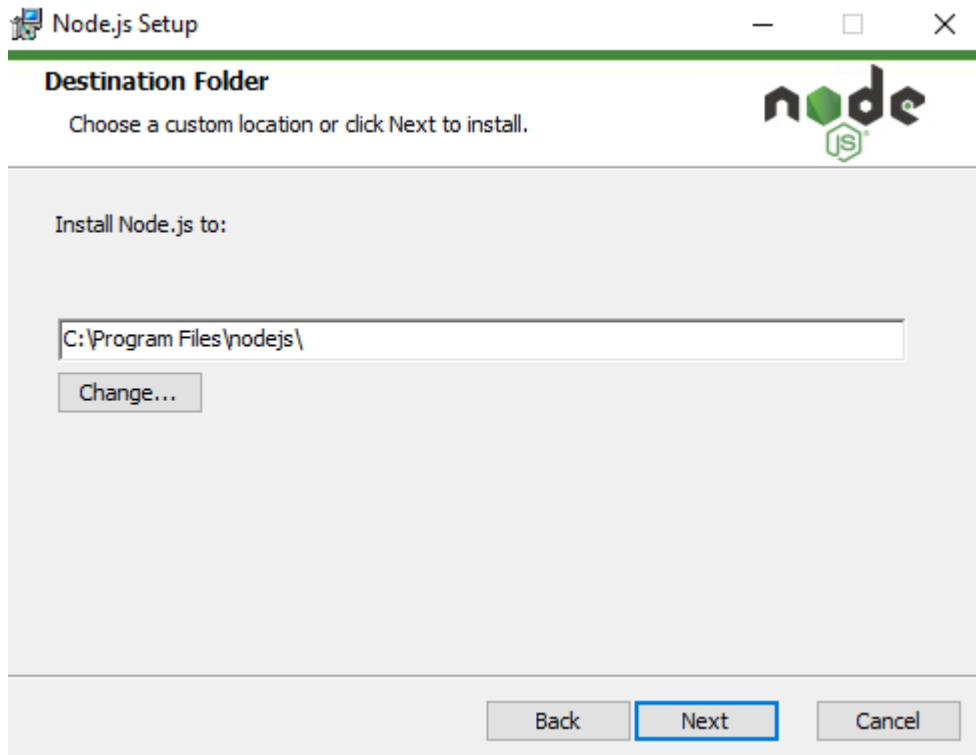
**PROGRAM STUDI D-IV TEKNIK INFORMATIKA  
JURUSAN TEKNOLOGI INFORMASI  
POLITEKNIK NEGERI MALANG  
2022**

## Experiment

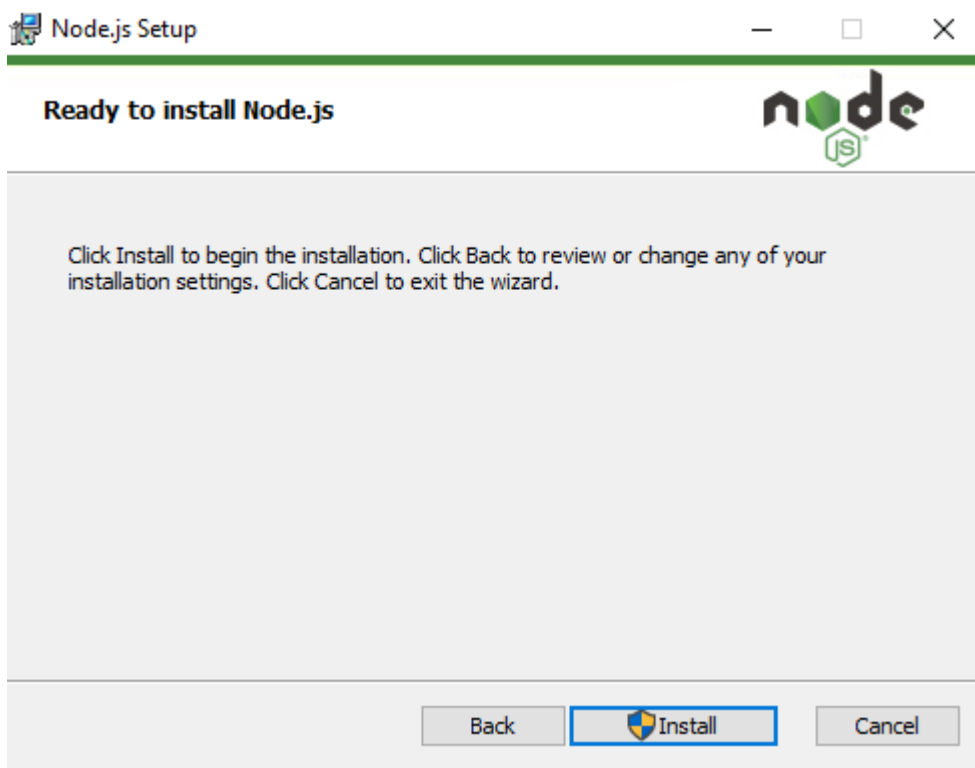
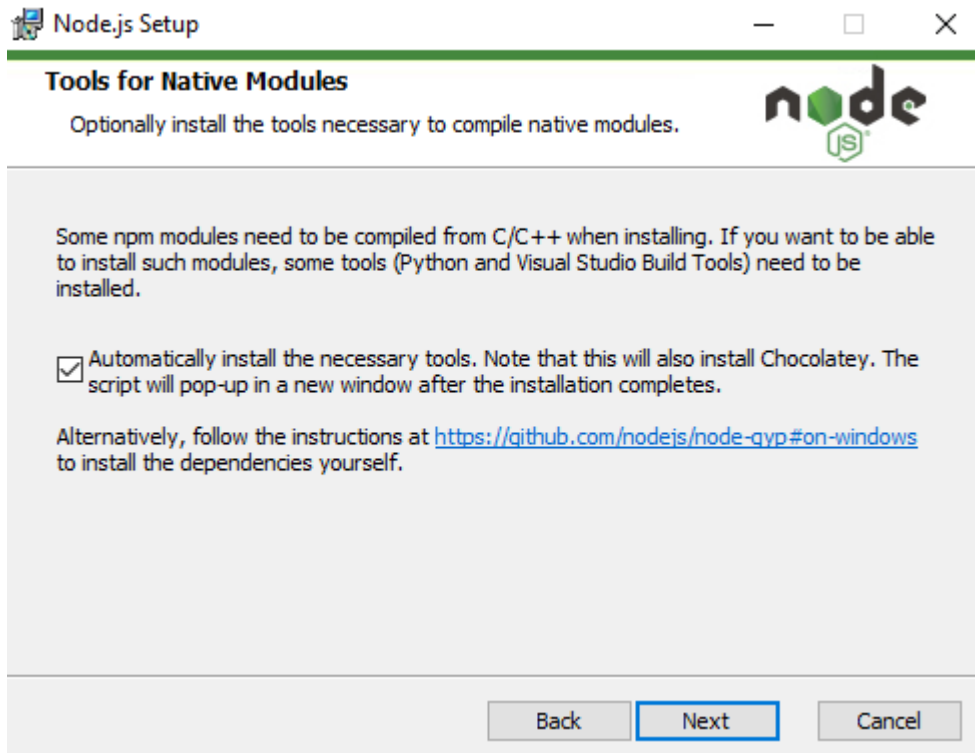
### a. NodeJS Installation

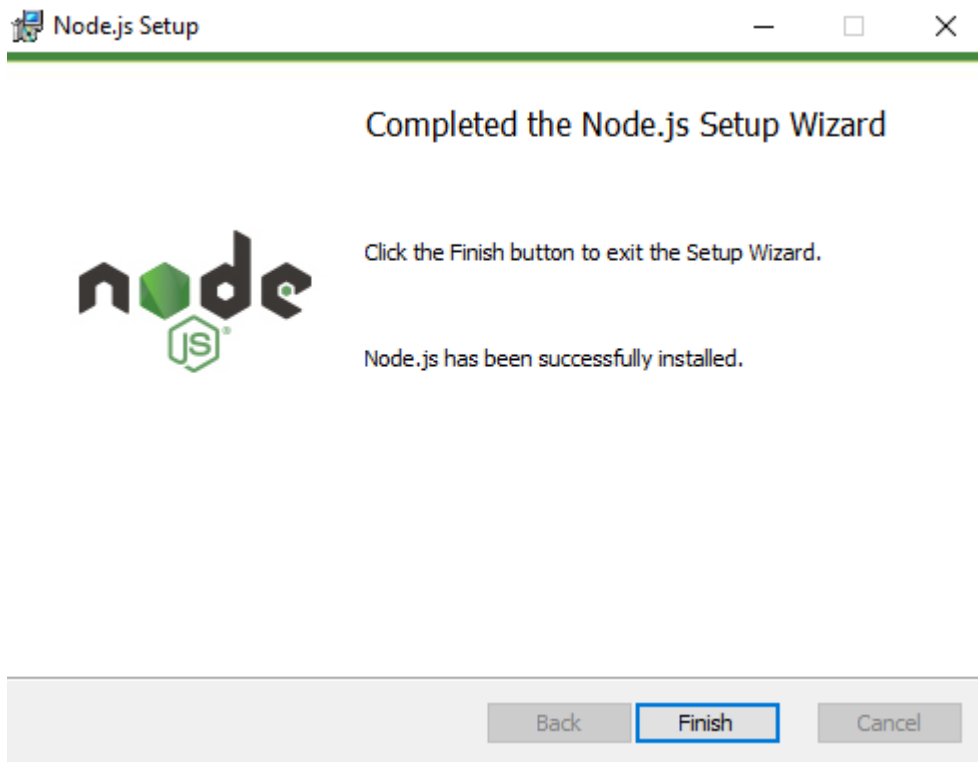


## Framework-Based Programming



## Framework-Based Programming



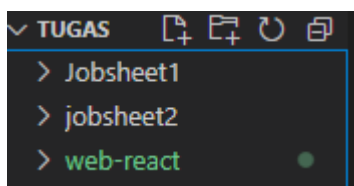


Check Node and Npm

```
PS C:\WINDOWS\system32> npm -v
8.3.0
PS C:\WINDOWS\system32> node -v
v16.13.0
PS C:\WINDOWS\system32> 
```

### b. Adding React to the website

Make a folder learn-react/week-2/web-react



Create index.html file

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>
      Learning ReactJS
    </title>
  </head>
  <body>
    <p>
      Hello World
    </p>
    <div id="like_button_container"></div>
    <script src="https://unpkg.com/react@umd/react.development.js" crossorigin="</script>
    <script src="https://unpkg.com/react-dom@umd/react-dom.development.js" crossorigin="</script>
    <script src="like_button.js"></script>
  </body>
</html>
```

After that, create a js file with the name like\_button.js

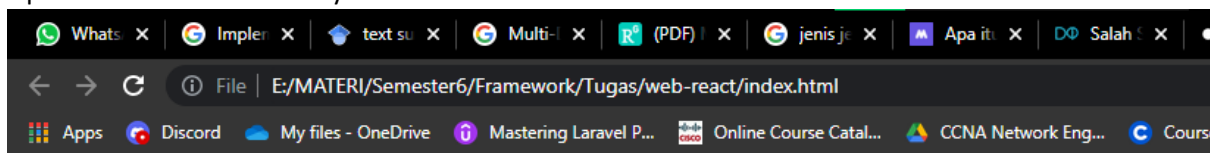
```
const e = React.createElement;

function LikeButton() {
  //Display a "Like" <button>
  return e(
    'button',
    {
      onClick: () => alert('success')
    },
    'Like'
  );
}

// const button=()->{
//   return <button>Like</button>
// }

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

Open the index.html file in your browser



## C. React-app Installation



## Framework-Based Programming

### template.html

Open the index.html file in your browser

If the position is already in the folder, type the following command:

```
MINGW64:/e/MATERI/Semester6
$ create-react-app web-reactku

Creating a new React app in E:\MATERI\Semester6\web-reactku.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...

added 1366 packages in 4m

169 packages are looking for funding
  run `npm fund` for details

Initialized a git repository.

Installing template dependencies using npm...
npm WARN deprecated source-map-resolve@0.6.0: See https://github.com/lydell/source-map-resolve#deprecated
added 38 packages in 19s

169 packages are looking for funding
  run `npm fund` for details
Removing template package using npm...

removed 1 package, and audited 1404 packages in 8s

169 packages are looking for funding
  run `npm fund` for details

6 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.

Created git commit.
```


Wait a minute, it will automatically open a web page with the address localhost:3000. If there is an error type the following command

```
We suggest that you begin by typing:

  cd jobsheet2
  npm start

Happy hacking!

Abdul Rohman@Asus456Ux MINGW64 /e/MATERI/Semester6/Framework/Tugas (master)
$
```

Now, try to open the folder with VS Code. Click the File menu  Open Folder, then find the folder

# Framework-Based Programming

The screenshot shows the Visual Studio Code editor with the `index.html` file open. The file contains the following code:

```

<!--
  name="description"
  content="Web site created using create-react-app"
-->
<!--
  manifest.json provides metadata used when your web app is installed on a
  user's mobile device or desktop. See https://developers.google.com/web/fundamentals/web-app-manifest/
-->
<!--
  Notice the use of %PUBLIC_URL% in the tags above.
  It will be replaced with the URL of the 'public' folder during the build.
  Only files inside the 'public' folder can be referenced from the HTML.

  Unlike "/favicon.ico" or "favicon.ico", "%PUBLIC_URL%/favicon.ico" will
  work correctly both with client-side routing and a non-root public URL.
  Learn how to configure a non-root public URL by running 'npm run build'.
-->
<!--
  <title>React App</title>
  </head>
  <body>

```

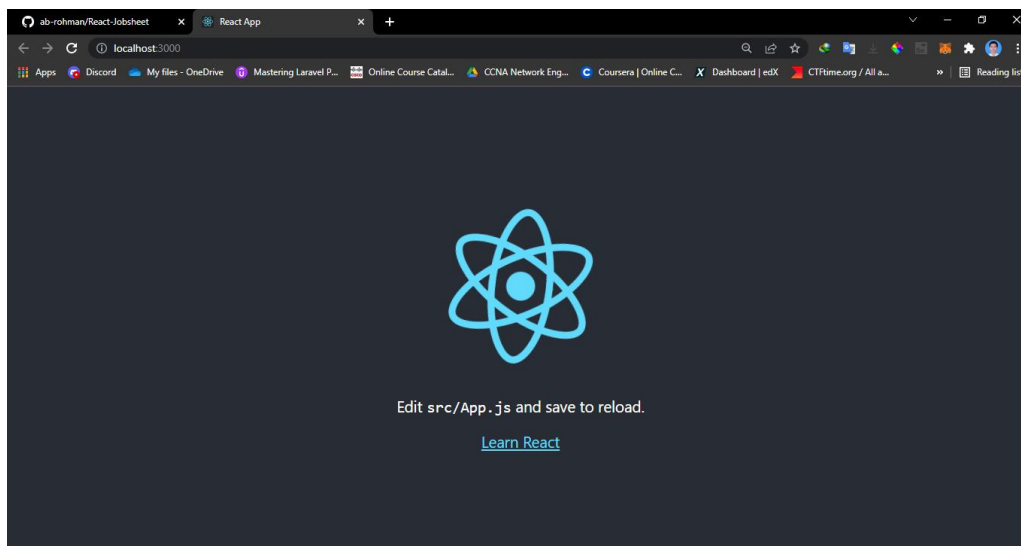
The terminal output shows the build process:

```

./src/App.css 2.72 KiB [built] [code generated]
./node_modules/css-loader/dist/cjs.js??ruleSet[1].rules[1].oneOf[5].use[1]!./node_modules/postcss-loader/dist/cjs.js??ruleSet[1].rules[1].oneOf[5].use[2]!./node_modules/source-map-loader/dist/cjs.js!./src/App.css 2 KiB [built] [code generated]
modules by path ./src/*.js 5.71 KiB
./src/index.js 1.8 KiB [built] [code generated]
./src/App.js 2.51 KiB [built] [code generated]
./src/reportWebVitals.js 1.39 KiB [built] [code generated]
./src/logo.svg 3.61 KiB [built] [code generated]
webpack 5.70.0 compiled successfully in 26402 ms

```

To run it, The browser will automatically open



## d. React Project Structure

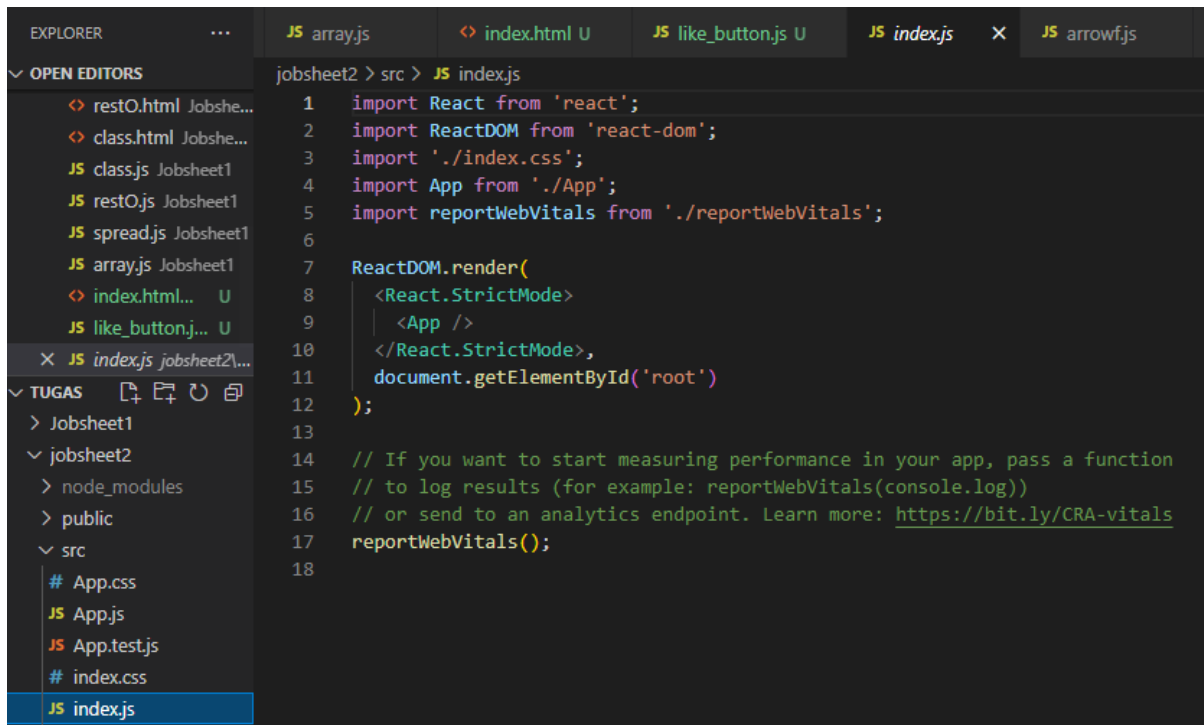
The first time react will run in the src index.js folder on line 7

- There is a rendering process code in the DOM
- In the rendering parameter there are two
- ReactDOM.render(element, container[, callback])
- <https://reactjs.org/docs/react-dom.html#render>

index.js



## Framework-Based Programming

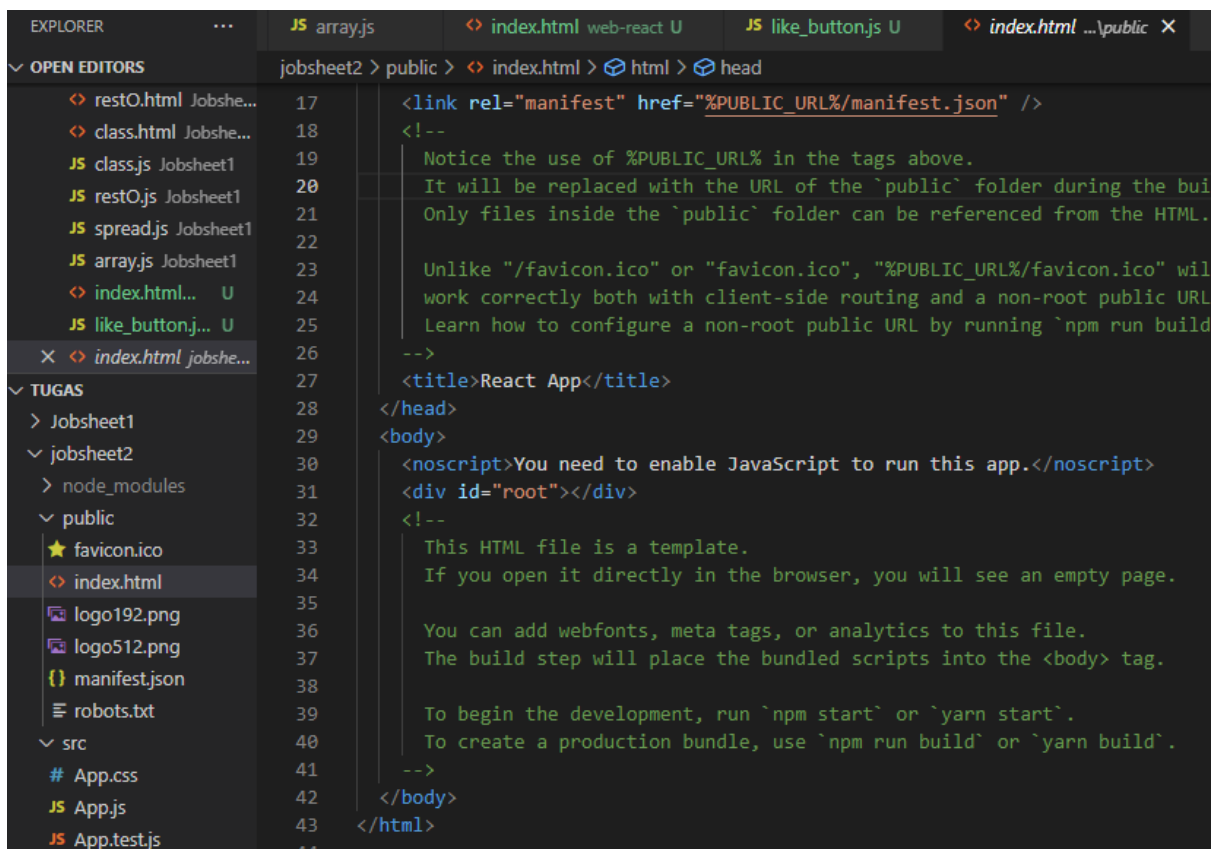


```

1  import React from 'react';
2  import ReactDOM from 'react-dom';
3  import './index.css';
4  import App from './App';
5  import reportWebVitals from './reportWebVitals';
6
7  ReactDOM.render(
8    <React.StrictMode>
9      <App />
10   </React.StrictMode>,
11   document.getElementById('root')
12 );
13
14 // If you want to start measuring performance in your app, pass a function
15 // to log results (for example: reportWebVitals(console.log))
16 // or send to an analytics endpoint. Learn more: https://bit.ly/CRA-vitals
17 reportWebVitals();
18

```

### index.html

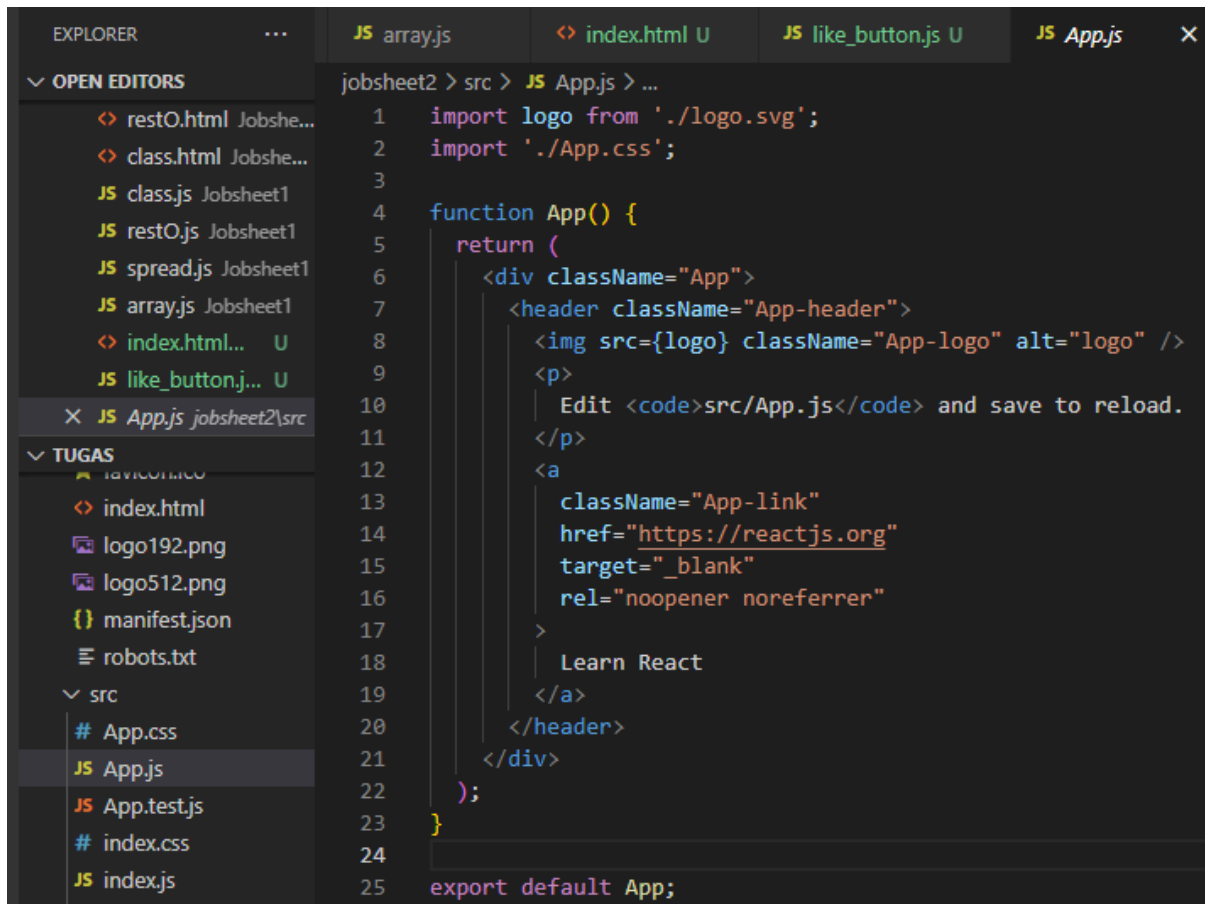


```

17 <link rel="manifest" href="%PUBLIC_URL%/manifest.json" />
18 <!--
19 Notice the use of %PUBLIC_URL% in the tags above.
20 It will be replaced with the URL of the `public` folder during the build.
21 Only files inside the `public` folder can be referenced from the HTML.
22
23 Unlike "/favicon.ico" or "favicon.ico", "%PUBLIC_URL%/favicon.ico" will
24 work correctly both with client-side routing and a non-root public URL.
25 Learn how to configure a non-root public URL by running `npm run build` or `yarn run build`.
26 -->
27 <title>React App</title>
28 </head>
29 <body>
30   <noscript>You need to enable JavaScript to run this app.</noscript>
31   <div id="root"></div>
32   <!--
33     This HTML file is a template.
34     If you open it directly in the browser, you will see an empty page.
35
36     You can add webfonts, meta tags, or analytics to this file.
37     The build step will place the bundled scripts into the <body> tag.
38
39     To begin the development, run `npm start` or `yarn start`.
40     To create a production bundle, use `npm run build` or `yarn build`.
41   -->
42 </body>
43 </html>
44

```

### App.js

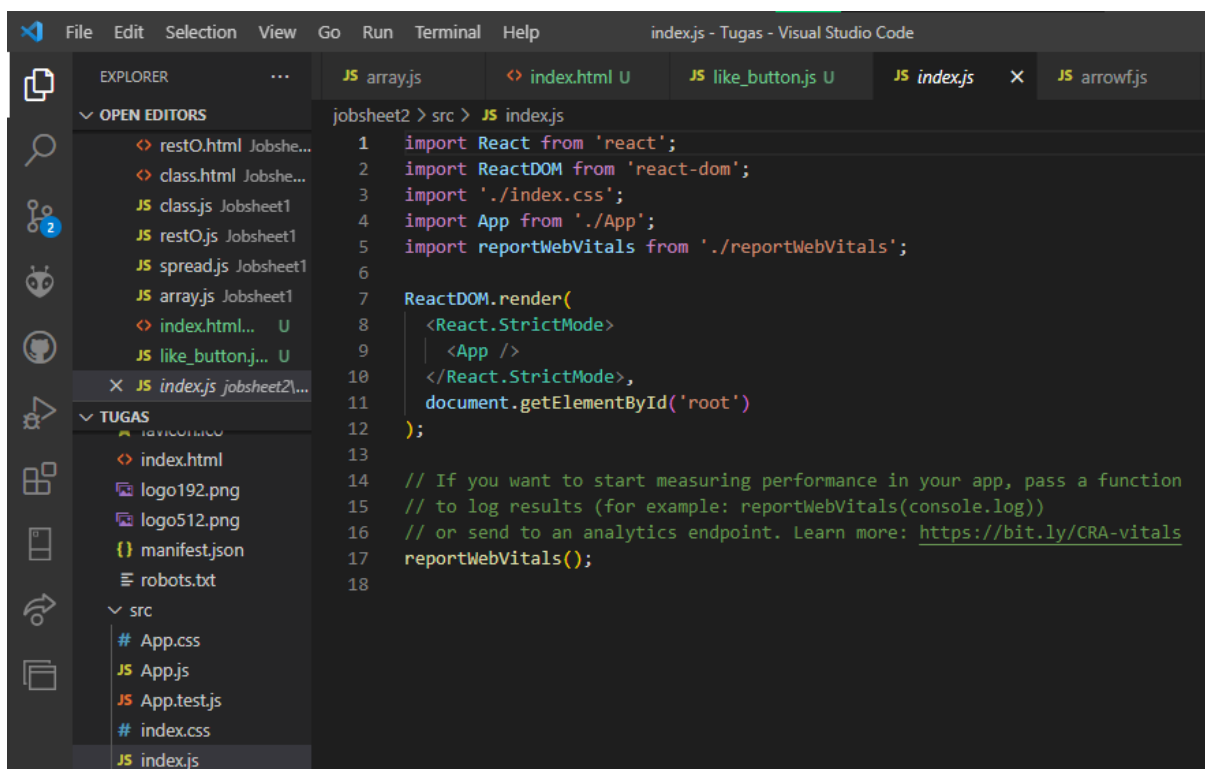


```

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;

```

## Index.js



```

1  import React from 'react';
2  import ReactDOM from 'react-dom';
3  import './index.css';
4  import App from './App';
5  import reportWebVitals from './reportWebVitals';
6
7  ReactDOM.render(
8    <React.StrictMode>
9      <App />
10    </React.StrictMode>,
11    document.getElementById('root')
12  );
13
14  // If you want to start measuring performance in your app, pass a function
15  // to log results (for example: reportWebVitals(console.log))
16  // or send to an analytics endpoint. Learn more: https://bit.ly/CRA-vitals
17  reportWebVitals();
18

```

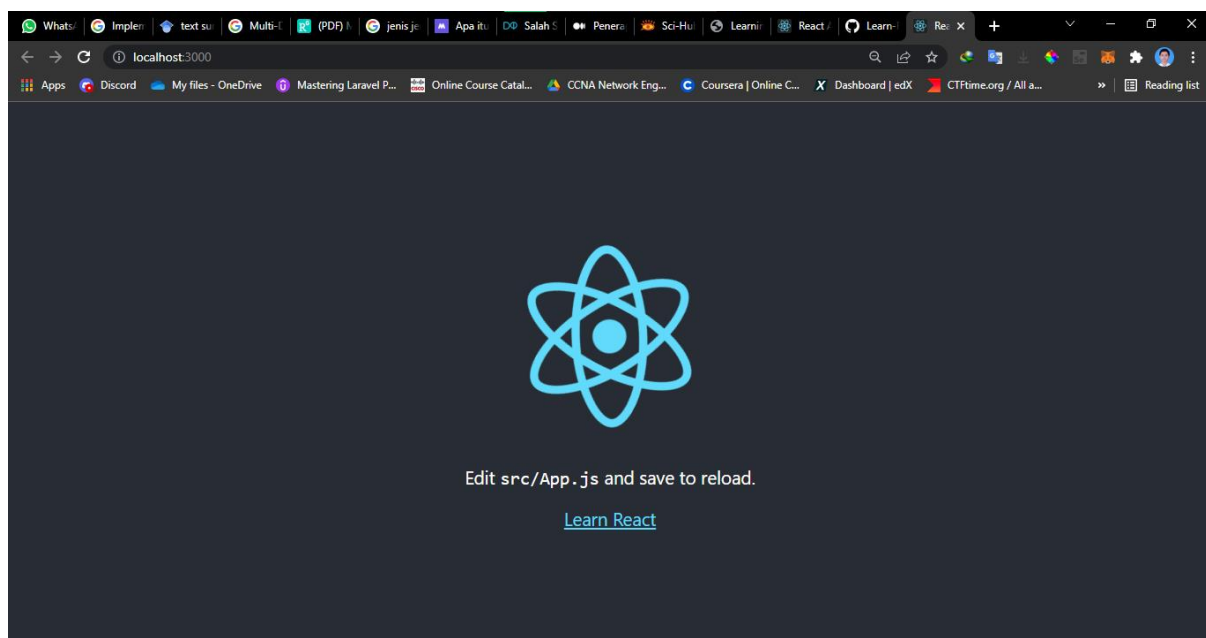
## e. Creating Hello Components Using Arrow Function

## Framework-Based Programming

1. Open the index.js file in src and add an arrow function with the name Hello

```
1 import React from "react";
2 import ReactDOM from "react-dom";
3 import "../index.css";
4 import App from "../App";
5 import reportWebVitals from "../reportWebVitals";
6
7 const Hello = () => {
8   return <p>Hello!</p>;
9 };
10
11 ReactDOM.render(
12   <React.StrictMode>
13     <App />
14   </React.StrictMode>,
15   document.getElementById("root")
16 );
17
18 // If you want to start measuring performance in your app, pass a function
19 // to log results (for example: reportWebVitals(console.log))
20 // or send to an analytics endpoint. Learn more: https://bit.ly/CRA-vitals
21 reportWebVitals();
```

2. Run and open your browser



# THANK YOU