

Practice Assignment 6

LIBRARY MANAGEMENT SYSTEM

Following previous Practice Assignment, further develop the new layout and add model in the MVC framework

Introduction to the Admin Panel Lab Exercises

In this series of exercises, you will be building the **Admin Panel** for a library management system. The Admin Panel serves as the backend management interface where administrators can manage categories, authors, books, users, and loan records. By completing these exercises, you'll gain hands-on experience in implementing core functionality required to effectively manage library resources base on ASP.NET Core MVC version 8.0.

Overview of the Exercises

Reuse the models and interfaces from previous practice exercises, and based on them, continue to develop additional features

Each exercise focuses on a specific aspect of library management, including:

1. **Category Management** - Adding, updating, and deleting book categories.
2. **Author Management** - Managing information about authors, Adding, updating, and deleting author.
3. **Book Management** - Creating, updating, and deleting book records, including details like title, author, and category.
4. **User Management** - Managing library users, Adding, updating, and deleting.
5. **Loan Management** - Tracking book loans, Adding, updating, and deleting.

Exercise 1: Category Management

Objective: Create and implement functions to add, update, and delete categories in the library system.

Requirements:

- **Create Function:** Develop a form and controller action to add new categories to the Categories table.
- **Update Function:** Enable editing of category details by creating an Edit view and an Edit action in the controller. Pre-fill the form with the current category data, and save updates upon submission.
- **Delete Function:** Implement a delete action that prompts confirmation before removing a category.
- **UI:** Ensure each category is displayed in a list, with buttons for editing and deleting. Use Bootstrap or a similar framework for layout consistency.

Exercise 2: Author Management

- **Objective:** Implement functions for adding, updating, and deleting authors.
- **Requirements:**
 - **Create Function:** Create a form and controller action for adding new authors to the Authors table. Fields include FullName, Bio, and Nationality...etc.
 - **Update Function:** Add an Edit view and action to modify author details, displaying current values in the form and saving changes on submission.
 - **Delete Function:** Implement a delete action with confirmation to ensure data integrity.
 - **UI:** Display authors in a table format with edit and delete buttons, maintaining consistency with the category management UI.

Exercise 3: Book Management

- **Objective:** Develop functions for creating, updating, and deleting books in the system.
- **Requirements:**
 - **Create Function:** Create a form and controller action to add books. Fields include Title, AuthorId (with dropdown selection), CategoryId, Description, PublishedDate, and IsActive.
 - **Update Function:** Implement an edit view and controller action for updating book details, showing the current book information and updating records upon submission.
 - **Delete Function:** Add a delete action with a confirmation dialog.
 - **UI:** Display books with essential details like Title, Author, Category, and PublishedDate in a table. Add buttons for viewing, editing, and deleting each book entry.

Exercise 4: User Management

- **Objective:** Set up functions for adding, updating, and deleting users who access the library system.
- **Requirements:**
 - **Create Function:** Implement a form and controller action to register users, including fields like Username, FullName, Email, Password, RoleId, and IsActive.
 - **Update Function:** Create an edit view and action to modify user information, loading current user data in the form.
 - **Delete Function:** Include a delete action with confirmation for removing users.
 - **UI:** Display users in a list or table, showing details like Username, FullName, Email, and Role. Include buttons for editing and deleting users

Exercise 5: Loan Management

- **Objective:** Design and implement functions for managing book loans.
- **Requirements:**
 - **Create Function:** Develop a form and controller action to record new loans. Required fields include UserId, BookId, LoanDate, and ReturnDate.
 - **Update Function:** Allow editing of loan information, particularly for updating return dates. Create an edit view and action to manage this.
 - **Delete Function:** Implement a delete function for removing loan records, ensuring confirmation prompts to prevent accidental deletions.
 - **UI:** Show loan records in a table with details like User, Book, LoanDate, and ReturnDate. Add buttons for editing and deleting each record.