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REACT PRACTICE 3.1

1.App.jsx code:

```
import React from "react";


function ProductCard({ name, price, status }) {
  return (
    <div style={styles.card}>
      <h3 style={{ fontWeight: "bold" }}>{name}</h3>
      <p>Price: ${price}</p>
      <p>Status: {status}</p>
    </div>
  );
}
```

```
export default function App() {
  return (
    <div style={styles.container}>
      <h2 style={{ textAlign: "center" }}>Products List</h2>
      <div style={styles.grid}>
        <ProductCard name="Wireless Mouse" price={25.99} status="In Stock" />
        <ProductCard name="Keyboard" price={45.5} status="Out of Stock" />
        <ProductCard name="Monitor" price={199.99} status="In Stock" />
      </div>
    </div>
  );
}

const styles = {
  container: {
    padding: "20px",
    fontFamily: "Arial, sans-serif",
  },
  grid: {
    display: "flex",
    gap: "20px",
    justifyContent: "center",
  },
  card: {
    border: "1px solid #ccc",
    borderRadius: "10px",
    padding: "20px",
    textAlign: "center",
    width: "200px",
    boxShadow: "0px 2px 5px rgba(0,0,0,0.1)",
  },
};
```

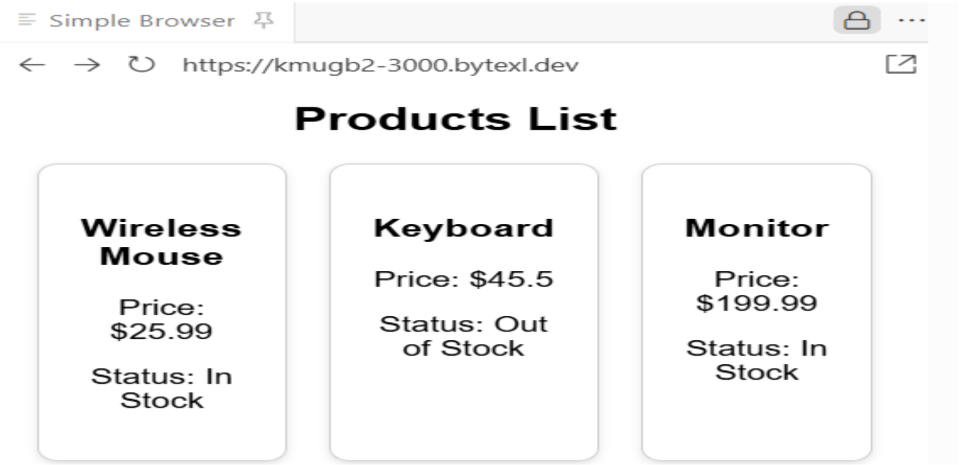
2.main.jsx code

```
import React from "react";
import ReactDOM from "react-dom/client";
import App from "./App.jsx";

ReactDOM.createRoot(document.getElementById("root")).render(
  <React.StrictMode>
    <App />
  </React.StrictMode>
);
```

3.index.html code

```
<!doctype html>

<html lang="en">

  <head>

    <meta charset="UTF-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <title>React App</title>

  </head>

  <body>

    <!-- ✅ React will render inside this div -->

    <div id="root"></div>

    <script type="module" src="/src/main.jsx"></script>

  </body>

</html>
```

OUTPUT:



Products List

Wireless Mouse

Price: $25.99

Status: In Stock

Keyboard

Price: $45.5

Status: Out of Stock

Monitor

Price: $199.99

Status: In Stock

```
}
```

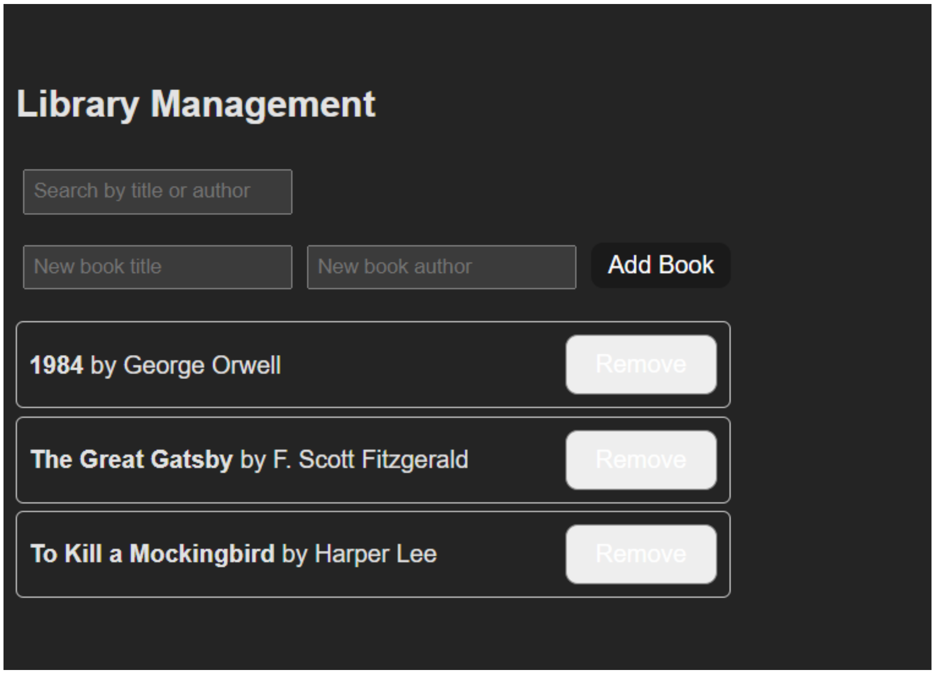
PRACTICE 3.2:

```
import React, { useState } from "react";

export default function App() {
  // Initial books
  const [books, setBooks] = useState([
    { title: "1984", author: "George Orwell" },
    { title: "The Great Gatsby", author: "F. Scott Fitzgerald" },
    { title: "To Kill a Mockingbird", author: "Harper Lee" },
  ]);

  const [search, setSearch] = useState("");
  const [newTitle, setNewTitle] = useState("");
  const [newAuthor, setNewAuthor] = useState("");

  // ✅ Add book
  const addBook = () => {
    if (newTitle.trim() && newAuthor.trim()) {
      setBooks([...books, { title: newTitle, author: newAuthor }]);
      setNewTitle("");
      setNewAuthor("");
    }
  };
```

```
// ✅ Remove book
const removeBook = (index) => {
  setBooks(books.filter((_, i) => i !== index));
};

// ✅ Filter books (search by title or author)
const filteredBooks = books.filter(
  (book) =>
    book.title.toLowerCase().includes(search.toLowerCase()) ||
    book.author.toLowerCase().includes(search.toLowerCase())
);

return (
  <div style={styles.container}>
    <h2>Library Management</h2>

    {/* Search Input */}
    <input
      type="text"
      placeholder="Search by title or author"
      value={search}
      onChange={(e) => setSearch(e.target.value)}
      style={styles.input}
    />

    {/* Add Book Form */}
    <div style={styles.form}>
      <input
        type="text"
        placeholder="New book title"
        value={newTitle}
        onChange={(e) => setNewTitle(e.target.value)}
        style={styles.input}
      />
      <input
        type="text"
        placeholder="New book author"
        value={newAuthor}
        onChange={(e) => setNewAuthor(e.target.value)}
        style={styles.input}
      />
      <button onClick={addBook} style={styles.button}>Add Book</button>
    </div>

    {/* Book List */}
```

```
      <ul style={styles.list}>
        {filteredBooks.map((book, index) => (
          <li key={index} style={styles.bookItem}>
            <span>
              <strong>{book.title}</strong> by {book.author}
            </span>
            <button onClick={() => removeBook(index)} style={styles.removeBtn}>
              Remove
            </button>
          </li>
        ))}
      </ul>
    </div>
  );
}

// ✅ Simple inline styles
const styles = {
  container: { padding: "20px", fontFamily: "Arial, sans-serif" },
  input: { margin: "5px", padding: "5px" },
  form: { marginTop: "10px", marginBottom: "10px" },
  button: { padding: "5px 10px", marginLeft: "5px" },
  list: { listStyle: "none", padding: 0 },
  bookItem: {
    display: "flex",
    justifyContent: "space-between",
    alignItems: "center",
    border: "1px solid #ccc",
    padding: "8px",
    marginBottom: "5px",
    borderRadius: "5px",
  },
  removeBtn: { background: "#eee", border: "1px solid #888", cursor: "pointer" },
};
```

OUTPUT:



Library Management

1984 by George Orwell

The Great Gatsby by F. Scott Fitzgerald

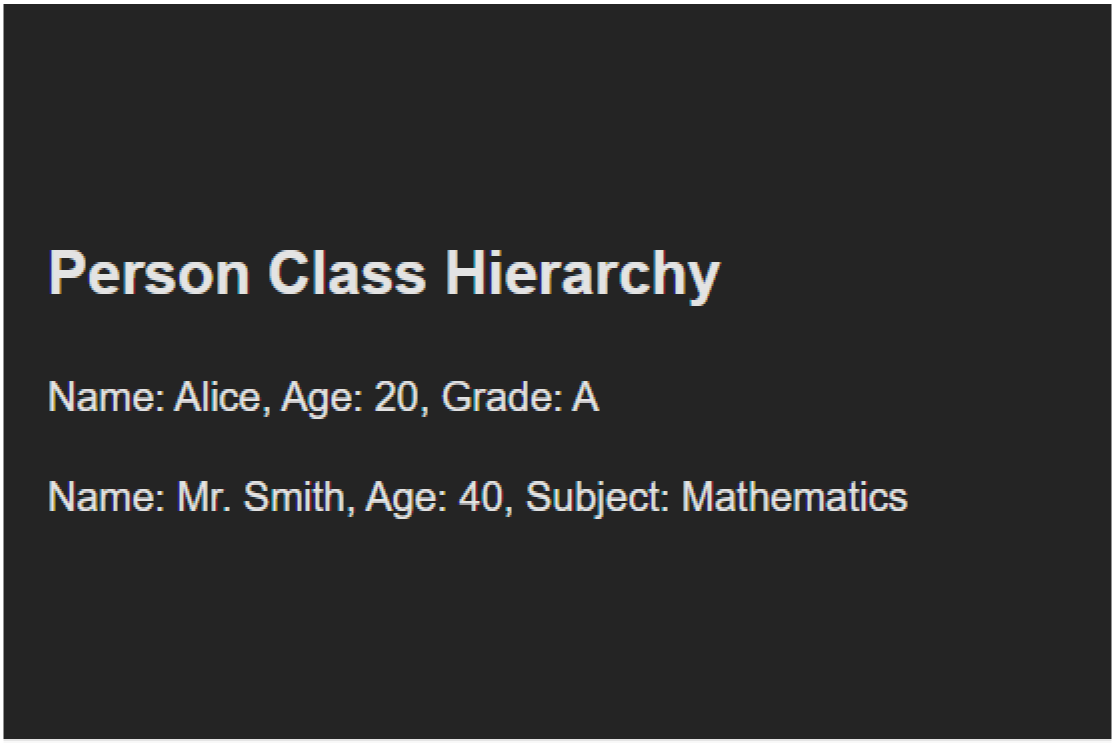
To Kill a Mockingbird by Harper Lee

PRACTICE 3.3:

```
import React from "react";

class Person {
  constructor(name, age) {
    this.name = name;
    this.age = age;
  }

  displayInfo() {
    return `Name: ${this.name}, Age: ${this.age}`;
  }
}

class Student extends Person {
  constructor(name, age, grade) {
    super(name, age);
    this.grade = grade;
  }

  displayInfo() {
    return `${super.displayInfo()}, Grade: ${this.grade}`;
  }
```

```
}

class Teacher extends Person {
  constructor(name, age, subject) {
    super(name, age);
    this.subject = subject;
  }

  displayInfo() {
    return `${super.displayInfo()}, Subject: ${this.subject}`;
  }
}

export default function App() {
  const student1 = new Student("Alice", 20, "A");
  const teacher1 = new Teacher("Mr. Smith", 40, "Mathematics");

  return (
    <div style={{ padding: "20px", fontFamily: "Arial, sans-serif" }}>
      <h2>Person Class Hierarchy</h2>
      <p>{student1.displayInfo()}</p>
      <p>{teacher1.displayInfo()}</p>
    </div>
  );
}
```

OUTPUT:



Person Class Hierarchy

Name: Alice, Age: 20, Grade: A

Name: Mr. Smith, Age: 40, Subject: Mathematics