

## **Experiment - 3.2**

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Subject - Full Stack

### **Title**

Library Management UI with Search, Add, and Remove Book Functionality

### **Objective**

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 Implementation( React on 'StackBlitz' ) :**

#### **App.js**

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

```
import "./App.css";
```

```
function App() {
```

```
  const [books, setBooks] = useState([
```

```
    { id: 1, title: "The Great Gatsby", author: "F. Scott Fitzgerald" },
```

```
    { id: 2, title: "1984", author: "George Orwell" },
```

```
    { id: 3, title: "To Kill a Mockingbird", author: "Harper Lee" },
```

```
  ];
```

```
const [searchTerm, setSearchTerm] = useState("");
```

```
const [newTitle, setNewTitle] = useState("");
```

```
const [newAuthor, setNewAuthor] = useState("");
```

```
const handleRemove = (id) => {
```

```
  setBooks(books.filter((book) => book.id !== id));
```

```
};
```

```
const handleAddBook = (e) => {
```

```
  e.preventDefault();
```

```
  if (!newTitle.trim() || !newAuthor.trim()) return;
```

```
  setBooks([
```

```
    ...books,
```

```
    { id: Date.now(), title: newTitle, author: newAuthor },
```

```
  ]);
```

```
  setNewTitle("");
```

```
  setNewAuthor("");
```

```
};
```

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

```
return (
  <div className="app-container">
    <h1>Library Management</h1>

    <input
      type="text"
      placeholder="Search by title or author..."
      value={searchTerm}
      onChange={(e) => setSearchTerm(e.target.value)}
      className="search-box"
    />

    <form onSubmit={handleAddBook} className="add-book-form">
      <input
        type="text"
```

```
placeholder="Book Title"

value={newTitle}

onChange={(e) => setNewTitle(e.target.value)}

/>

<input

  type="text"

  placeholder="Author"

  value={newAuthor}

  onChange={(e) => setNewAuthor(e.target.value)}

/>

<button type="submit">Add Book</button>

</form>

<ul className="books-list">

  {filteredBooks.length > 0 ? (

    filteredBooks.map((book) => (

      <li key={book.id} className="book-item">

        <span>

          <strong>{book.title}</strong> by {book.author}

        </span>

        <button onClick={() => handleRemove(book.id)}>Remove</button>

      </li>

    )

  )

}
```

```
        </li>

    ))

    ) : (

        <li>No books found.</li>

    )}

</ul>

</div>

);

}
```

```
export default App;
```

### **App.css**

```
.app-container {

    max-width: 600px;

    margin: 50px auto;

    font-family: Arial, sans-serif;

    text-align: center;

}

h1 {
```

```
    color: #333;  
}
```

```
.search-box {  
    padding: 10px;  
    width: 80%;  
    margin-bottom: 20px;  
    font-size: 16px;  
}
```

```
.add-book-form {  
    display: flex;  
    justify-content: center;  
    gap: 10px;  
    margin-bottom: 20px;  
}
```

```
.add-book-form input {  
    padding: 8px;  
    font-size: 14px;  
}
```

```
.add-book-form button {  
  padding: 8px 12px;  
  font-size: 14px;  
  cursor: pointer;  
}
```

```
.books-list {  
  list-style: none;  
  padding: 0;  
}
```

```
.book-item {  
  display: flex;  
  justify-content: space-between;  
  align-items: center;  
  padding: 8px 12px;  
  border-bottom: 1px solid #ccc;  
}
```

```
.book-item button {
```

```
background-color: #ff4d4f;
color: white;
border: none;
padding: 5px 10px;
cursor: pointer;
border-radius: 4px;
}
```

```
.book-item button:hover {
background-color: #ff7875;
}
```

## Output

# Library Management

**The Great Gatsby** by F. Scott Fitzgerald

Remove

**1984** by George Orwell

Remove

**To Kill a Mockingbird** by Harper Lee

Remove



