Lesson 04 Demo 05

Creating a React Application Using the Custom Hooks

Objective: To develop a React application that demonstrates the working of custom Hooks

Tools required: Node terminal, React App, and Visual Studio Code

Prerequisites: Knowledge of creating a React app and understanding of the folder structure

Steps to be followed:

1. Create a new React app
2. Create a new file called useCounter.js in the src directory
3. Import useCounter from the useCounter.js file in App.js
4. Run the app and view it in the browser

Step 1: Create a new React app

1.1 Open your terminal and run the command:

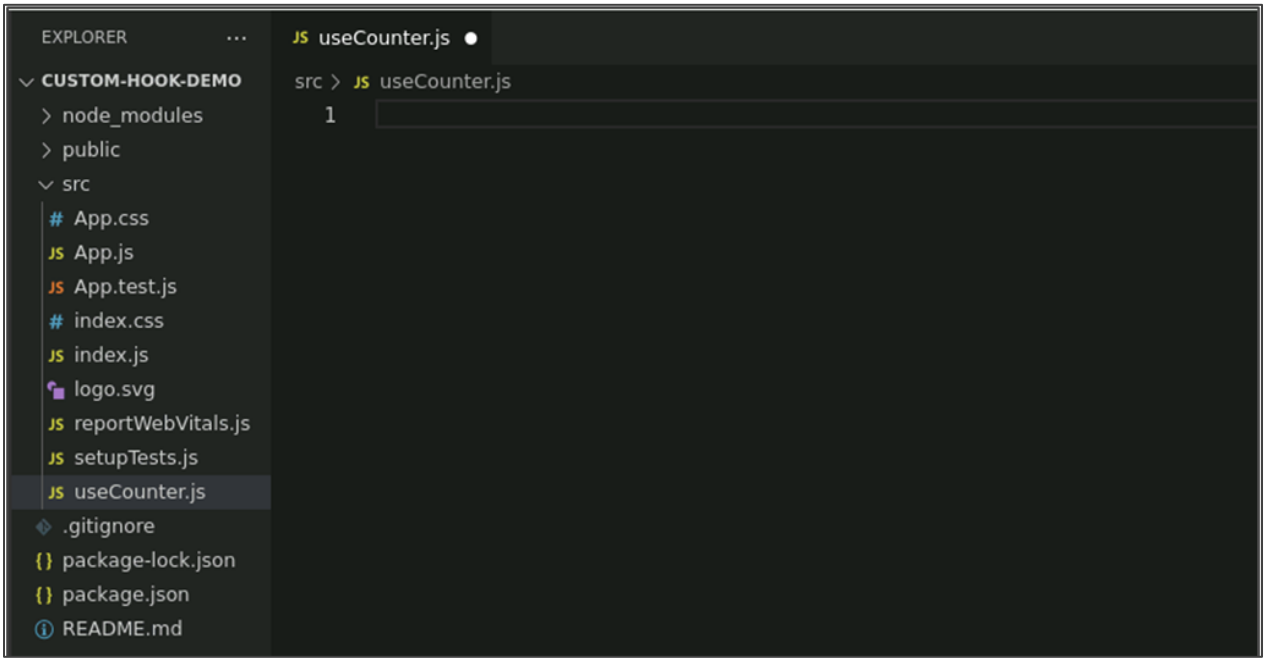
npx create-react-app custom-hook-demo

This command will create a new React app with the name **custom-hook-demo**

1.2 Run the **cd custom-hook-demo** command in the terminal to change the current directory to the newly created React app directory

Step 2: Create a new file called useCounter.js in the src directory

2.1 Open **Visual Studio Code** and navigate to the **custom-hook-demo** directory. In the **src** directory, create the **useCounter.js** file



2.2 Inside the **useCounter.js** file, import the **useState** Hook from the React library using the following code:
import { useState } from 'react';

2.3 Define the **useCounter** function that takes an **initialValue** as a parameter as shown in the screenshot:

2.4 Inside the **useCounter** function, use the **useState** Hook to create the **count** state variable and **setCount** function to update the state

```
const [count, setCount] = useState(initialValue);
```

2.5 Define the **increment** and **decrement** functions that update the **count** state by increasing or decreasing it as shown in the screenshot:

```
const increment = () => {
setCount(count + 1);
};

const decrement = () => {
setCount(count - 1);
};
```

2.6 Define a **return** object with the **count**, **increment**, and **decrement** values as shown in the screenshot

```
return {
count,
increment,
decrement,
};
}

export default useCounter;
```

Note: Refer to the following code to configure the **useCounter.js** file:

```
import { useState } from 'react';

function useCounter(initialValue) {
const [count, setCount] = useState(initialValue);

const increment = () => {
setCount(count + 1);
};

const decrement = () => {
setCount(count - 1);
};

return {
count,
increment,
decrement,
};
}

export default useCounter;
```

```
import { useState } from 'react';

function useCounter(initialValue) {
const [count, setCount] = useState(initialValue);

const increment = () => {
setCount(count + 1);
};

const decrement = () => {
setCount(count - 1);
};

return {
count,
increment,
decrement,
};
}

export default useCounter;
```

Step 3: Import useCounter from the useCounter.js file in App.js

3.1 Open the **App.js** file in your code editor and modify it by importing the **useCounter** Hook from the **useCounter.js** file

```
import useCounter from './useCounter';
```

3.2 Inside the **App** function component, call the **useCounter** Hook and assign the returned values to the variables

```
function App() {
const { count, increment, decrement } = useCounter(0);
```

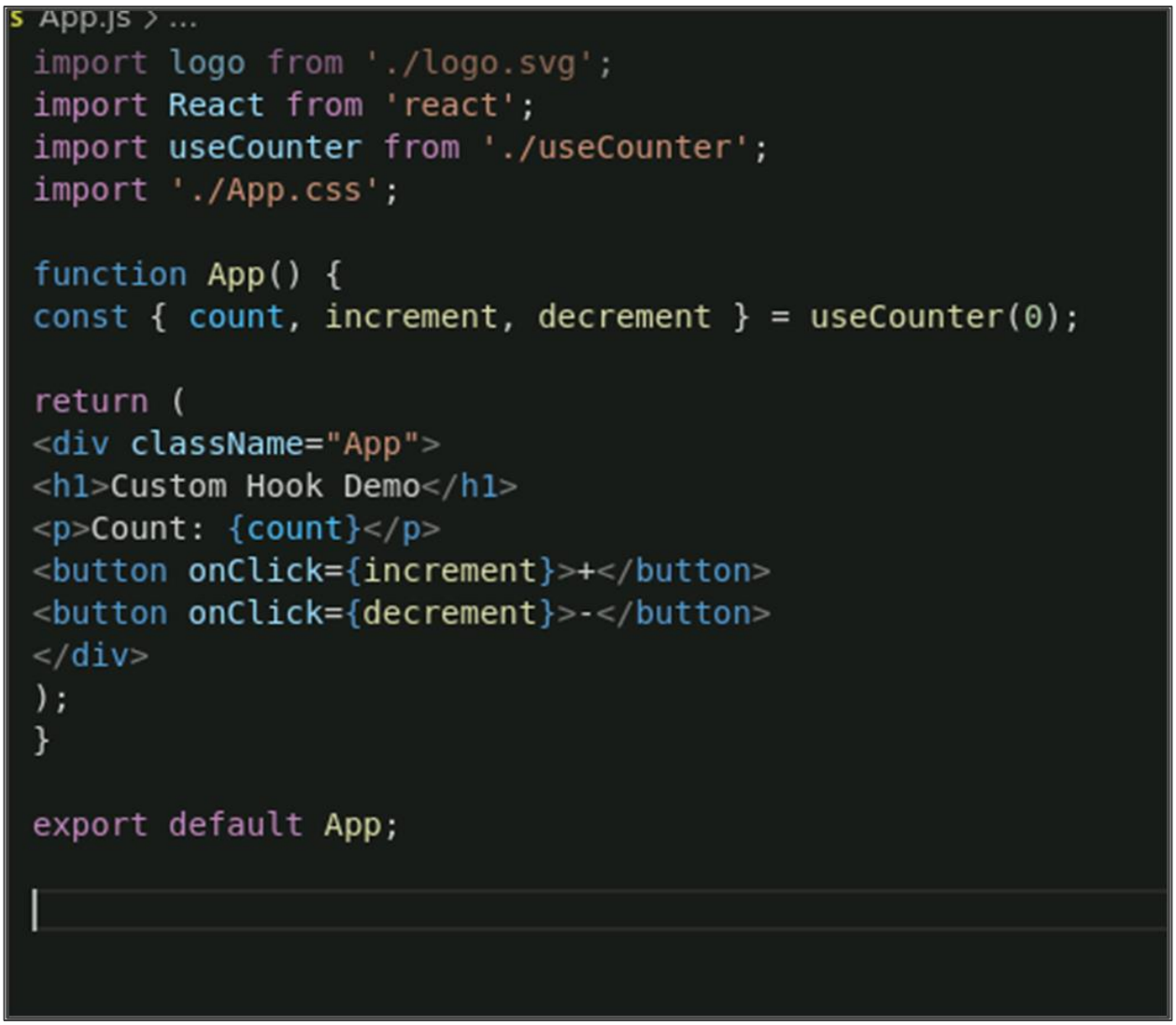
3.3 Use the **count**, **increment**, and **decrement** variables in the **JSX** to display the count and handle the increment and decrement functionalities

```
return (
<div className="App">
<h1>Custom Hook Demo</h1>
<p>Count: {count}</p>
<button onClick={increment}>+</button>
<button onClick={decrement}>-</button>
</div>
);
}
```

Note: Refer to the following code to configure the App.js file:

```
import React from 'react';
import useCounter from './useCounter';
import './App.css';

function App() {
const { count, increment, decrement } = useCounter(0);
```

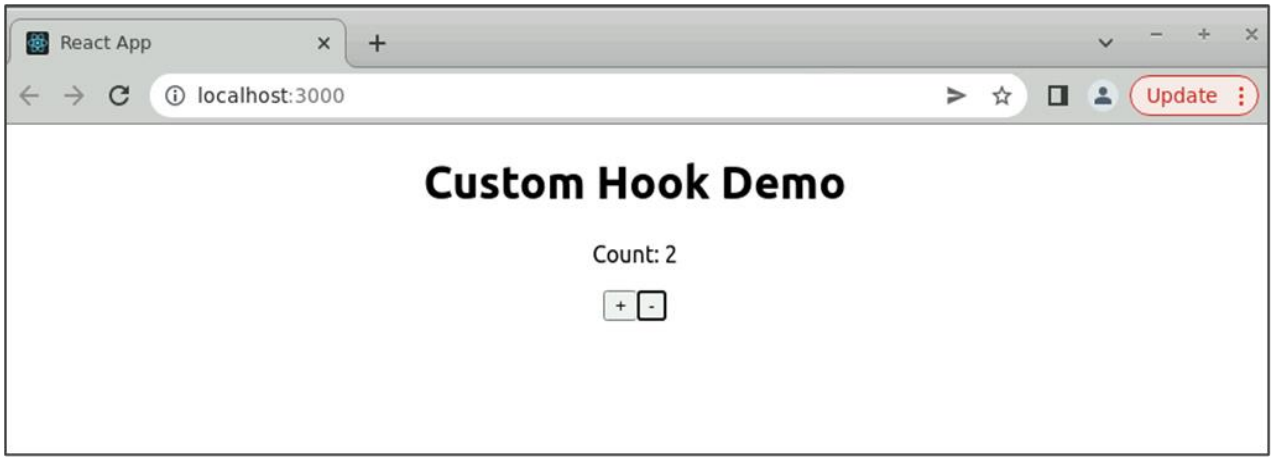
```
return (
<div className="App">
<h1>Custom Hook Demo</h1>
<p>Count: {count}</p>
<button onClick={increment}>+</button>
<button onClick={decrement}>-</button>
</div>
);
}

export default App;
```



Step 4: Run the app and view it in the browser

4.1 In the terminal, run the command **npm start** to start the app

4.2 Open your browser and navigate to **http://localhost:3000** to view the final output



You will see a simple app with a counter displayed with two buttons that increment and decrement the count using the custom **useCounter** Hook.

With this, you have successfully developed a React application demonstrating the use of custom Hooks, specifically showcasing a counter with increment and decrement functionalities.