TASK-14

Building a To-Do List App:

14. Bind 'this' to a Class Method:

- *Create a `TodoApp.jsx` class component where `this` is bound to methods for adding and removing tasks.*

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1. *Create the Project:*

```
npx create-react-app todo-app
cd todo-app
```

2. *Set Up the File Structure:*

```
/src
 ├── /components
 │          └── TodoApp.jsx
 ├── /styles
 │          └── TodoApp.css
 └── App.js
```

3. *Create the TodoApp.jsx Class Component:*

```
// /src/components/TodoApp.jsx

import React, { Component } from 'react';
import '../styles/TodoApp.css'; // Import the CSS file for styling

class TodoApp extends Component {
  constructor(props) {
    super(props);
    this.state = {
      tasks: [], // List of tasks
      currentTask: '', // Current task input value
    };

    // Bind the methods to 'this'
    this.addTask = this.addTask.bind(this);
    this.removeTask = this.removeTask.bind(this);
    this.handleInputChange = this.handleInputChange.bind(this);
  }
```

```
// Method to handle input changes
handleInputChange(event) {
 this.setState({ currentTask: event.target.value });
}

// Method to add a task
addTask() {
 if (this.state.currentTask.trim() !== '') {
  this.setState((prevState) => ({
   tasks: [...prevState.tasks, prevState.currentTask],
   currentTask: '', // Reset the input field
  }));
 }
}

// Method to remove a task by index
removeTask(taskIndex) {
 this.setState((prevState) => ({
  tasks: prevState.tasks.filter((_, index) => index !== taskIndex),
 }));
}

render() {
 return (
  <div className="todo-app">
   <h1>Todo List</h1>

   {/* Input field for adding tasks */}
   <div className="input-section">
    <input
     type="text"
     value={this.state.currentTask}
     onChange={this.handleInputChange}
     placeholder="Enter task"
    />
    <button onClick={this.addTask}>Add Task</button>
   </div>

   {/* Task list display */}
   <div className="task-list">
    <ul>
     {this.state.tasks.map((task, index) => (
      <li key={index}>
       {task}
       <button onClick={() => this.removeTask(index)}>Remove</button>
      </li>
     ))}
```

```
          </ul>
        </div>
      </div>
    );
  }
}

export default TodoApp;
```

---

4. Create the CSS File for Styling:

```
/* /src/styles/TodoApp.css */

/* Existing styles for TodoApp */
.todo-app {
  display: flex;
  flex-direction: column;
  align-items: center;
  width: 100%;
  max-width: 400px;
  margin: 50px auto;
  padding: 20px;
  background-color: #f9f9f9;
  border-radius: 10px;
  box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
}

h1 {
  font-size: 2em;
  margin-bottom: 20px;
}

.input-section {
  display: flex;
  justify-content: space-between;
  width: 100%;
}

input[type='text'] {
  width: 70%;
  padding: 8px;
  font-size: 1.2em;
  margin-right: 10px;
  border: 1px solid #ccc;
  border-radius: 5px;
}

button {
  padding: 8px 16px;
  font-size: 1.2em;
  cursor: pointer;
  background-color: #4caf50;
  color: white;
  border: none;
  border-radius: 5px;
}

button:hover {
  background-color: #45a049;
}

.task-list {
  width: 100%;
  margin-top: 20px;
}

ul {
  list-style-type: none;
  padding: 0;
}

li {
  display: flex;
  justify-content: space-between;
  align-items: center;
  background-color: #f1f1f1;
  padding: 10px;
  margin-bottom: 10px;
  border-radius: 5px;
}

button {
  background-color: #f44336;
  color: white;
}

button:hover {
  background-color: #e53935;
}
```

5. Integrate TodoApp into the Main App.js:

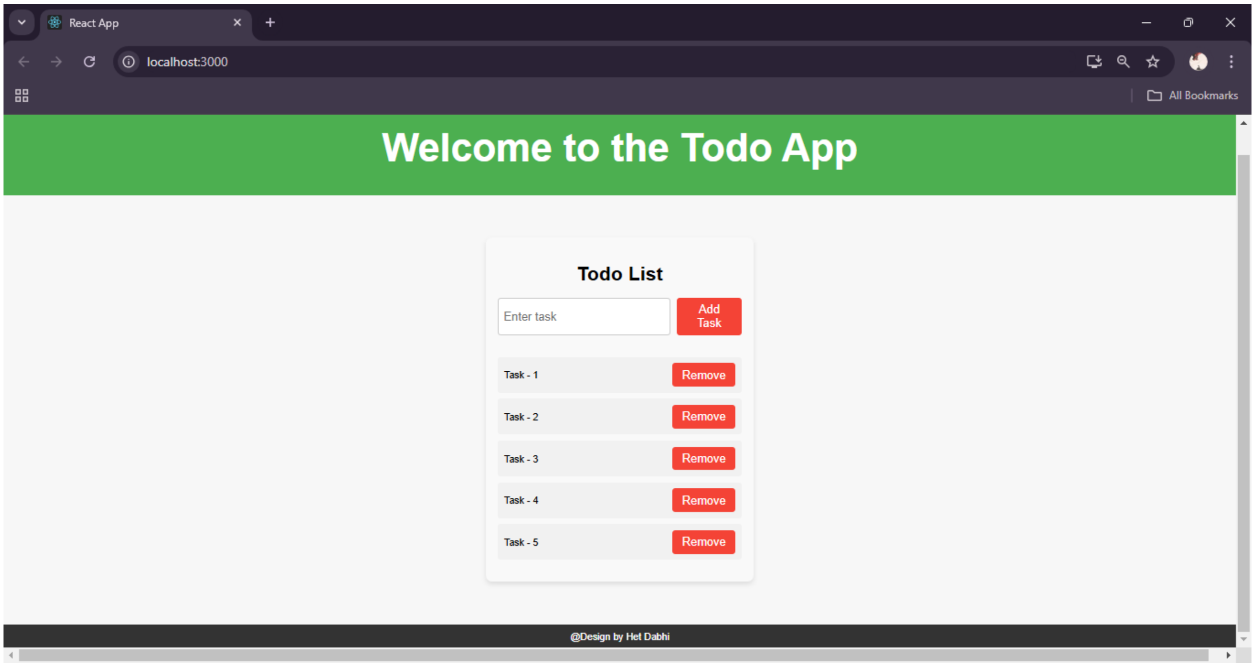
```
// /src/App.js

import React from 'react';
import TodoApp from './components/TodoApp'; // Import the TodoApp component
import './App.css'; // Import the App styles (footer and general layout)

function App() {
  return (
    <div className="App">
      <div className="App-header">
        <h1>Welcome to the Todo App</h1>
      </div>

      <div className="content-wrapper">
        <TodoApp />
      </div>

      {/* App-level footer */}
      <div className="App-footer">
        <p>@Design by Het Dabhi</p>
      </div>
    </div>
  );
}

export default App;
```

---

6. src/App.css:

```
/* src/App.css */
.App {
  display: flex;
  flex-direction: column;
  align-items: center;
  background-color: #f7f7f7;
  font-family: Arial, sans-serif;
  height: 100vh;
}

.App-header {
  background-color: #4CAF50;
  color: white;
  width: 100%;
  padding: 20px;
  text-align: center;
  font-size: 2em;
}

.content-wrapper {
  display: flex;
  justify-content: center;
  width: 100%;
  padding: 20px;
  flex-grow: 1; /* Ensures the content takes all available space */
}

/* App-level footer */
.App-footer {
  width: 100%;
  background-color: #333;
  color: white;
  text-align: center;
  padding: 10px 0;
  position: relative;
  bottom: 0;
  margin-top: auto; /* Pushes the footer to the bottom */
}

.App-footer p {
  margin: 0;
  font-size: 1em;
}
```

Output:



Welcome to the Todo App

Todo List

Task - 1

Task - 2

Task - 3

Task - 4

Task - 5

@Design by Het Dabhi