Hands-on Lab: 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 Terminal and open a new terminal.

2. In the terminal, paste and run the following command to go to the `home/project` directory.

   ```
   cd /home/project
   ```

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

   ```
   npm create vite@latest myfirstapp -- --template react
   ```

4. It requires you to confirm that the packages required can be installed. Confirm by pressing `y` on your keyboard to get started with the installation.

5. After 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.

   ```
   cd myfirstapp
   ```

6. Install the all necessary files which are required to run the react application by running this command.:

```
npm install
```

7. Then in the terminal write given commands to update scripts in **package.json** file and hit enter.

```
npm pkg set scripts.lint="eslint . --ext js,jsx --report-unused-disable-directives --max-warnings 0"
```

```
npm pkg set scripts.preview="vite build && vite preview --host"
```

8. To check the React app that has been created, run the following command.

```
npm run preview
```

9. To view how your react application, click the Skills Network button on the left (refer to number 1). This action will open the "Skills Network Toolbox." Next, select "Launch Application" (refer to number 2). Once there, enter port

number **4173** in "Application Port" (refer to number 3) and click this button .

Launch Application

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

Press Ctlr+C at the command prompt to stop the React development server.

Modify the Hello World App

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

2. Replace the following code in main.jsx inside the src folder. All the styling will be removed as a result, leaving you with the basic needs.

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App';
const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
    <App />
);
```

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

```
function App() {
  return (
      <h1>Hello World</h1>
  );
}
export default App;
```

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

```
npm run preview
```

6. Click `Launch Application` below.

[Launch Application]

You will see the page render with the message "Hello World".

Hello World with Time

1. Change the code in App.jsx, by pasting the code shown below. It will render the timestamp along with the Hello World message in the browser page.

```
function App(props) {
  const currDate = new Date();
  return (
    <div>
      <h1>Hello, world!</h1>
      <h2>The time now is {currDate.toLocaleTimeString()}.</h2>
    </div>
  );
}
export default App;
```

2. Now you will see the time along with "Hello World". Now stop the server and start it again to launch and view the application on the browser.

3. To ensure the time is kept current and is constantly changing, change the code in main.jsx by pasting the following code in it:

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App';
const root = ReactDOM.createRoot(document.getElementById('root'));
function ref() {
  root.render(<App/>);
}
setInterval(ref, 1000);
```

4. Now start the server again, if it is not running then follow the steps mentioned earlier to launch and view the application on the browser.

```
npm run preview
```

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

```
Use currDate.toLocaleDateString() to get the date string.
```

▼ Click here for the solution

```
function App(props) {
  const currDate = new Date();
  return (
    <div>
      <h1>Hello, world!</h1>
      <h2>It is {currDate.toLocaleDateString()} and the time now is {currDate.toLocaleTimeString()}.</h2>
    </div>
  );
}
export default App;
```

Congratulations! You have successfully completed your first React project using the Vite build tool. You initialized a new React app, ran the development server, and rendered your first "Hello World" component in the browser. This lab marks your first step into modern front-end development with React and Vite!

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