

FULLSTACK - EXPERIMENT-3.2

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

AIM

Build an interactive library management interface using React that allows users to view, search, add, and remove books dynamically without reloading the page.

CODE

```
import React, { useState } from 'react';
import './Library.css';

function Library() {
  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('');

  const addBook = () => {
    if (newTitle && newAuthor) {
      setBooks([...books, { title: newTitle, author: newAuthor }]);
      setNewTitle('');
      setNewAuthor('');
    }
  };

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

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

  return (
    <div className="library">
      <h1>Library Management</h1>
      <input
        type="text"
        placeholder="Search by title or author"
        value={search}
        onChange={e => setSearch(e.target.value)}
      />
    </div>
  );
}
```

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

{filteredBooks.map((book, index) => (
<li key={index}>
{book.title} by {book.author}
<button onClick={() => removeBook(index)}>Remove</button>

))}

</div>
);
}
export default Library;
/* Library.css */
.library {
font-family: Arial, sans-serif;
max-width: 600px;
margin: auto;
}
.library input {
padding: 8px;
margin: 5px;
}
.add-book input {
width: 40%;
}
button {
padding: 8px 12px;
margin-left: 5px;
cursor: pointer;
}
ul {
list-style: none;
padding: 0;

```
}
li {
  display: flex;
  justify-content: space-between;
  padding: 10px;
  border: 1px solid #ddd;
  margin: 5px 0;
  border-radius: 5px;
}
```

OUTPUT

Library Management

Add Book

1984 by George Orwell

Remove

The Great Gatsby by F. Scott Fitzgerald

Remove

To Kill a Mockingbird by Harper Lee

Remove

Library Management

Add Book

The Great Gatsby by F. Scott Fitzgerald

Remove