

Hello World with React

Estimated Time: 20 minutes

In this lab you will be creating your first React page and your first React application. As the first step to learning anything new in the coding world, you will render a 'Hello World' page.

Learning Objectives

After completing this exercise, you should be able to perform the following tasks:

- Create a simple React page
- Create, run and render a React application
- Set properties for a react component

First React application

1. From the menu on top of the lab, go to the Terminal and open a new terminal.
2. In the terminal, paste and run the following command to go to the home/project directory.

1. 1

1. `cd /home/project`

Copied!

Executed!

3. Run the following command to create a react application named **myfirstapp**. It is mandated that the React application name cannot contain any uppercase letter.

1. 1

1. `npm create-react-app myfirstapp`

Copied!

Executed!

4. It requires you to confirm that the packages required can be installed. Confirm to get started with the installation.
5. Once the installation is over, the application is created inside a folder with the name specified by you for the application. Change to that folder by running the following command.

1. 1

1. `cd myfirstapp`

Copied!

Executed!

6. create-react-app creates the boiler plate code which is required for you to run a basic React app. To check the react app that has been created, run the following command.

1. 1

1. `npm start`

Copied!

Executed!

This will start the react development server on port 3000.

7. Click on the Launch Application button below or the SkillsNetwork Toolbox logo and from the options choose OTHER and click Launch Application. Enter the port number 3000 and click on the arrow mark to launch the application.

Launch Application

The screenshot displays the Theia IDE interface. The top menu bar includes File, Edit, Selection, View, Go, Run, Terminal, and Help. The left sidebar contains icons for Explorer, Search, Source Control, Run and Debug, Extensions, and Testing. The Explorer view is open, showing a file tree with 'expWithAuth.js' and 'Your Application'. The 'Launch Your Application' dialog is open, prompting the user to enter the 'Application Port' (3000) and click the 'Launch' button. The terminal at the bottom shows the command 'node expWithAuth.js' being executed, resulting in a 'Server is running' message.

File Edit Selection View Go Run Terminal Help

S... ? expWithAuth.js Your Application Launch App

> DATABASES

> BIG DATA

> CLOUD

✓ OTHER

Launch ...

Open Li...

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About ...

Launch Your Application

To open any application in the browser, please se

Application Port

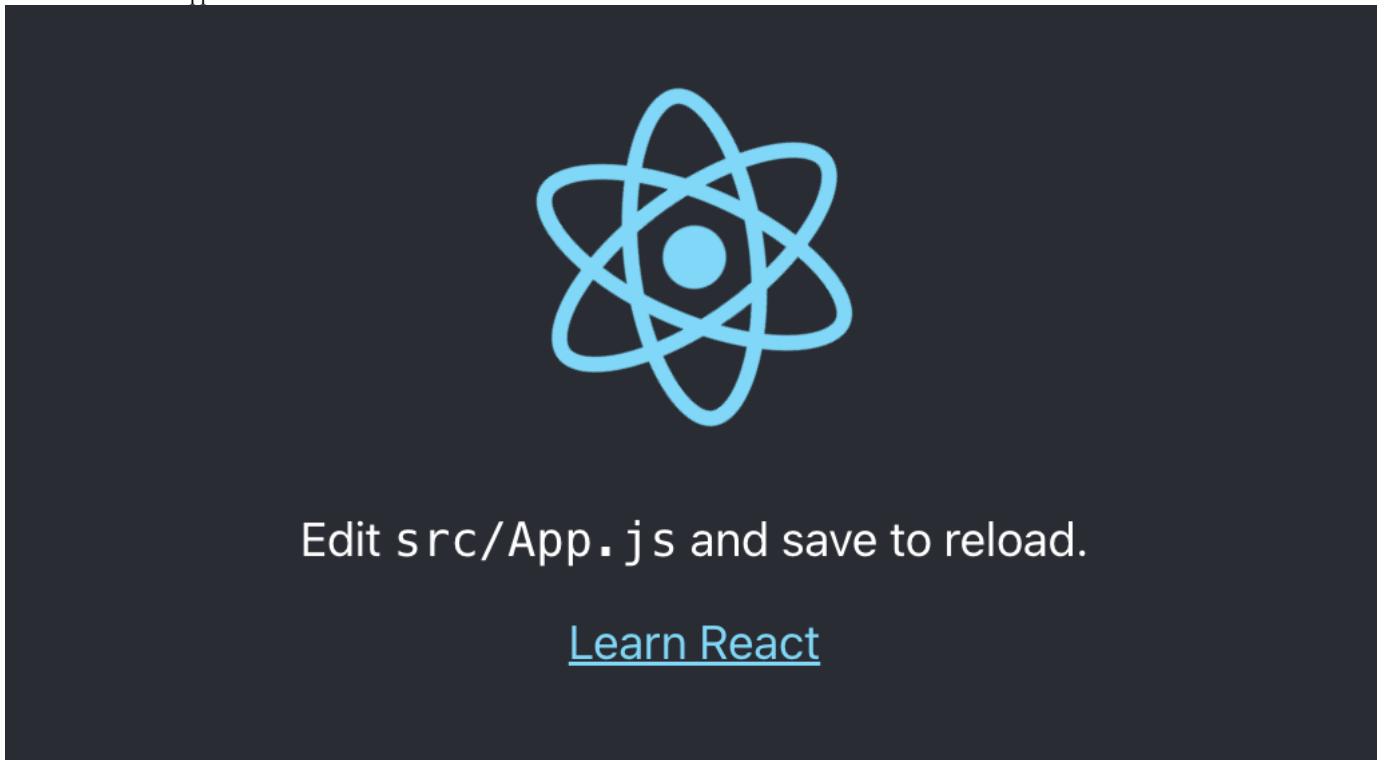
3000

Your Application

Problems theia@theia-lavanyas: /home/project ×

```
theia@theia-lavanyas:/home/project$ node expW
express-session deprecated undefined resave o
express-session deprecated undefined saveUnin
expWithAuth.js:35:9
Server is running
█
```

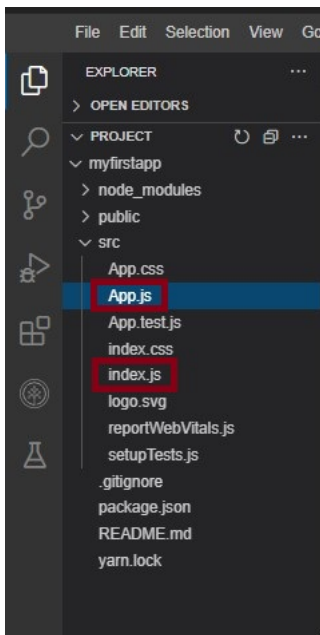
8. This will launch the application in a new browser tab.



Press Ctrl+C at the command prompt to stop the react development server.

Modify for Hello World App

1. Within the src folder of the myfirstapp project folder, you will find **App.js** and **index.js**.



2. The following code should be replaced in index.js inside of the src folder. All the styling will be removed as a result, leaving you with the basic needs.

```
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8

1. import React from 'react';
2. import ReactDOM from 'react-dom/client';
3. import App from './App';
4.
5. const root = ReactDOM.createRoot(document.getElementById('root'));
6. root.render(
7.   <App />
8. );
```

Copied!

3. Replace the content of App.js inside the folder src, with the following code.

```
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

1. function App() {
2.   return (
3.     <h1>Hello World</h1>
4.   );
5. }
6.
7. export default App;
```

Copied!

4. Remove all the files which you do not require for this lab, by running the following command.

```
1. 1

1. rm src/App.css src/App.test.js src/index.css src/logo.svg src/reportWebVitals.js src/setupTests.js
```

Copied!

Executed!

5. Now start the server again and follow the steps mentioned earlier to launch and view the application on the browser.

```
1. 1

1. npm start
```

Copied!

Executed!

You will see the page render with the message “Hello World”.

Hello World with Time

1. Change the code in App.js, by pasting the following code in it. It will render the time stamp along with the Hello World message.

```
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. 10
11. 11
12. 12

1. function App(props) {
2.   const currDate = new Date();
3.
4.   return (
5.     <div>
6.       <h1>Hello, world!</h1>
7.       <h2>The time now is {currDate.toLocaleTimeString()}</h2>
8.     </div>
9.   );
10. }
11.
12. export default App;
```

Copied!

2. Now you will see the time also getting rendered along with “Hello World”. To ensure the time is kept current and is constantly changing, change the code in index.js by pasting the following code in it.

```
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. 10

1. import React from 'react';
2. import ReactDOM from 'react-dom/client';
3. import App from './App';
4.
5. const root = ReactDOM.createRoot(document.getElementById('root'));
6. function ref() {
7.   root.render(<App/>);
8. }
9.
10. setInterval(ref, 1000);
```

Copied!

3. Now start the server again and follow the steps mentioned earlier to launch and view the application on the browser.

- 1. 1
- 1. npm start

Copied! Executed!

Launch Application

- Practice exercise:
- 1. Replace the “Hello World” message to display your name instead.
 - 2. Replace the code to display the date along with the time.
- Click here for a hint
 - Click here for the solution

Author(s)

[Lavanya T S](#)

Changelog

Date	Version	Changed by	Change Description
2022-10-31	1.0	Lavanya T S	Initial version created
2023-01-30	1.1	Sapthashree K S	Added screenshot