

Jobsheet 2
Framework-Based Programming



LECTURER

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By:

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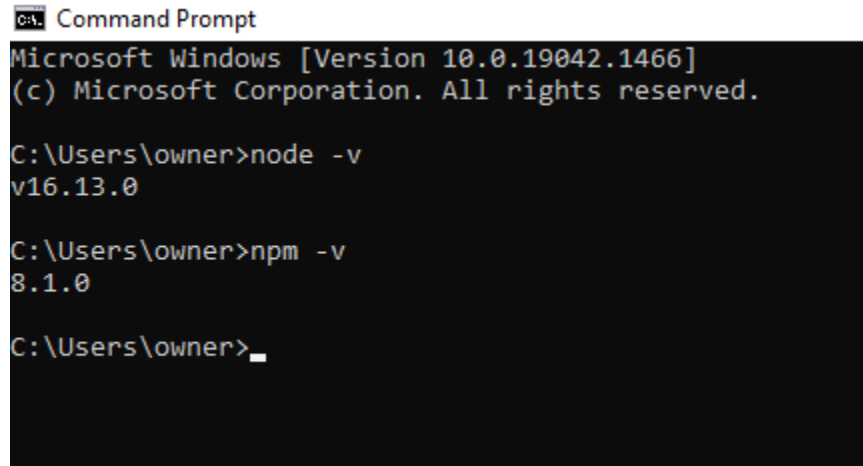
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PROGRAM STUDI D-IV TEKNIK INFORMATIKA
JURUSAN TEKNOLOGI INFORMASI
POLITEKNIK NEGERI MALANG
2022

Jobsheet 2 - Experiment

a. NodeJS Installation

NodeJS already installed.



```
CA: Command Prompt
Microsoft Windows [Version 10.0.19042.1466]
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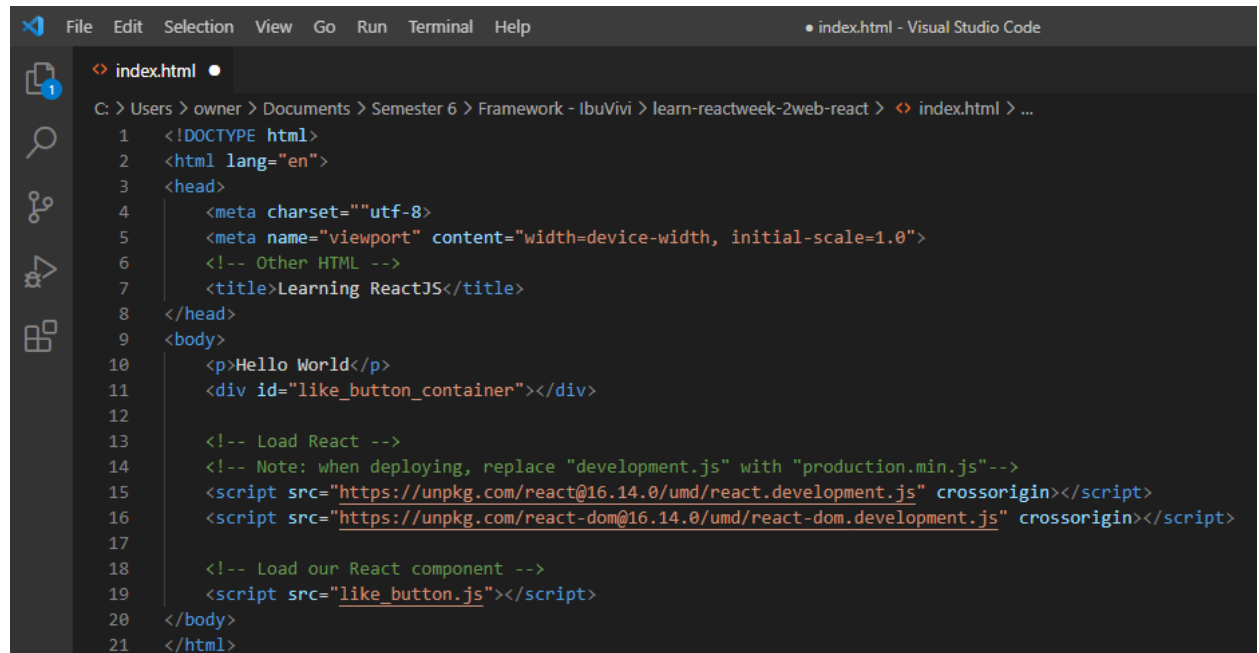
C:\Users\owner>node -v
v16.13.0

C:\Users\owner>npm -v
8.1.0

C:\Users\owner>
```

b. Adding React to the Website

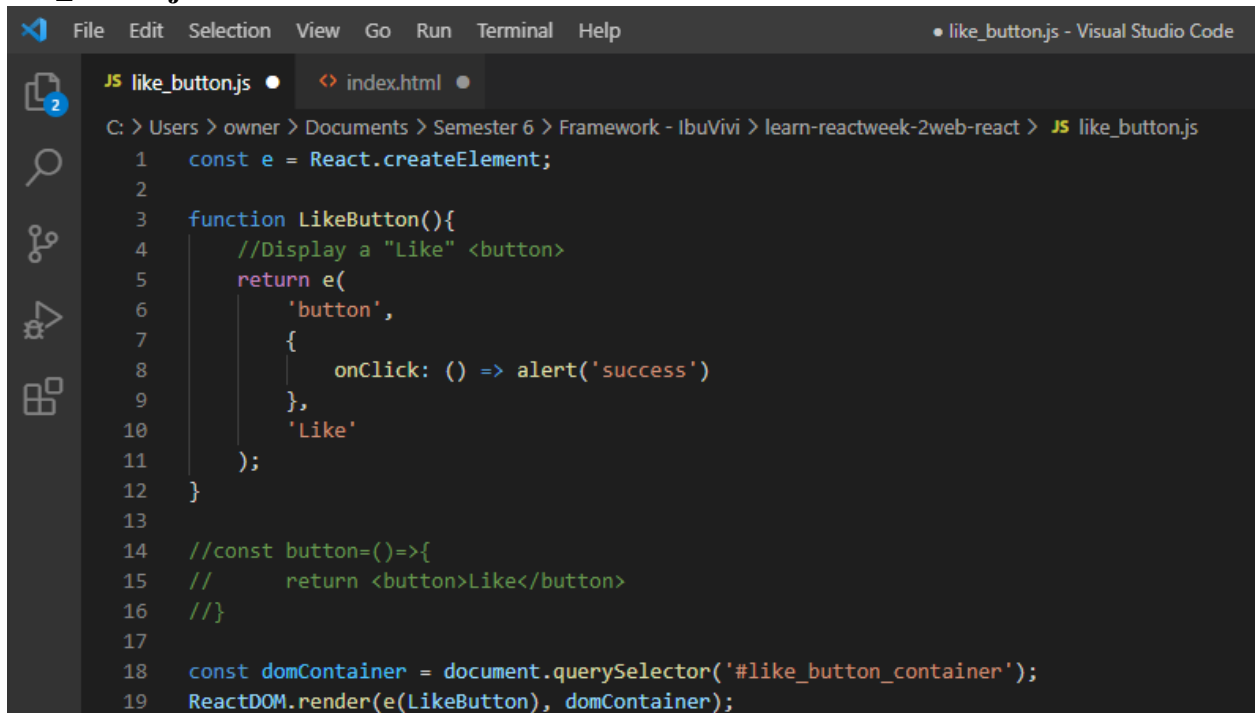
index.html



```
File Edit Selection View Go Run Terminal Help
index.html - Visual Studio Code

index.html
C: > Users > owner > Documents > Semester 6 > Framework - IbuVivi > learn-reactweek-2web-react > index.html > ...
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="utf-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <!-- Other HTML -->
7   <title>Learning ReactJS</title>
8 </head>
9 <body>
10   <p>Hello World</p>
11   <div id="like_button_container"></div>
12
13   <!-- Load React -->
14   <!-- Note: when deploying, replace "development.js" with "production.min.js"-->
15   <script src="https://unpkg.com/react@16.14.0/umd/react.development.js" crossorigin></script>
16   <script src="https://unpkg.com/react-dom@16.14.0/umd/react-dom.development.js" crossorigin></script>
17
18   <!-- Load our React component -->
19   <script src="like_button.js"></script>
20 </body>
21 </html>
```

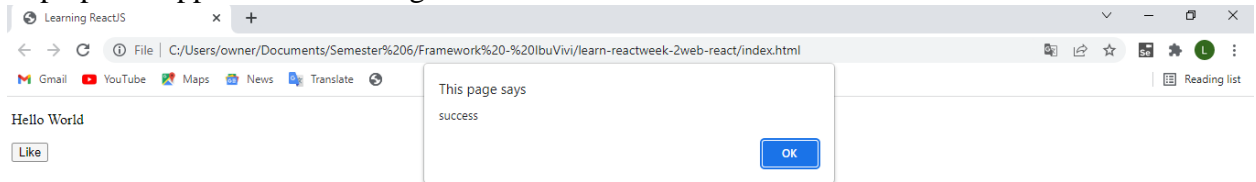
like_button.js



```
1  const e = React.createElement;
2
3  function LikeButton(){
4      //Display a "Like" <button>
5      return e(
6          'button',
7          {
8              onClick: () => alert('success')
9          },
10         'Like'
11     );
12 }
13
14 //const button=()=>{
15 //    return <button>Like</button>
16 //}
17
18 const domContainer = document.querySelector('#like_button_container');
19 ReactDOM.render(e(LikeButton), domContainer);
```

Results after open index.html

Pop up will appear after clicking like button.



c. React-app Installation

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19042.1466]
(c) Microsoft Corporation. All rights reserved.

C:\Users\owner>cd Documents

C:\Users\owner\Documents>cd Semester 6

C:\Users\owner\Documents\Semester 6>cd Framework - IbuVivi

C:\Users\owner\Documents\Semester 6\Framework - IbuVivi>npm install -g create-react-app
npm WARN deprecated tar@2.2.2: This version of tar is no longer supported, and will not receive security updates. Please upgrade asap.

changed 67 packages, and audited 68 packages in 6s

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

2 high severity vulnerabilities

Some issues need review, and may require choosing
a different dependency.

Run `npm audit` for details.

C:\Users\owner\Documents\Semester 6\Framework - IbuVivi>create-react-app --version
5.0.0

C:\Users\owner\Documents\Semester 6\Framework - IbuVivi>create-react-app web-reactku cd web-reactku npm start

Creating a new React app in C:\Users\owner\Documents\Semester 6\Framework - IbuVivi\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 3m

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 12s

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

removed 1 package, and audited 1404 packages in 6s

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.
Git commit not created Error: Command failed: git commit -m "Initialize project using Create React App"
at checkExecSyncError (node:child_process:826:11)
at execSync (node:child_process:900:15)
at tryGitCommit (C:\Users\owner\Documents\Semester 6\Framework - IbuVivi\web-reactku\node_modules\react-scripts\scripts\init.js:62:5)
at module.exports (C:\Users\owner\Documents\Semester 6\Framework - IbuVivi\web-reactku\node_modules\react-scripts\scripts\init.js:350:25)
at [eval]:3:14
at Script.runInThisContext (node:vm:129:12)
at Object.runInThisContext (node:vm:305:38)
at node:internal/process/execution:81:19
at [eval]:6:22
at [eval]-wrapper:6:22
at evalScript (node:internal/process/execution:80:60) {
  status: 128,
  signal: null,
  output: [ null, null, null ],
  pid: 2992,
  stdout: null,
  stderr: null
}
Removing .git directory...

Success! Created web-reactku at C:\Users\owner\Documents\Semester 6\Framework - IbuVivi\web-reactku
Inside that directory, you can run several commands:

  npm start
    Starts the development server.

  npm run build
    Bundles the app into static files for production.

  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

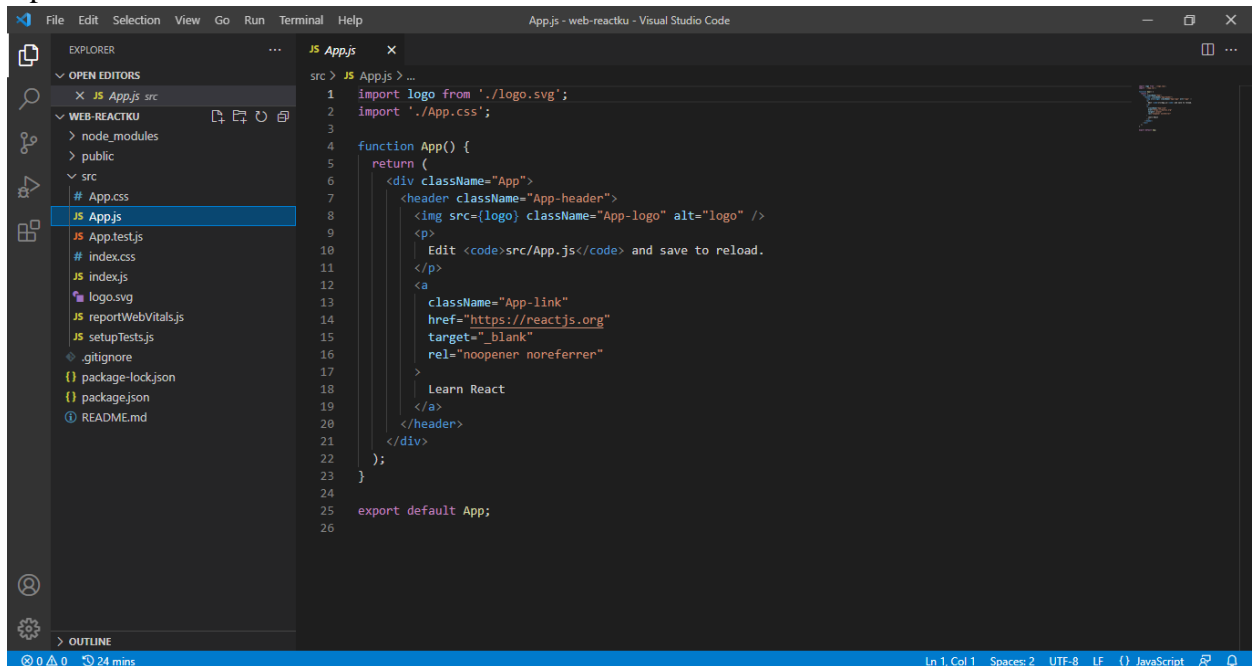
We suggest that you begin by typing:

  cd web-reactku
  npm start

Happy hacking!

C:\Users\owner\Documents\Semester 6\Framework - IbuVivi>
```

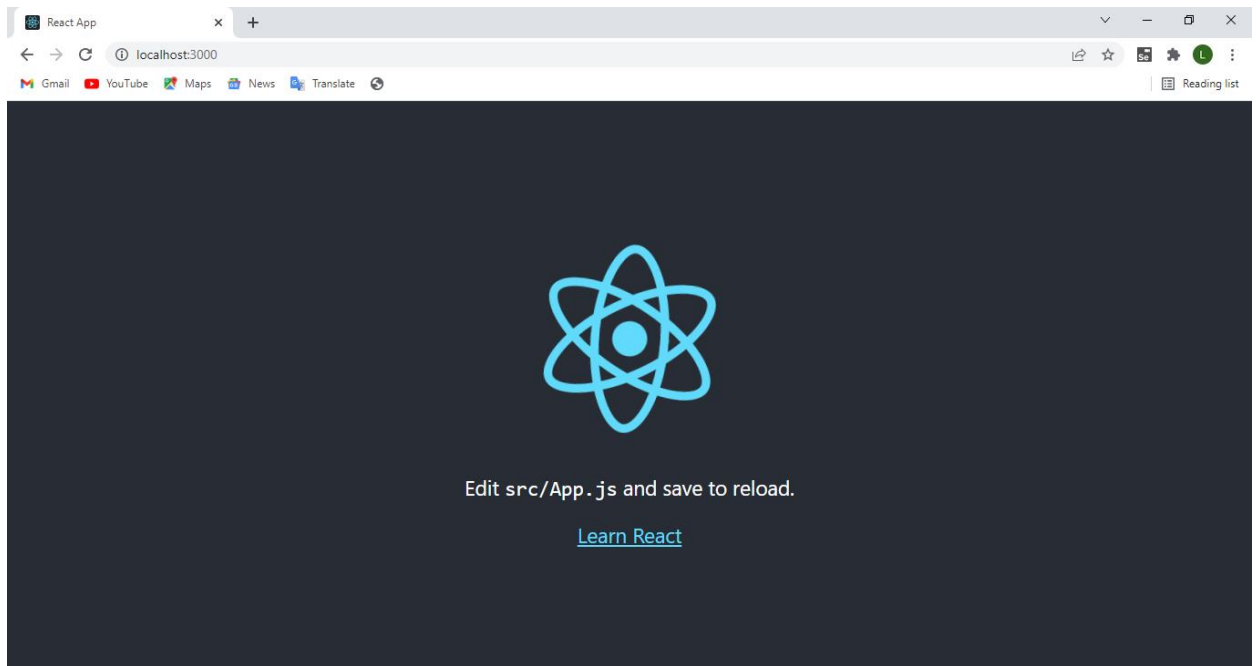
Project has been created and there a new folder called “web-reactku”.
Open this folder with VS Code.



The screenshot shows the Visual Studio Code interface with the 'App.js' file open in the editor. The Explorer sidebar on the left shows the project structure, including the 'src' folder and files like 'App.css', 'App.test.js', 'index.css', 'index.js', 'logo.svg', 'reportWebVitals.js', 'setupTests.js', '.gitignore', 'package-lock.json', 'package.json', and 'README.md'. The editor displays the following code:

```
src > JS Appjs > ...
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
```

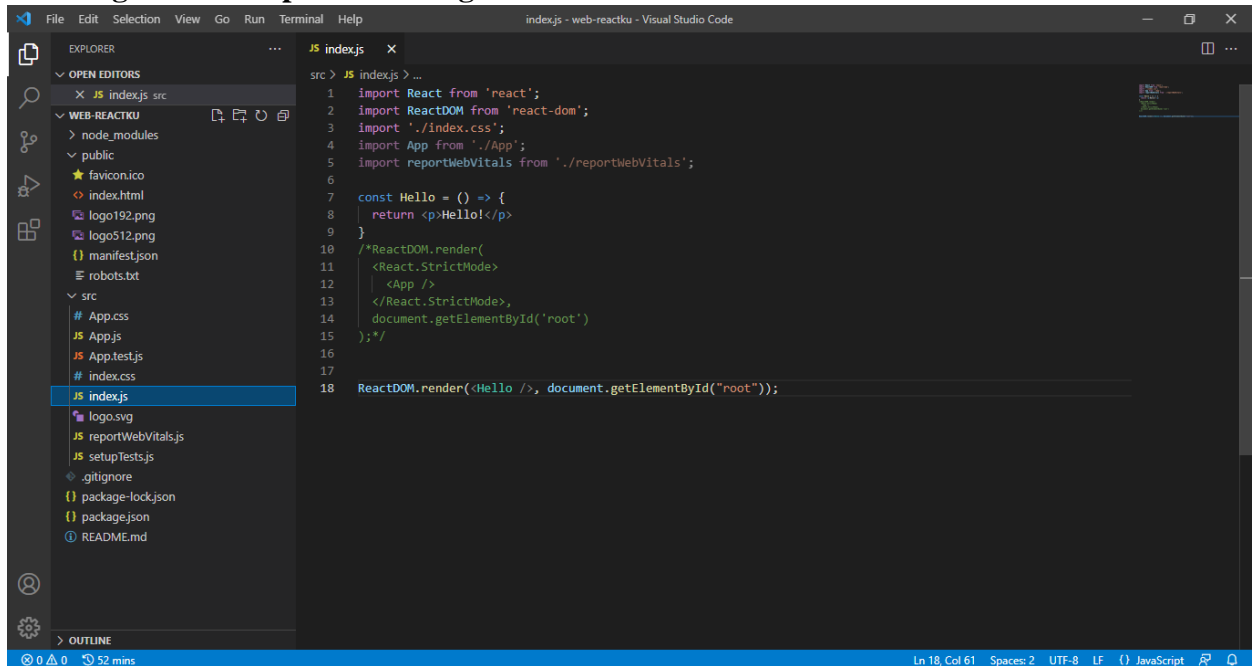
Run it, type “npm start” command.
Browser will automatically open.
And this a result:



d. React Project Structure

Already in web-reactku folder

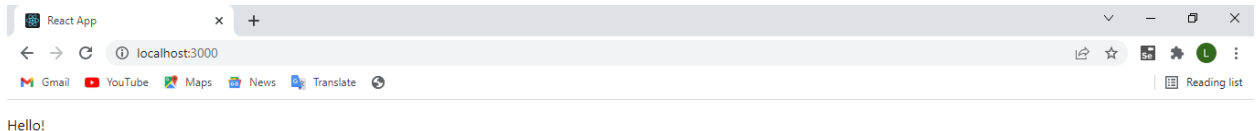
e. Creating Hello Components Using Arrow Function



The screenshot shows the Visual Studio Code interface with the Explorer sidebar on the left and the editor window on the right. The Explorer sidebar shows the project structure for 'web-reactku'. The 'src' folder is expanded, showing files like 'App.css', 'App.js', 'App.test.js', 'index.css', 'index.js', 'logo.svg', 'reportWebVitals.js', and 'setupTests.js'. The 'index.js' file is selected and its content is displayed in the editor window. The code in 'index.js' imports React, ReactDOM, and the App component, and renders the App component into the root element of the document.

```
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"));
```

Run and this is a result:



Thank You.