

Assignment No. 11

Aim : Create a web application that perform CRUD operations (database connectivity).

LO Mapped : LO-6

Theory: At a high level, CRUD apps consist of three parts; the database, user interface, and APIs.

Database:

The database is where your data is stored. A database management system is used to manage the database. There are several different types of database management systems (DBMS) that can be categorized by how they store data; relational (SQL), Document (NoSQL). SQL databases consist of tables. Tables consist of records. Records consist of fields. Fields consist of data.

User Interface:

The user interface (UI) is what your users interact with. Due to the increasing popularity of applications, businesses are now prioritizing user interface design and user experience.

APIs:

Finally, the APIs are how your application informs your database of what functions to perform. These functions can be modeled in different ways but they are designed to perform four basic CRUD operations; Create, Read, Update, Delete.

The CRUD acronym is a great, memorable framework for building applications and constructing usable models. We can examine why CRUD is essential from two fronts; developers and end-users.

1. For developers, CRUD operations are essential to app development. In a similar vein, REST, a superset of CRUD, is necessary for website development.
2. For end-users, CRUD operations allow them to fill out forms, edit data, manage their admin panels and user settings.

CRUD offers many other benefits including:

- Security control
- It is more performant vs. SQL statements
- It's tried and tested
- It's a recognized pattern and recognizable by most devs
- It simplifies the process and provides an easy framework for new developers to learn

Code and Output :

Table

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Books List

No	Title	Author	Publish Year	Operations
1	Harry Potter	J.k Rowling	1999	<div><div></div><div></div><div></div></div>
2	Atomic Habit	James Clear	2018	<div><div></div><div></div><div></div></div>

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Books List

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1999

Harry Potter

J.k Rowling

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2018

Atomic Habit

James Clear



Edit Book

Title

Harry Potter

Author

J.k Rowling

Publish Year

1999

Save



Create Book

Title

Atomic Habits

Author

James Clear

Publish Year

2018

Save



Delete Book

Are You Sure You want to delete this book?

Yes, Delete it



Show Book

Id 6532190d5f992f33138cd913

Title Harry Potter

Author J.k Rowling

Publish Year 1999

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Conclusion : We successfully implemented a web application with CRUD that is database connectivity.