

Library System

1. Project Overview

A simple system to view, add, and delete books using MockAPI as a simulated database.

2. Client Needs & Entities

- Client needs a system to track books (view, add, delete, search).
- Main entity:
 - Book (id, title, author)

Entities:

- **Book:** Represents each book in the library.

Primary Key (PK):

- id uniquely identifies each book.

Attributes:

- title: Name of the book.
- author: Name of the book's author.

Books	
PK	<u>id</u>
	title
	author

Data is normalized to 3NF.

4. Database Design

- Using MockAPI to simulate the database.
- Books stored as JSON objects.

5. SQL Equivalent

- SELECT * FROM books
- INSERT INTO books (title, author) VALUES (...)
- DELETE FROM books WHERE id = ...

6. Data Input

More than 50 books were added via MockAPI.

7. Queries & Features

- Display all books
- Search by title
- Sort books

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- Add and delete books

8. Web Interface

- HTML, CSS, JavaScript
- Fetch API used for data interaction
- Real-time updates without page reload

9. Screenshots

- Main page layout

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Add New Book

Add Book

Book count: 47

Books in Library

ID	Title	Author	Actions
1	To Kill a Mockingbird	Harper Lee	<div>EditDelete</div>
2	1984	George Orwell	<div>EditDelete</div>
3	Pride and Prejudice	Jane Austen	<div>EditDelete</div>

- Books list view

Books in Library			
ID	Title	Author	Actions
1	To Kill a Mockingbird	Harper Lee	<div>EditDelete</div>
2	1984	George Orwell	<div>EditDelete</div>
3	Pride and Prejudice	Jane Austen	<div>EditDelete</div>
4	The Great Gatsby	F. Scott Fitzgerald	<div>EditDelete</div>
5	The Catcher in the Rye	J.D. Salinger	<div>EditDelete</div>
6	Moby-Dick	Herman Melville	<div>EditDelete</div>
7	Brave New World	Aldous Huxley	<div>EditDelete</div>
8	The Hobbit	J.R.R. Tolkien	<div>EditDelete</div>
9	Fahrenheit 451	Ray Bradbury	<div>EditDelete</div>

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- After adding or deleting a book

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Add New Book

Add Book

45	يوسف ايهاب	B3	<button>Edit</button>	<button>Delete</button>
46	234234	4	<button>Edit</button>	<button>Delete</button>
47	234234	4	<button>Edit</button>	<button>Delete</button>
48	يوسف ايهاب عبد الوارق	B3 Section	<button>Edit</button>	<button>Delete</button>

Reset All Books

- The entire website right here:

[\[Right here\]](#)

- database for my project

I used **MockAPI** to create a fake online database for my project.

1. I created a new project on **MockAPI.io**.
2. I added a **resource called "books"** to store information about books.
3. Each book has:
 - an **ID**
 - a **title**

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- an **author name**
4. I added **50 fake books** with different titles and authors.
 5. MockAPI gave me a **link (API endpoint)** that I can use in my website to:
 - Show all books (GET)
 - Add a new book (POST)
 - Edit book info (PUT)
 - Delete a book (DELETE)

The API link I used:

[MockAPI]