

EXPERIMENT 3.2

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

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Library Management</title>

  <style>
    /* --- CSS Styling --- */
    body {
      font-family: -apple-system, BlinkMacSystemFont, "Segoe UI", Roboto, "Helvetica
Neue", Arial, sans-serif;
      background-color: #f4f7f6;
      color: #333;
      margin: 0;
      padding: 20px;
    }

    .container {
      max-width: 900px;
      margin: 0 auto;
      background: #fff;
      padding: 30px;
      border-radius: 10px;
      box-shadow: 0 4px 15px rgba(0, 0, 0, 0.1);
    }

    h1, h2 {
      text-align: center;
      color: #2c3e50;
    }

    .search-container {
      text-align: center;
      margin-bottom: 20px;
    }

    #search-input {
      width: 100%;
      max-width: 400px;
      padding: 12px;
      border: 2px solid #ddd;
      border-radius: 5px;
      font-size: 16px;
```

```
    transition: border-color 0.3s;
}

#search-input:focus {
    outline: none;
    border-color: #3498db;
}

.form-container {
    background: #ecf0f1;
    padding: 20px;
    border-radius: 8px;
    margin-bottom: 20px;
}

.form-group {
    margin-bottom: 15px;
}

.form-group label {
    display: block;
    margin-bottom: 5px;
    font-weight: bold;
}

.form-group input {
    width: 100%;
    padding: 10px;
    border: 1px solid #ddd;
    border-radius: 5px;
    box-sizing: border-box;
}

button[type="submit"] {
    display: block;
    width: 100%;
    padding: 12px;
    border: none;
    background-color: #3498db;
    color: #fff;
    font-size: 16px;
    font-weight: bold;
    border-radius: 5px;
    cursor: pointer;
    transition: background-color 0.3s;
}

button[type="submit"]:hover {
    background-color: #2980b9;
}
```

```
.books-container {
    overflow-x: auto;
}

#books-table {
    width: 100%;
    border-collapse: collapse;
    margin-top: 20px;
}

#books-table th, #books-table td {
    padding: 12px 15px;
    text-align: left;
    border-bottom: 1px solid #ddd;
}

#books-table th {
    background-color: #f8f9fa;
    color: #7f8c8d;
    text-transform: uppercase;
}

#books-table tbody tr:hover {
    background-color: #f1f1f1;
}

.remove-btn {
    background-color: #e74c3c;
    color: #fff;
    border: none;
    padding: 6px 12px;
    border-radius: 4px;
    cursor: pointer;
    font-size: 14px;
    transition: background-color 0.3s;
}

.remove-btn:hover {
    background-color: #c0392b;
}

@media (max-width: 600px) {
    .container {
        padding: 15px;
    }
}
</style>
</head>
<body>
```

```

<div class="container">
  <h1>Library Management</h1>

  <div class="search-container">
    <input type="text" id="search-input" placeholder="Search for a book...">
  </div>

  <div class="form-container">
    <h2>Add New Book</h2>
    <form id="book-form">
      <div class="form-group">
        <label for="title">Title:</label>
        <input type="text" id="title" required>
      </div>
      <div class="form-group">
        <label for="author">Author:</label>
        <input type="text" id="author" required>
      </div>
      <div class="form-group">
        <label for="pages">Pages:</label>
        <input type="number" id="pages" required>
      </div>
      <button type="submit">Add Book</button>
    </form>
  </div>

  <div class="books-container">
    <h2>My Books</h2>
    <table id="books-table">
      <thead>
        <tr>
          <th>Title</th>
          <th>Author</th>
          <th>Pages</th>
          <th>Actions</th>
        </tr>
      </thead>
      <tbody>
        </tbody>
      </table>
    </div>
  </div>

  <script>
    // --- JavaScript Functionality ---
    document.addEventListener('DOMContentLoaded', () => {
      const bookForm = document.getElementById('book-form');
      const titleInput = document.getElementById('title');
      const authorInput = document.getElementById('author');
      const pagesInput = document.getElementById('pages');
    });
  </script>

```

```

const booksTableBody = document.querySelector('#books-table tbody');
const searchInput = document.getElementById('search-input');

let myLibrary = [
  { title: 'The Hobbit', author: 'J.R.R. Tolkien', pages: 310 },
  { title: 'The Lord of the Rings', author: 'J.R.R. Tolkien', pages: 1178 },
  { title: 'Dune', author: 'Frank Herbert', pages: 412 }
];

// Function to render books from the library array
function renderBooks(books) {
  booksTableBody.innerHTML = "";
  books.forEach((book, index) => {
    const row = document.createElement('tr');
    row.innerHTML = `
      <td>${book.title}</td>
      <td>${book.author}</td>
      <td>${book.pages}</td>
      <td><button class="remove-btn" data-
index="${index}">Remove</button></td>
    `;
    booksTableBody.appendChild(row);
  });
}

// Function to add a new book
function addBook(event) {
  event.preventDefault();
  const newBook = {
    title: titleInput.value,
    author: authorInput.value,
    pages: pagesInput.value,
  };
  myLibrary.push(newBook);
  renderBooks(myLibrary);
  bookForm.reset();
}

// Function to remove a book
function removeBook(event) {
  if (event.target.classList.contains('remove-btn')) {
    const index = event.target.getAttribute('data-index');
    myLibrary.splice(index, 1);
    renderBooks(myLibrary);
  }
}

// Function to search for books
function searchBooks() {
  const searchTerm = searchInput.value.toLowerCase();

```

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

// Event Listeners
bookForm.addEventListener('submit', addBook);
booksTableBody.addEventListener('click', removeBook);
searchInput.addEventListener('input', searchBooks);

// Initial rendering of books
renderBooks(myLibrary);
});
</script>
</body>
</html>
```

Library Management

Add New Book

Title:

Author:

Pages:

Add Book

My Books

TITLE	AUTHOR	PAGES	ACTIONS
The Hobbit	J.R.R. Tolkien	310	<button>Remove</button>
The Lord of the Rings	J.R.R. Tolkien	1178	<button>Remove</button>