

Assignment Week 2

Framework-Based Programming



Oleh:

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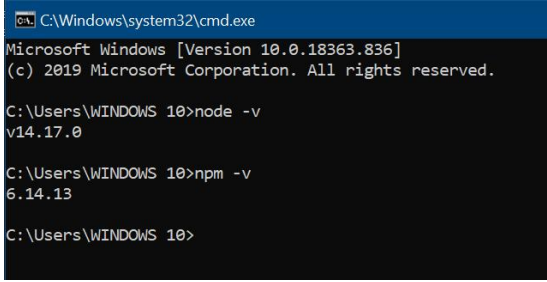
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**PROGRAM STUDI D-IV TEKNIK INFORMATIKA
JURUSAN TEKNOLOGI INFORMASI
POLITEKNIK NEGERI MALANG**

2022

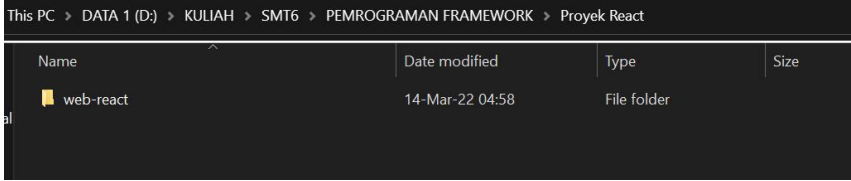
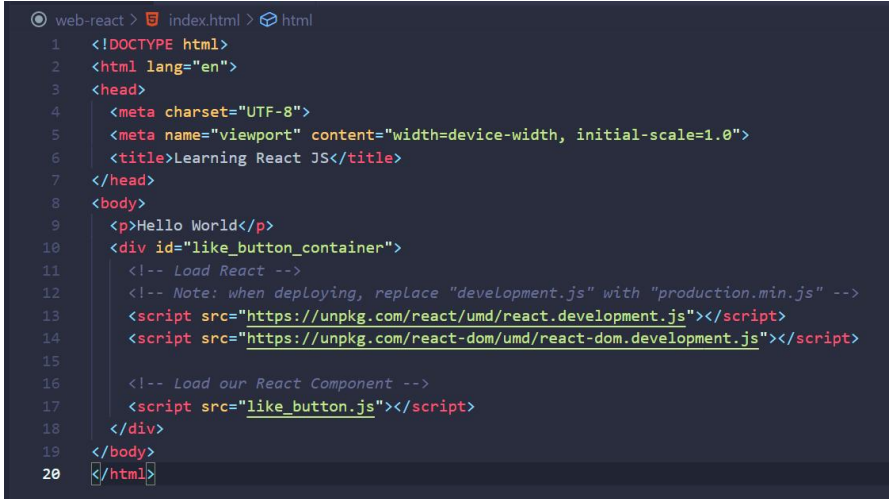
Link Repository : <https://github.com/widiarsaf/web-reactku>

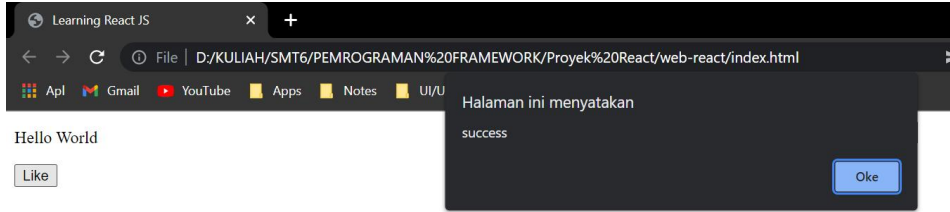
A. NodeJS Installation

No	Step
1	Because I've installed node js before, so I'm just verifying the installation
2	<p>Installation Verification</p> <p>Open a command prompt or PowerShell, and enter the command <code>node -v</code></p> <p>The system will display the version of Node.js installed on your system. Next do the same for NPM by entering the command <code>npm -v</code></p> 

B. Adding React to the website

In addition to using the Command Line Interface (CLI), we can also add react to the website.

No	Step
1	<p>Make a folder <code>web-react</code>, to save the folder of the project</p> 
2	<p>Create <code>index.html</code> file</p> 

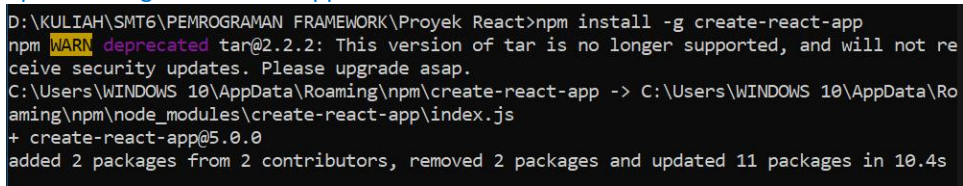
3	<p>After that, create a js file with the name like_button.js</p> <pre> web-react > js like_button.js > ... 1 const e=React.createElement; 2 3 function LikeButton() { 4 // Display a "Like" <button> 5 return e(6 'button',{ 7 onClick:() =>alert('success') 8 }, 9 'Like' 10) 11 } 12 13 // Const button = () =>{ 14 // return <button>Like</button> 15 // } 16 17 const domContainer=document.querySelector('#like_button_container'); 18 ReactDOM.render(e(LikeButton),domContainer); </pre>
4	<p>Open the index.html file in your browser</p> 

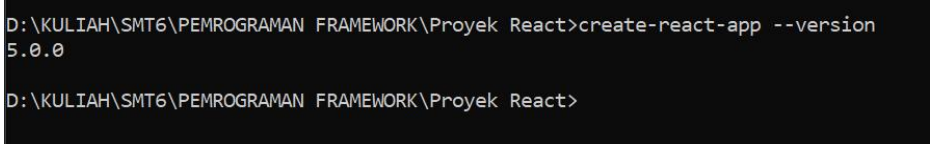
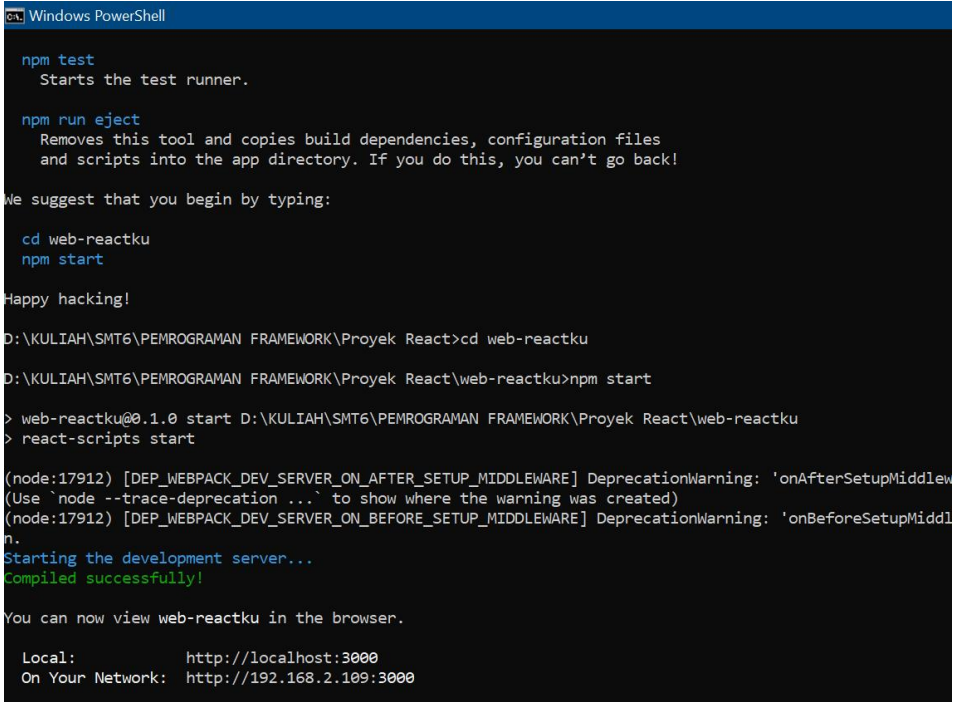
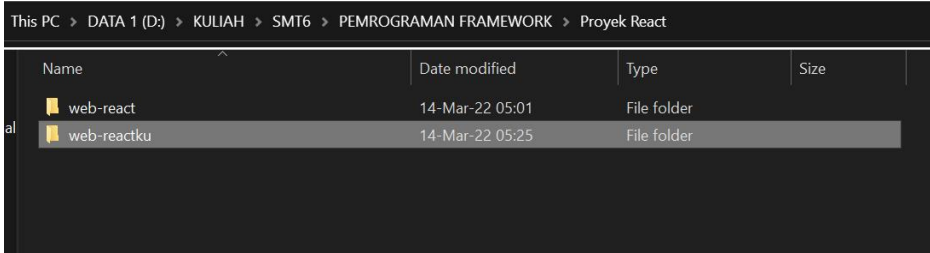
C. React-app Installation

create-react-app is the program used to create React projects. This program will generate all the things we need for the initial project. Starting from package.json, [index.html](#) file, [index.js](#) file, and so on.

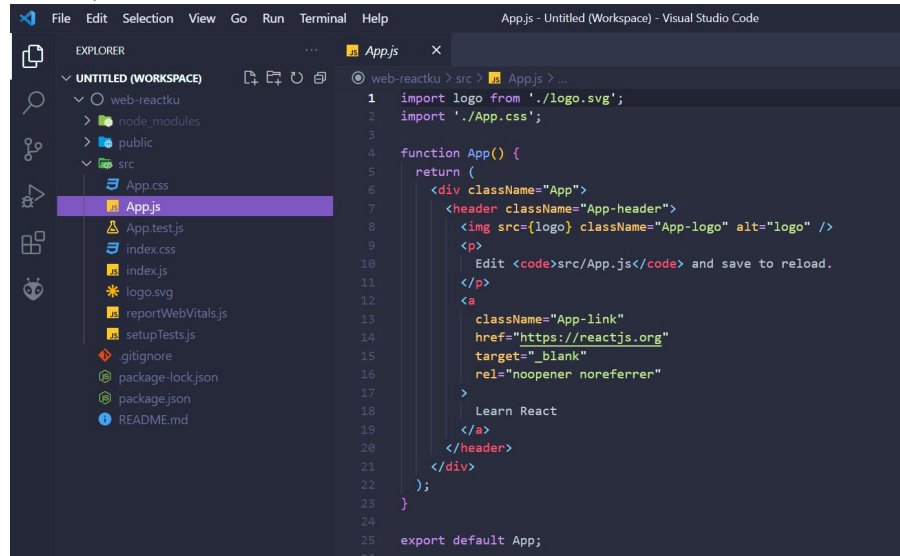
There are two ways to use it, which are as follows:

- Install it first, then use it
- Used directly with NPX

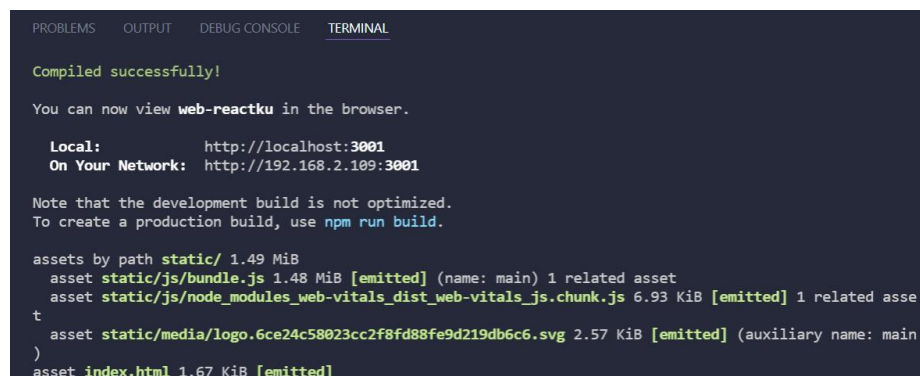
No	Step
1	Specify the location to install react
2	<p>If the position is already in the folder, type the following command:</p> <pre> npm install -g create-react-app </pre> 

	<p>To check whether the installation was successful or not, type the following command:</p> <pre>create-react-app --version</pre> 
3	<p>Type the following command to to execute the defined file in it:</p> <pre>create-react-app web-reactku cd web-reactku npm start</pre> 
4	<p>If the project has been created, there will be a new folder called web-reactku on the folder where the command was executed.</p> 

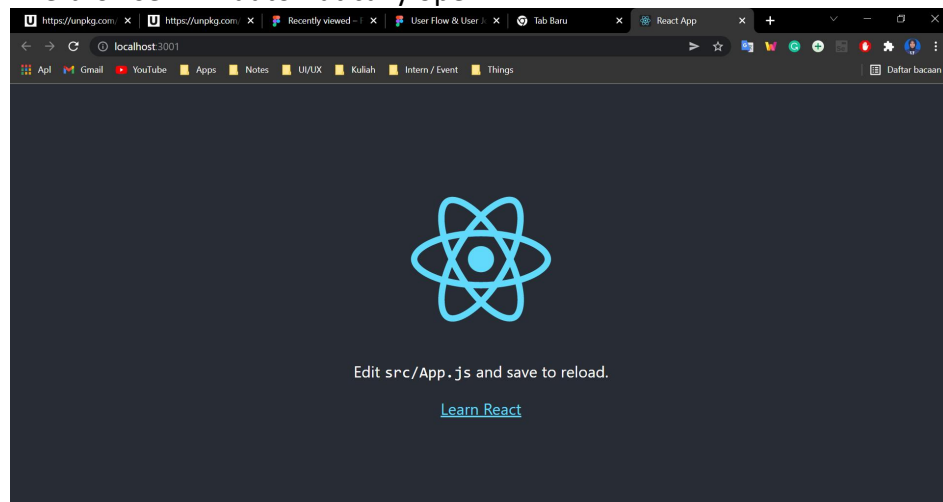
- 5 Now, try to open the folder with VS Code. Click the File menu Open Folder, then find the folder.



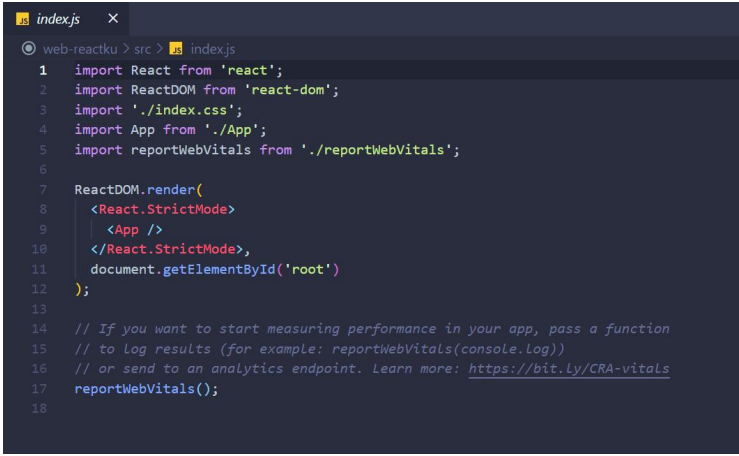
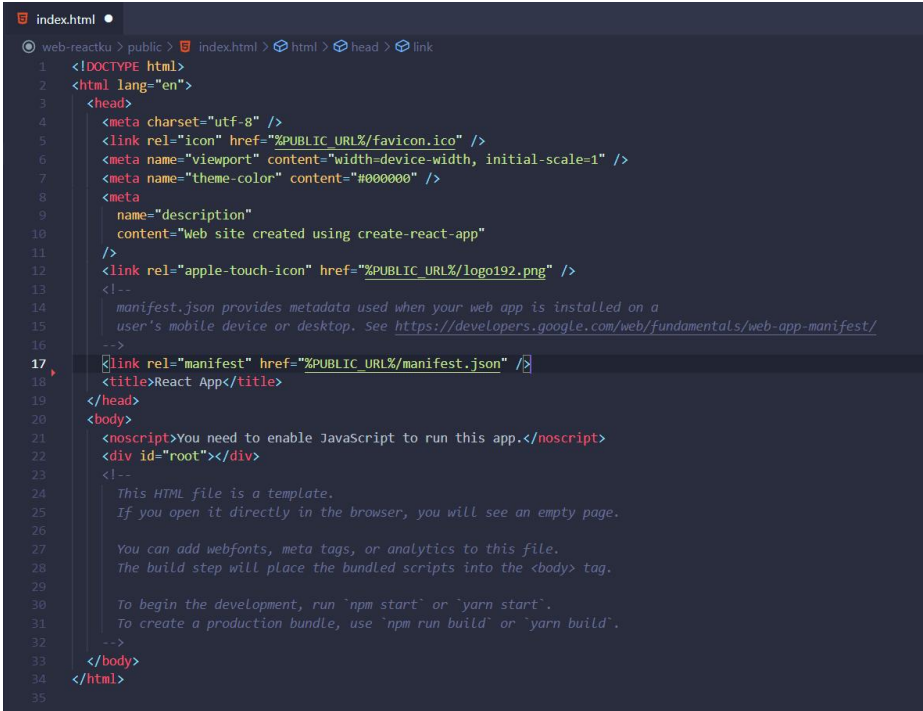
- 6 To run it, type the following command in Terminal:
`npm start`



The browser will automatically open



D. React Project Structure

No	Step
1	<p>The first time react will run in the src index.js folder on line 7</p> <p>There is a rendering process code in the DOM</p> <p>In the rendering parameter there are two</p> <p>ReactDOM.render(element, container[, callback])</p> <p>https://reactjs.org/docs/react-dom.html#render</p> <p>index.js</p>  <pre>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</pre>
2	<p>So on line 7 there are 2 to be rendered</p> <p>Component App (in src/ App.js)</p> <p>Id=root in index.html(in public/index.html) on line 31</p> <p>index.html</p>  <pre>1 <!DOCTYPE html> 2 <html lang="en"> 3 <head> 4 <meta charset="utf-8" /> 5 <link rel="icon" href="%PUBLIC_URL%/favicon.ico" /> 6 <meta name="viewport" content="width=device-width, initial-scale=1" /> 7 <meta name="theme-color" content="#000000" /> 8 <meta 9 name="description" 10 content="Web site created using create-react-app" 11 /> 12 <link rel="apple-touch-icon" href="%PUBLIC_URL%/logo192.png" /> 13 <!-- 14 manifest.json provides metadata used when your web app is installed on a 15 user's mobile device or desktop. See https://developers.google.com/web/fundamentals/web-app-manifest/ 16 --> 17 <link rel="manifest" href="%PUBLIC_URL%/manifest.json" /> 18 <title>React App</title> 19 </head> 20 <body> 21 <noscript>You need to enable JavaScript to run this app.</noscript> 22 <div id="root"></div> 23 <!-- 24 This HTML file is a template. 25 If you open it directly in the browser, you will see an empty page. 26 27 You can add webfonts, meta tags, or analytics to this file. 28 The build step will place the bundled scripts into the <body> tag. 29 30 To begin the development, run `npm start` or `yarn start`. 31 To create a production bundle, use `npm run build` or `yarn build`. 32 --> 33 </body> 34 </html> 35</pre>

- 3 Components/functions App in src/App.js, then in index.js on line 4 the App is imported

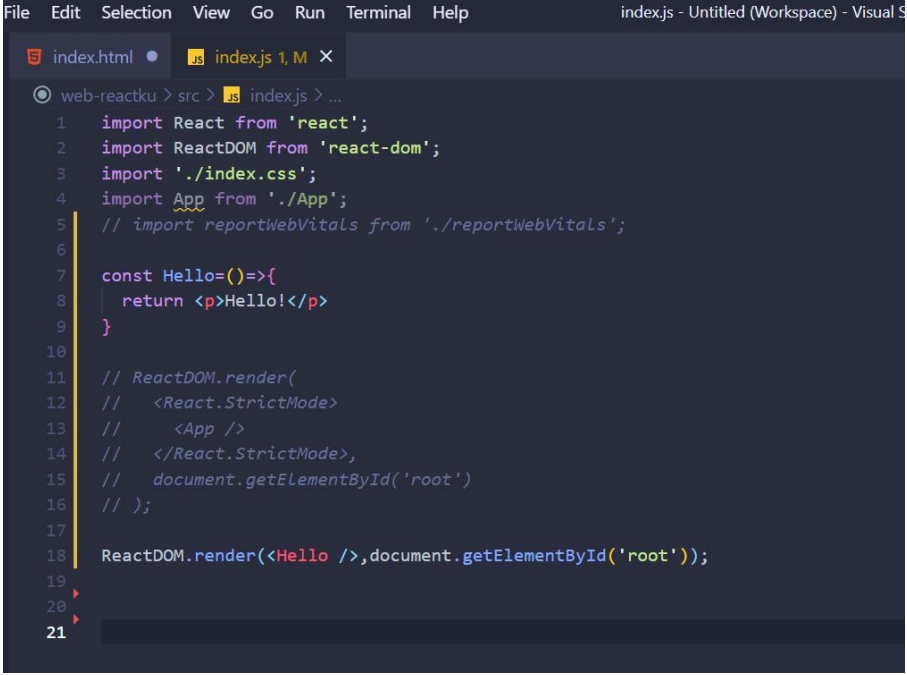
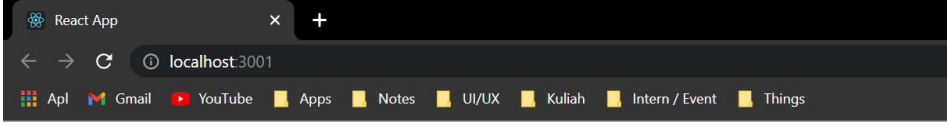
App.js

```
index.html • js App.js ×
web-reactku > src > js 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;
26
```

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

No	Step
1	<p>Open the index.js file in src and add an arrow function with the name Hello</p>  <pre>File Edit Selection View Go Run Terminal Help index.js - Untitled (Workspace) - Visual S index.html • JS index.js 1.M X web-reactku > src > JS 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 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 ReactDOM.render(<Hello />,document.getElementById('root')); 19 20 21</pre>
2	<p>Run and open your browser</p>  <p>Hello!</p>