**13. ReactJS-HOL**

**Objectives**

* **Explain various ways of conditional rendering**

Conditional rendering in React means displaying components or elements based on conditions such as state or props. It can be implemented using if-else, ternary operators, logical AND (&&), or element variables.

* **Explain how to render multiple components**

Multiple components can be rendered together by returning them inside a common parent like <div> or <React.Fragment>. This helps build complex UIs from smaller reusable blocks.

* **Define list component**

A list component is used to display a set of similar items dynamically using array methods like map(). It helps present data like users, flights, or products in a clean, structured way.

* **Explain about keys in React applications**

Keys are unique identifiers used by React to track list elements during updates. They help React optimize rendering by identifying which elements changed, were added, or removed.

* **Explain how to extract components with keys**

When rendering lists, each item can be extracted into a separate component and passed a unique key prop. This improves code readability and React’s ability to efficiently update the UI.

* **Explain React Map, map() function**

The map() function in React is used to iterate over arrays and return JSX elements. It enables dynamic rendering of lists based on data and should include a key for each item.

**Creating a React App named “bloggerapp” in with 3 components.**

1. **Create the project**

npx create-react-app bloggerapp

cd bloggerapp

1. **App.js**

import React, { useState } from "react";

import BookDetails from "./components/BookDetails";

import BlogDetails from "./components/BlogDetails";

import CourseDetails from "./components/CourseDetails";

function App() {

  const [selected, setSelected] = useState("book");

  const renderComponent = () => {

    switch (selected) {

      case "book":

        return <BookDetails />;

      case "blog":

        return <BlogDetails />;

      case "course":

        return <CourseDetails />;

      default:

        return <p>Please select a section</p>;

    }

  };

  return (

    <div className="App">

      <h1>Blogger App</h1>

      <div>

        <button onClick={() => setSelected("book")}>Book</button>

        <button onClick={() => setSelected("blog")}>Blog</button>

        <button onClick={() => setSelected("course")}>Course</button>

        <button onClick={() => setSelected("")}>Clear</button>

      </div>

      <div style={{ marginTop: "20px" }}>

        {/\* 1. Using switch-case \*/}

        {renderComponent()}

        {/\* 2. Ternary Operator \*/}

        {/\* {selected === "book" ? <BookDetails /> : <p>Book not selected</p>} \*/}

        {/\* 3. Logical AND (&&) \*/}

        {/\* {selected === "blog" && <BlogDetails />} \*/}

        {/\* 4. IIFE - Immediately Invoked Function \*/}

        {/\* {(() => {

          if (selected === "course") return <CourseDetails />;

        })()} \*/}

        {/\* 5. if-else outside JSX (uncomment below) \*/}

        {/\*

          let content;

          if (selected === "book") content = <BookDetails />;

          else if (selected === "blog") content = <BlogDetails />;

          else if (selected === "course") content = <CourseDetails />;

          return content;

        \*/}

      </div>

    </div>

  );

}

export default App;

1. **BookDetails.js**

import React from "react";

function BookDetails() {

  return (

    <div>

      <h2>📘 Book Details</h2>

      <p><strong>Title:</strong> Clean Code</p>

      <p><strong>Author:</strong> Robert C. Martin</p>

      <p><strong>Price:</strong> ₹499</p>

    </div>

  );

}

export default BookDetails;

1. **BlogDetails.js**

import React from "react";

function BlogDetails() {

return (

<div>

<h2>📝 Blog Details</h2>

<p><strong>Title:</strong> Mastering React</p>

<p><strong>Author:</strong> Jane Doe</p>

<p><strong>Price:</strong> ₹0 (Free)</p>

</div>

);

}

export default BlogDetails;

1. **CourseDetails.js**

import React from "react";

function CourseDetails() {

return (

<div>

<h2>📚 Course Details</h2>

<p><strong>Course Name:</strong> Full Stack Development</p>

<p><strong>Instructor:</strong> John Smith</p>

<p><strong>Price:</strong> ₹1,999</p>

</div>

);

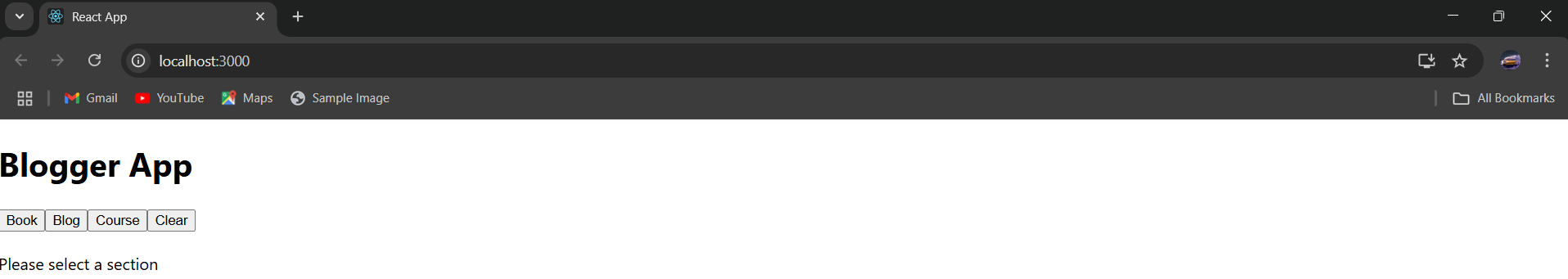
}

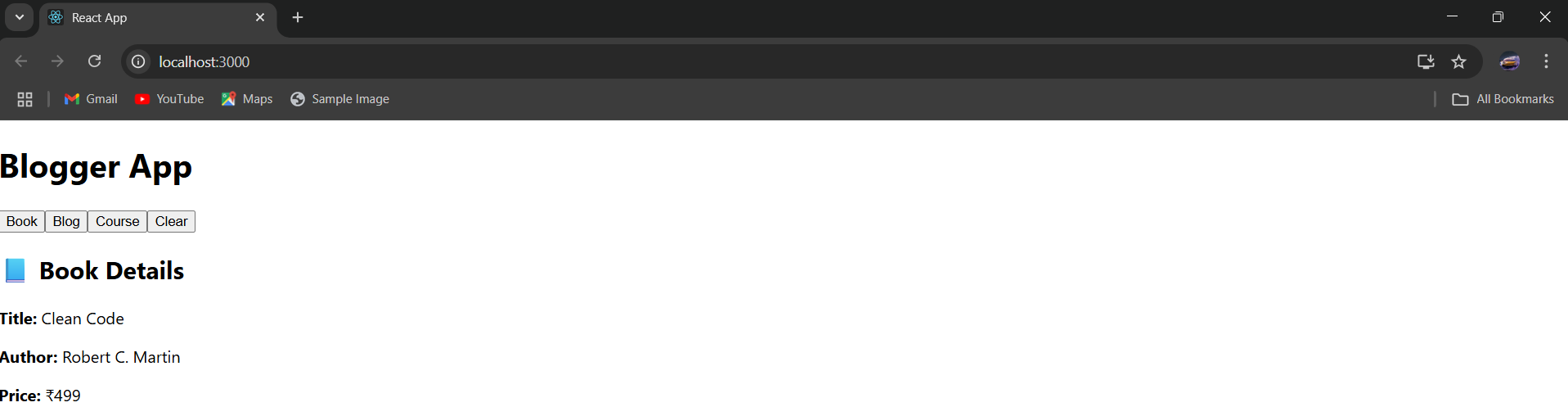
export default CourseDetails;

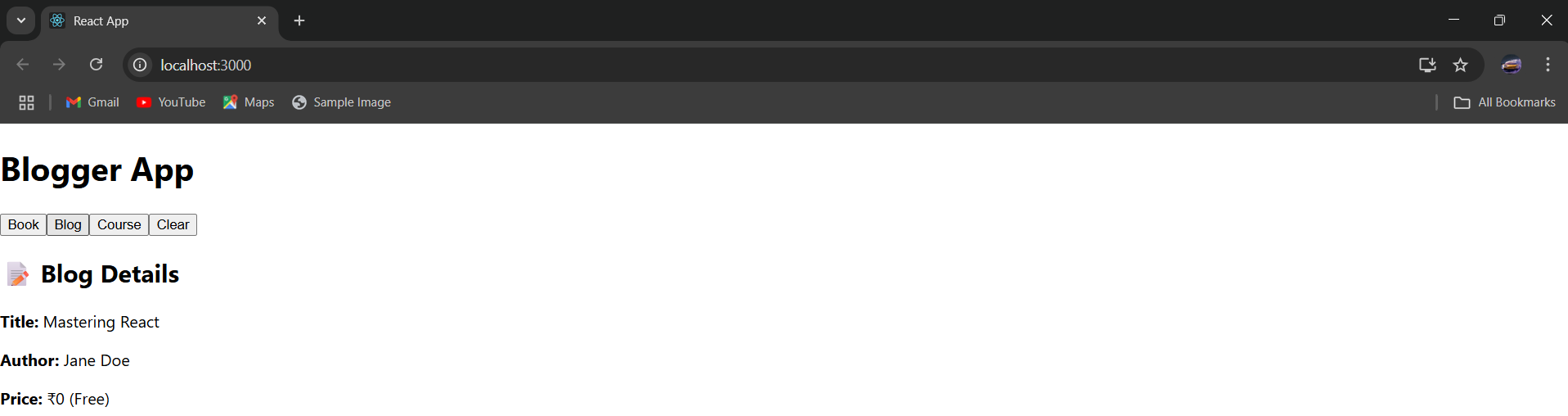
1. **Run the project**

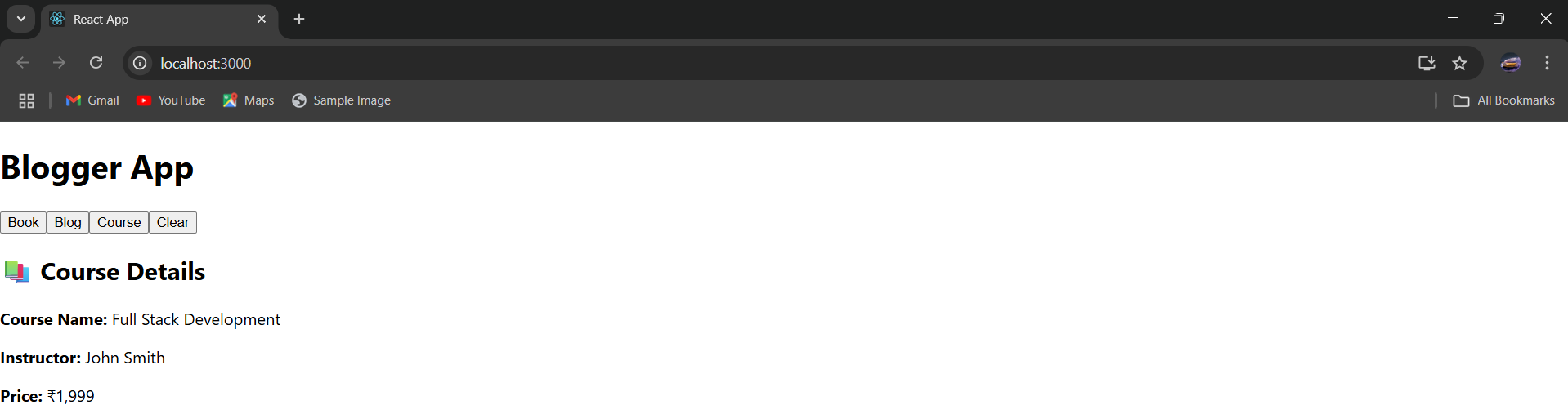
**Npm start**

[**http://localhost:3000/**](http://localhost:3000/)

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