

Jobsheet Report

Week 2: ReactJS

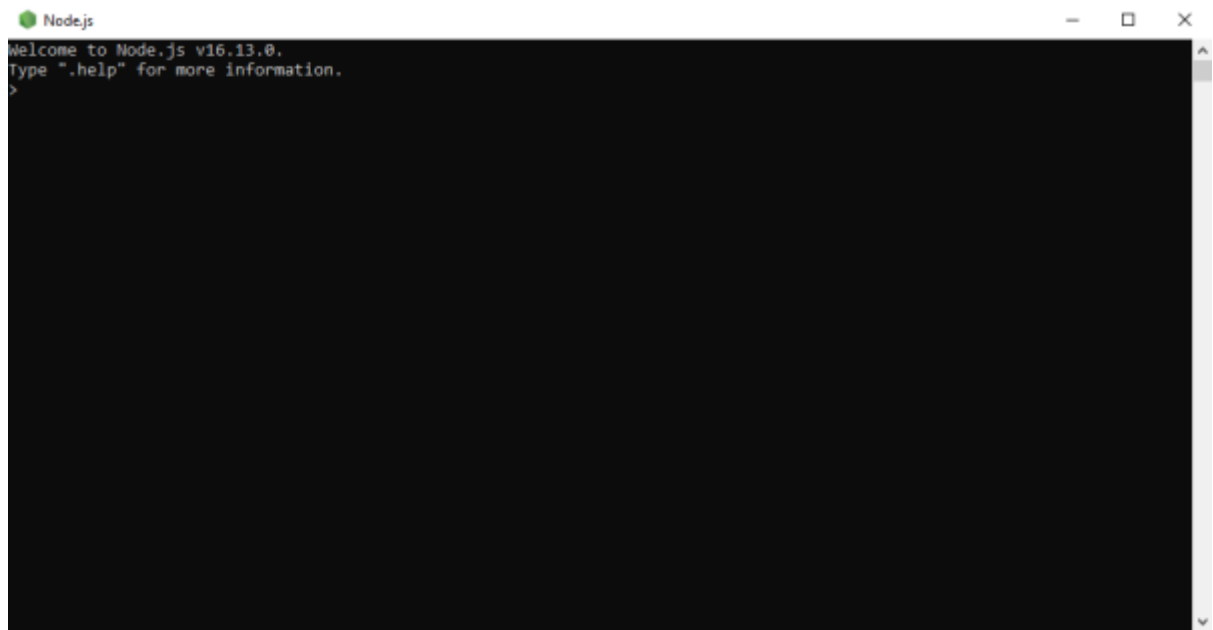
FRAMEWORK-BASED PROGRAMMING

Baggio Deroger

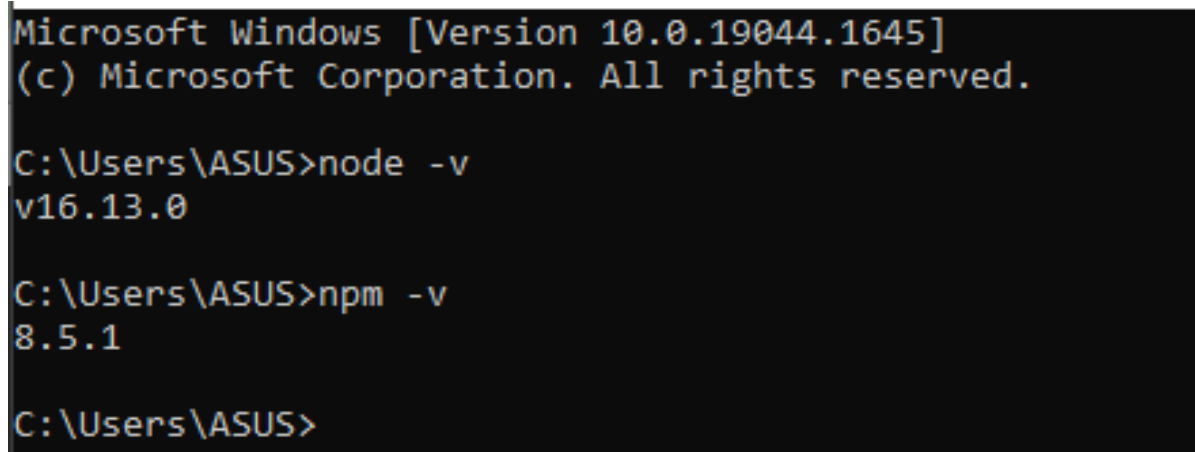
1941720238 – TI 3H

April 2022

1. NodeJS installation and version checking:

A screenshot of a Node.js REPL window. The title bar says "Node.js" with standard Windows window controls. The text inside the window reads: "Welcome to Node.js v16.13.0." followed by "Type '.help' for more information." and a prompt character ">".

```
Node.js
Welcome to Node.js v16.13.0.
Type ".help" for more information.
>
```

A screenshot of a Windows command prompt window. It shows the system information at the top, followed by two commands being executed: 'node -v' which returns 'v16.13.0', and 'npm -v' which returns '8.5.1'. The prompt is currently at 'C:\Users\ASUS>'.

```
Microsoft Windows [Version 10.0.19044.1645]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ASUS>node -v
v16.13.0

C:\Users\ASUS>npm -v
8.5.1

C:\Users\ASUS>
```

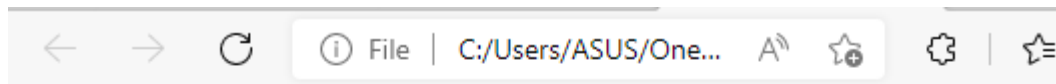
2. Creating index file:

```
index.html > html > body > p
index.html
JS like_button.js
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="UTF-8" />
5     <meta http-equiv="X-UA-Compatible" content="IE=edge" />
6     <meta name="viewport" content="width=device-width, initial-scale=1.0" />
7     <title>Learning React</title>
8   </head>
9   <body>
10    <p>
11      Hello world, it's Baggio <br />
12      I would like to show you this awesome button
13    </p>
14    <div id="like_button_container"></div>
15    <!--Load React-->
16    <script
17      src="https://unpkg.com/react@16.13.0/umd/react.development.js"
18      crossorigin
19    ></script>
20    <script
21      src="https://unpkg.com/react-dom@16.13.0/umd/react-dom.development.js"
22      crossorigin
23    ></script>
24    <!--Load our React component-->
25    <script src="like_button.js"></script>
26  </body>
27</html>
```

3. Creating button file:

```
JS like_button.js > ...
1 const e = React.createElement;
2
3 function LikeButton() {
4   return e(
5     "button",
6     {
7       onClick: () => alert("success"),
8       style: {
9         color: "white",
10        backgroundColor: "blue",
11        height: "50px",
12        width: "100px",
13        borderRadius: "5px",
14        border: "none",
15        boxShadow: "none",
16        cursor: "pointer",
17      },
18    },
19    "Like"
20  );
21 }
22
23 const domContainer = document.querySelector("#like_button_container");
24 ReactDOM.render(e(LikeButton), domContainer);
```

4. Opening index file on browser:



Hello world, it's Baggio
I would like to show you this awesome button



React app:

1. Installation:

```
Windows PowerShell
Your environment has been set up for using Node.js 16.13.0 (x64) and npm.

C:\Users\ASUS>cd
C:\Users\ASUS

C:\Users\ASUS>cd..
C:\Users>cd..

C:\>cd react
The system cannot find the path specified.

C:\>create react
'create' is not recognized as an internal or external command,
operable program or batch file.

C:\>create react
'create' is not recognized as an internal or external command,
operable program or batch file.

C:\>cd react

C:\react>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 9s

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:\react>create-react-app --version
5.0.1
```

```

C:\react>create-react-app web-reactku

Creating a new React app in C:\react\web-reactku.

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

added 1379 packages in 3m

176 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 39 packages in 24s

176 packages are looking for funding
  run 'npm fund' for details
Removing template package using npm...

removed 1 package, and audited 1418 packages in 8s

176 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.

```

```

Success! Created web-reactku at C:\react\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:\react>cd web-reactku
C:\react\web-reactku>npm start

> web-reactku@0.1.0 start
> react-scripts start

(node:12972) [DEP_WEBPACK_DEV_SERVER_ON_AFTER_SETUP_MIDDLEWARE] DeprecationWarning: 'onAfterSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
(node:12972) [DEP_WEBPACK_DEV_SERVER_ON_BEFORE_SETUP_MIDDLEWARE] DeprecationWarning: 'onBeforeSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
Starting the development server...
Compiled successfully!

You can now view web-reactku in the browser.

  Local:            http://localhost:3000
  On Your Network:  http://172.27.96.1:3000

```

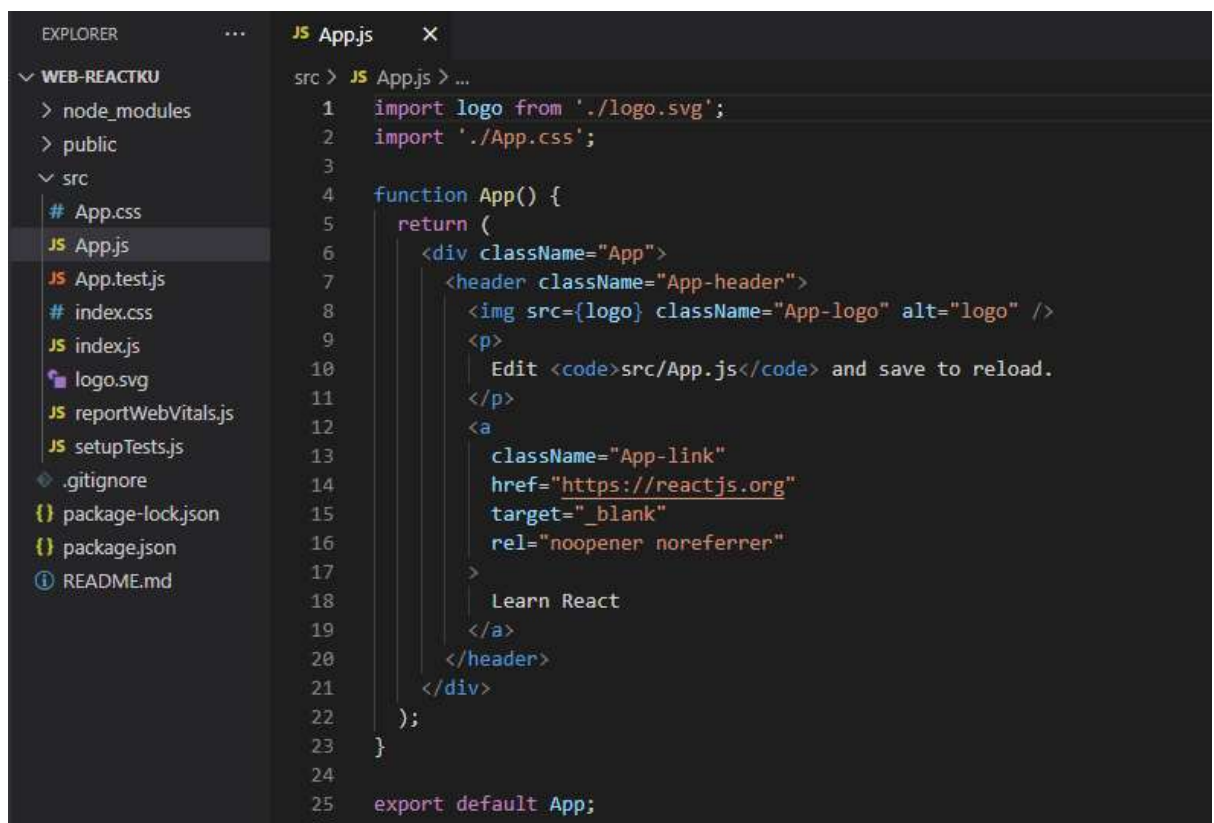
Note that the development build is not optimized.
To create a production build, use `npm run build`.

webpack compiled successfully

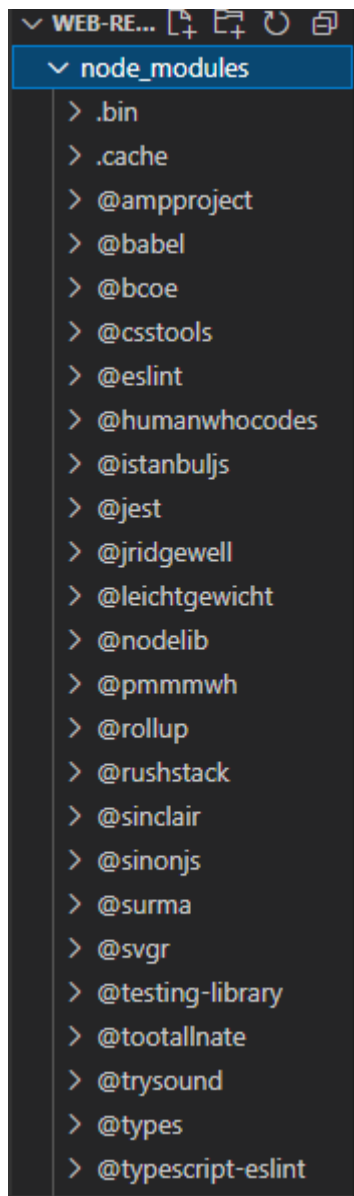
2. Web page with the address localhost:3000:



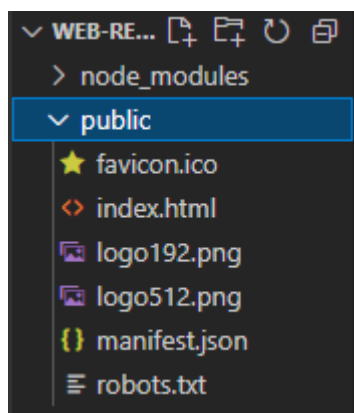
3. Opening the folder with VS Code. File menu ▾ Open Folder, then find the folder.



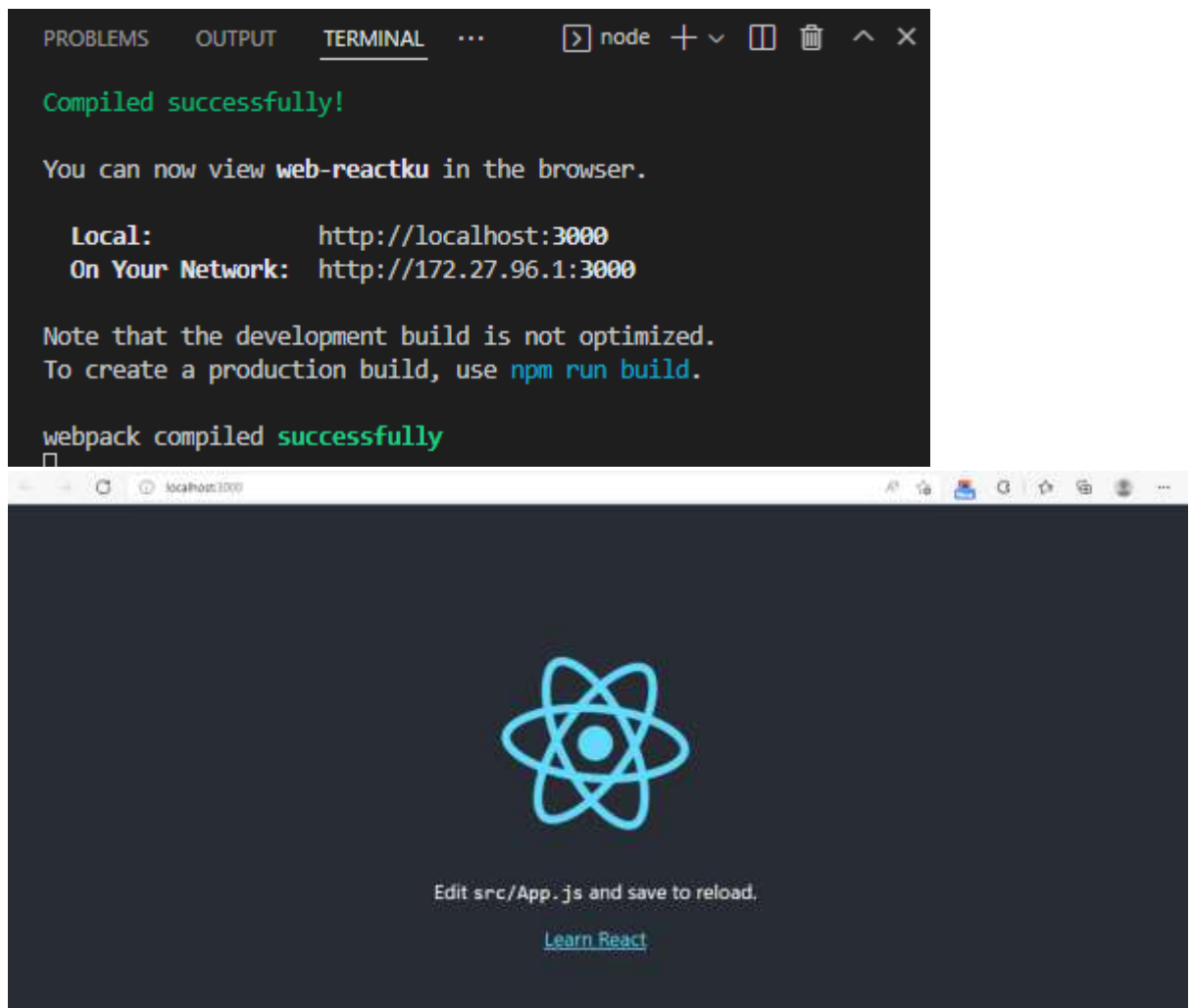
Node modules:



Public:



4. Running the following command in Terminal:
npm start



Creating Hello Components Using Arrow Function

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


```

src > JS index.js > ...
1  import React from 'react';
2  import ReactDOM from 'react-dom/client';
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  /*const root = ReactDOM.createRoot(document.getElementById('root'));
12  root.render(
13    <React.StrictMode>
14      <App />
15    </React.StrictMode>
16  );
17  */
18  ReactDOM.render(<Hello />, document.getElementById('root'));
19  // If you want to start measuring performance in your app, pass a function
20  // to log results (for example: reportWebVitals(console.log))
21  // or send to an analytics endpoint. Learn more: https://bit.ly/CRA-vitals
22  reportWebVitals();
23

```

2. Run and opening the browser:

```

PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

Compiled successfully!

You can now view web-reactku in the browser.

  Local:            http://localhost:3000
  On Your Network:  http://172.27.96.1:3000

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

webpack compiled successfully

```

