

EXP-3.2

AIM- Build an interactive library management interface using React that allows users to view a list of books and perform actions like searching, adding, and removing books. This task strengthens your understanding of state management, event handling, and dynamic rendering in React.

CODE-

1. ProductCard.jsx

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

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

  const [searchTerm, setSearchTerm] = useState("");
  const [newTitle, setNewTitle] = useState("");
  const [newAuthor, setNewAuthor] = useState("");

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

```
};
```

```
// Remove book function
```

```
const removeBook = (index) => {  
  const updatedBooks = books.filter((_, i) => i !== index);  
  setBooks(updatedBooks);  
};
```

```
// Filtered books
```

```
const filteredBooks = books.filter(  
  (book) =>  
    book.title.toLowerCase().includes(searchTerm.toLowerCase()) ||  
    book.author.toLowerCase().includes(searchTerm.toLowerCase())  
);
```

```
return (
```

```
<div style={{ padding: "20px", maxWidth: "500px", margin: "auto" }}>
```

```
<h2>  Library Management</h2>
```

```
{/* Search */}
```

```
<input
```

```
  type="text"
```

```
  placeholder="Search by title or author"
```

```
  value={searchTerm}
```

```
  onChange={(e) => setSearchTerm(e.target.value)}
```

```
  style={{ width: "100%", padding: "8px", marginBottom: "10px" }}
```

```
{/* Add Book */}
```

```
<div style={{ marginBottom: "10px" }}>
```

```
<input
```

```
  type="text"
```

```
placeholder="Book Title"
value={newTitle}
onChange={(e) => setNewTitle(e.target.value)}
style={{ padding: "8px", marginRight: "5px" }}
/>
<input
  type="text"
  placeholder="Author"
  value={newAuthor}
  onChange={(e) => setNewAuthor(e.target.value)}
  style={{ padding: "8px", marginRight: "5px" }}
/>
<button onClick={addBook} style={{ padding: "8px" }}>
  Add
</button>
</div>
```

```
{/* Book List */}
<ul>
  {filteredBooks.map((book, index) => (
    <li key={index} style={{ marginBottom: "8px" }}>
      <b>{book.title}</b> by {book.author}
      <button
        onClick={() => removeBook(index)}
        style={{
          marginLeft: "10px",
          padding: "4px 8px",
          background: "red",
          color: "white",
          border: "none",
          cursor: "pointer"
        }}
      >
```



```
        Remove
      </button>
    </li>
  )}
</ul>
</div>
);
}
```

2. App.jsx

```
import React from "react";
import LibraryManagement from "../LibraryManagement";

function App() {
  return (
    <div>
      <LibraryManagement />
    </div>
  );
}

export default App;
```

OUTPUT-

