**Laboratory Activity No. 3:**

**Topic belongs to: Programming Constructs and Paradigms  
Title: Implementing CRUD Operations for Books and Users in the Library Management System  
Introduction:  
This activity involves implementing CRUD (Create, Read, Update, Delete) operations for books and users in the Library Management System. You will create views and forms to handle these operations via a web interface.**

**Objectives:**

* **Create views for CRUD operations.**
* **Use Django forms to manage user input.**
* **Learn about Django’s URL routing for view handling.**

**Theory and Detailed Discussion:  
CRUD operations are the fundamental actions in any database-driven application. Django's views and forms make it easy to manage the interaction between the user and the database. Using Django’s URL routing system, we can map different actions (like creating or updating data) to specific views.**

**Django Program or Code:  
Code for views, forms, and URL patterns has been provided above.**

**Results:  
The user can now view the list of books, add new books, update existing books, and delete books.**

**My Github link:** **https://github.com/Caye17**

**How do Django forms work with models for CRUD operations?**  
Django forms, specifically ModelForm, automatically generate form fields based on a model’s attributes. This ensures consistency between the database schema and the form inputs, reducing the need for manual field definitions. Forms validate user input before saving data to the database, making CRUD operations more efficient and secure.

**What is the role of the redirect() function in Django views?**  
The redirect() function in Django is used to send users to another URL after performing an action. For example, after creating, updating, or deleting a book, redirect('book\_list') ensures that users are taken back to the book list page instead of staying on the form. This improves user experience and ensures that changes are reflected immediately.

**Findings:**  
Students can perform CRUD operations for books and users.

**Summary:**  
This activity allows students to implement and interact with the core database of the Library Management System.

**Conclusion:**  
CRUD functionality is essential for any web application, and students now have the ability to manage books in the system.