

# **Assignment Week 3**

## **Framework Based Programming**



**Oleh:**

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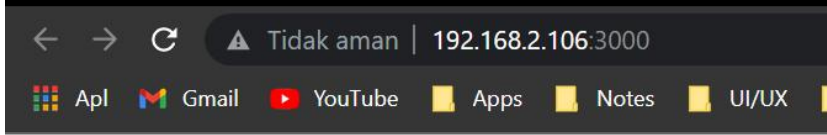
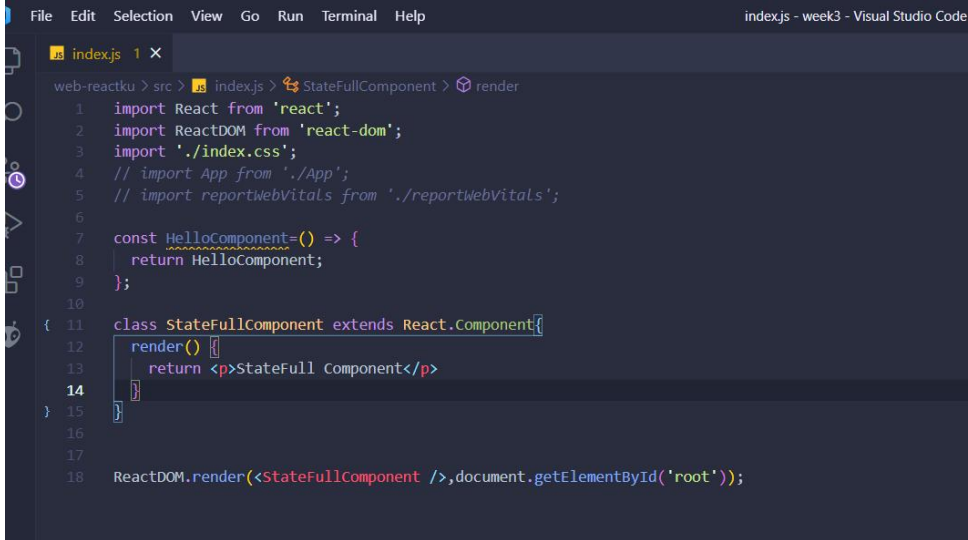
**PROGRAM STUDI D-IV TEKNIK INFORMATIKA  
JURUSAN TEKNOLOGI INFORMASI  
POLITEKNIK NEGERI MALANG**

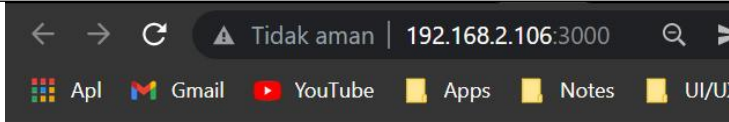
**2022**

## Experiment

### A. Creating Stateless & Stateful Component

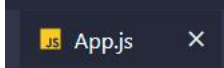
By reusing our previous project, create Hello!, we will create a component using a stateless component.

No	Step
1	Open the react page by using npm start
2	Open index.j
3	<p>Create a new function with hello component (stateless component)</p> <pre>web-reactku &gt; src &gt; <b>js</b> index.js &gt; ... 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 HelloComponent=() =&gt; { 8        return &lt;p&gt;Hello Component!&lt;/p&gt;; 9      }; 10 11    12  ReactDOM.render(&lt;HelloComponent /&gt;,document.getElementById('root'));</pre>
4	<p>Run in the browser and note the result</p>  <p>Hello Component!</p>
5	<p>Create a class component / stateful component by calling react .component and call StateFullComponent in react</p> 

	 <p>StateFull Component</p>
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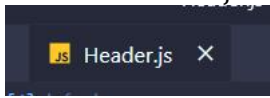
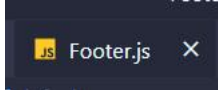
## B. Creating Props

Props or properties are used to hold values that will later be sent to a Component.

No	Step
1	<p>Write the following program code</p> <pre> web-reactku &gt; src &gt; .js App.js &gt; ... 1  import React,{Component} from 'react'; 2  import Header from './Header'; 3  import Footer from './Footer'; 4  import List from './List'; 5  class App extends Component { 6    render() { 7      return ( 8        &lt;div&gt; 9          &lt;Header /&gt; 10         &lt;h1&gt;Component from Class App&lt;/h1&gt; 11         &lt;List /&gt; 12         &lt;Footer title='Footer Page' name='JTI' /&gt; 13       &lt;/div&gt; 14     ); 15   } 16 } 17 export default App; 18   </pre>
2	<p>Save it to App.js file.</p> 

## C. Displaying Props

No	Step
1	<p>Write the following program code</p> <pre> web-reactku &gt; src &gt; .js Header.js &gt; [🔍] default 1  import React, {Component} from "react"; 2  // Class Component Header 3  class Header extends Component { 4    render() { 5      return ( 6        &lt;div&gt; 7          &lt;h2&gt;Component from Class Header&lt;/h2&gt; 8        &lt;/div&gt; 9      ); 10   } 11 } 12 export default Header;  </pre>

2	<p>Save it to Header.js file</p> 
3	<p>Write the following program code</p> <pre> web-reactku &gt; src &gt; JS Footer.js &gt; [?] default 1  import React from "react"; 2  // Component using Function 3  const Footer=(props) =&gt; { 4      return ( 5          &lt;div&gt; 6              &lt;h3&gt;Footer Page&lt;/h3&gt; 7              &lt;h3&gt;This component is created using Function not Class&lt;/h3&gt; 8              &lt;p&gt;This value is returned from props: {props.title} &lt;/p&gt; 9              &lt;p&gt;My name is {props.name} &lt;/p&gt; 10             &lt;/div&gt; 11         ); 12     }; 13     export default Footer; </pre>
4	<p>Save it to Footer.js file</p> 
5	<p>In the program code, we pass a parameter props to the function (anonymous function), then we will use that parameter to access the variables sent from the App.js file.</p> <hr/> <p><b>Component from Class Header</b></p> <p><b>Component from Class App</b></p> <p><b>Footer Page</b></p> <p><b>This component is created using Function not Class</b></p> <p>This value is returned from props: Footer Page</p> <p>My name is JTI</p>

## D. Props on Class Component

Example:

We want to display multiple images in the component list, where the component list will use the component images.

## Component List

No	Step
1	<p>Write the following program code</p> <pre> web-reactku &gt; src &gt; List.js &gt; default 1  import React,{Component} from "react"; 2  import Image from "../Image"; 3  // Class Component List 4  class List extends Component { 5      render() { 6          return ( 7              &lt;div&gt; 8                  &lt;ol&gt; 9                      &lt;li&gt; 10                         One 11                         &lt;Image linkImg="https://s3-ap-southeast1.amazonaws.com/niomic/img/sample/food1.jpg" /&gt; 12                     &lt;/li&gt; 13                     &lt;li&gt; 14                         Two 15                         &lt;Image linkImg="https://s3-ap-southeast1.amazonaws.com/niomic/img/sample/nasipadang.jpg" /&gt; 16                     &lt;/li&gt; 17                     &lt;li&gt; 18                         Three 19                         &lt;Image linkImg="https://s3-ap-southeast1.amazonaws.com/niomic/img/sample/sate.png" /&gt; 20                     &lt;/li&gt; 21                     &lt;li&gt; 22                         Four 23                         &lt;Image linkImg="https://s3-ap-southeast1.amazonaws.com/niomic/img/sample/sotolamongan.png" /&gt; 24                     &lt;/li&gt; 25                 &lt;/ol&gt; 26             &lt;/div&gt; 27         ); 28     } 29 } 30 export default List; </pre>
2	Save it to List.js file
3	In the program code, we create four lists where each list calls a Component image. Then, the Component Image is called using the following program code

## Component Image

No	Step
1	<p>Write the following program code</p> <pre> web-reactku &gt; src &gt; Image.js &gt; ... 1  import React,{Component} from "react"; 2  // Class Component Image 3  class Image extends Component { 4      render() { 5          return &lt;img src={this.props.linkImg} alt="Food" width="500" /&gt;; 6      } 7  } 8  export default Image; 9 </pre>
2	How to access it using this.props.linkImg
3	That way, each image that appears will call a different src value, based on what we have specified in the Component List.
4	<p>Make sure to call App on react (index.js)</p> <pre> ReactDOM.render(&lt;App/&gt;, document.getElementById("root")); </pre>

```
src > index.js
1  import React from 'react';
2  import ReactDOM from 'react-dom';
3  import './index.css';
4  import App from './App';
5
6
7
8  ReactDOM.render(<App />,document.getElementById('root'));
```

5

The results given are as follows

**Component from Class Header**

**Component from Class App**

1. One



2. Two



3. Three



4. Four



**Footer Page**

**This component is created using Function not Class**

This value is returned from props: Footer Page

My name is JTI

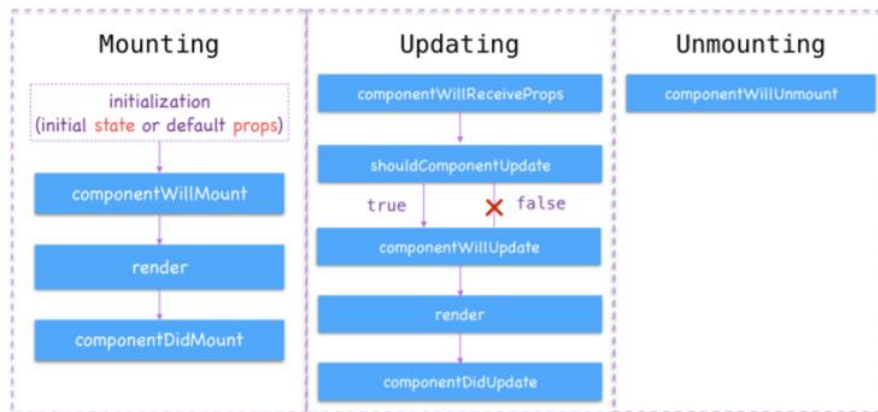
## E. Lifecycle Component

Components — components in react will go through at least three phases as follows:

- Mounting
- Updating
- Unmounting

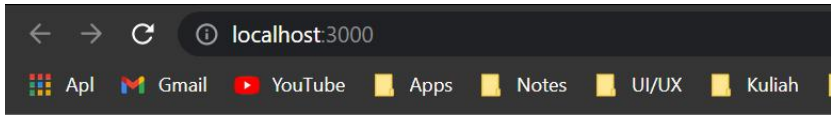
In each phase, components will execute different functions or methods known as lifecycle methods.

For more details, see the image below



Source: <https://rangle.github.io/react-training/react-lifecycles/>

No	Step
1	<p>In addition to being able to create stateless component files in the component folder, we can also add css files as shown in the following image (we recommend that the css file name be the same as the js file name), then add the following program code.</p> <pre>src &gt; component &gt; HelloComponent.css &gt; .text-p {   1  .text-p{   2    color: blueviolet;   3  }</pre>
2	<p>After that, import HelloComponent.css in HelloComponent.js as shown below</p> <pre>src &gt; component &gt; HelloComponent.js &gt; ... 1  import React from "react"; 2  import "./HelloComponent.css"; 3 4  const HelloComponent = () =&gt; { 5    return &lt;p className="text-p"&gt;This is the arrow function in the folder&lt;/p&gt; 6  }; 7 8 9  export default HelloComponent;</pre>

3	<p>Make sure to call HelloComponent on react (index.js) and import the file</p> <pre>src &gt; index.js 1 import React from 'react'; 2 import ReactDOM from 'react-dom'; 3 import './index.css'; 4 import App from './App'; 5 import HelloComponent from './component/HelloComponent' 6 7 8 9 ReactDOM.render(&lt;HelloComponent /&gt;,document.getElementById('root'));</pre>
4	<p>The results obtained are as follows</p>  <p>This is the arrow function in the folder</p>

### TASK

1. Create a login menu as shown in the following image, using components and CSS. Upload the source code and screenshots for your result into your Github repository. Provide your repository link on assignment submission in LMS.

Login Form

Assignment

Week 3

☐ Remember Me!

Login

Cancel



Result:

## Login

Assignment Week 3

☐ Remember Me!

Login

Cancel