

# CAMPUS LIBRARY SYSTEM

**TEAM FAN**

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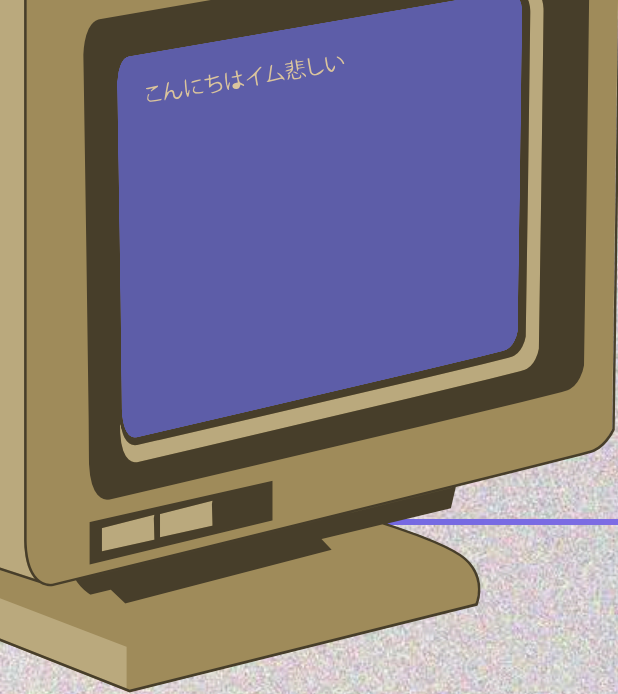
# BACKGROUND

This project is a desktop-based Campus Library System built using Object-Oriented Programming. It helps manage books, users, and transactions while applying key OOP principles for modularity and maintainability. The system improves efficiency for both librarians and students through a user-friendly interface and structured design. To achieve the intended functionality and learning outcomes, this project is guided by the following objectives:

1. Design a Campus Library System using OOP to manage borrowing, returning, and cataloging.
2. Apply OOP concepts: encapsulation, inheritance, polymorphism, and abstraction.
3. Provide a simple and user-friendly interface for librarians and students.
4. Replace manual processes with a more accurate, automated system.
5. Gain hands-on experience in design, coding, debugging, and testing.
6. Use JavaFX for the UI and MySQL for data storage.







# SYSTEM OVERVIEW

## Model:

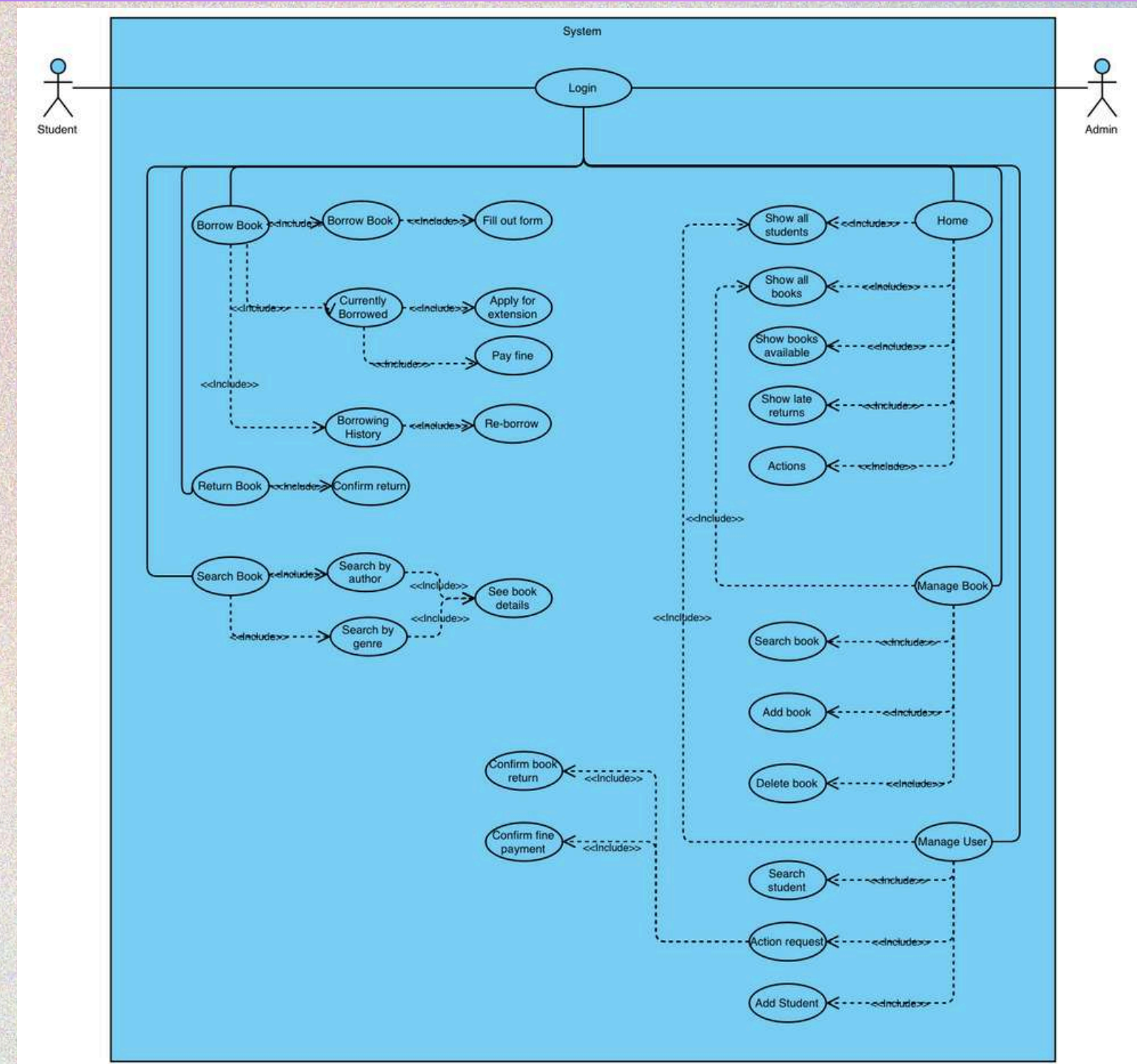
- Member (Students)
- Admin

This diagram shows the interaction between the Student and Admin actors with the library system.

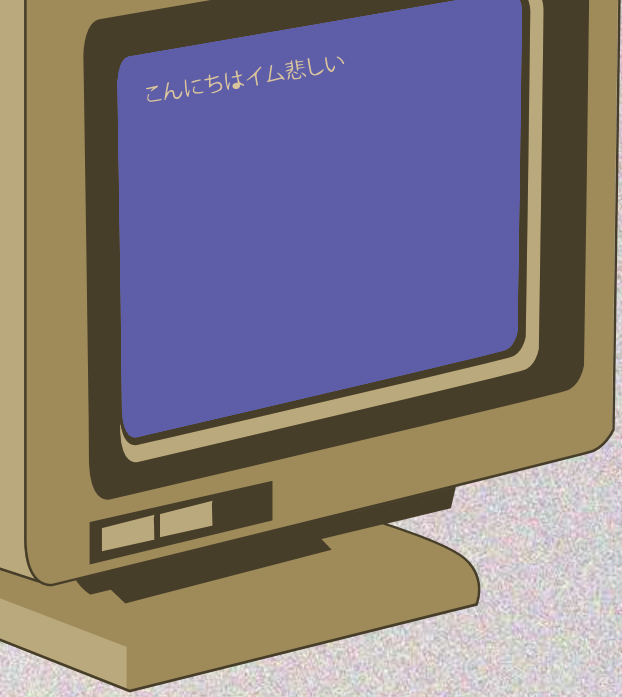
**Students** can borrow, search, and return books, while **Admins** manage books and users.

Related processes are connected using <<include>> to indicate dependencies

The **Controller** acts as the middleman between the **View** (user interface) and the **Model** (data and business logic) where it receives input from the user and then processes it.



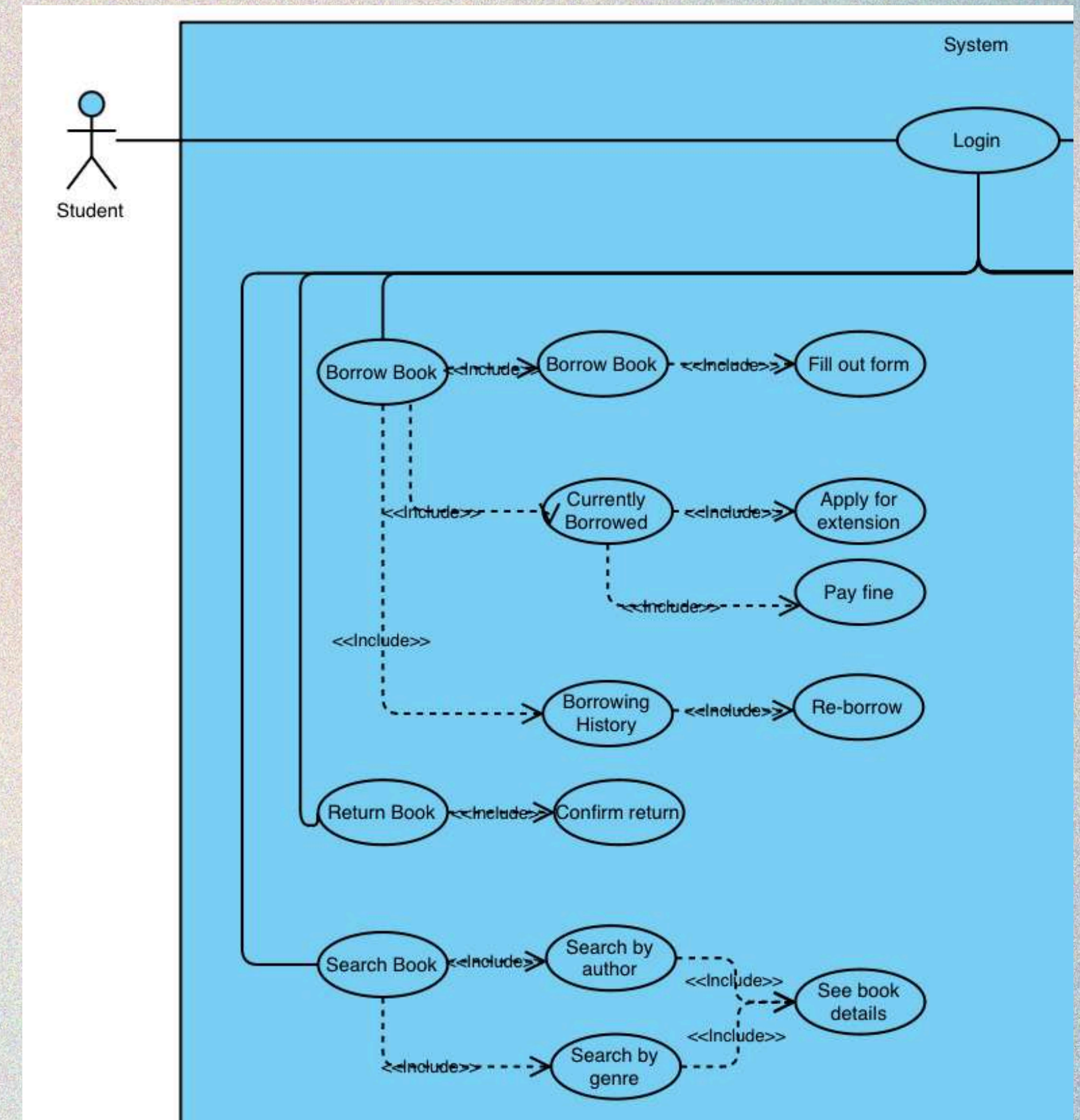




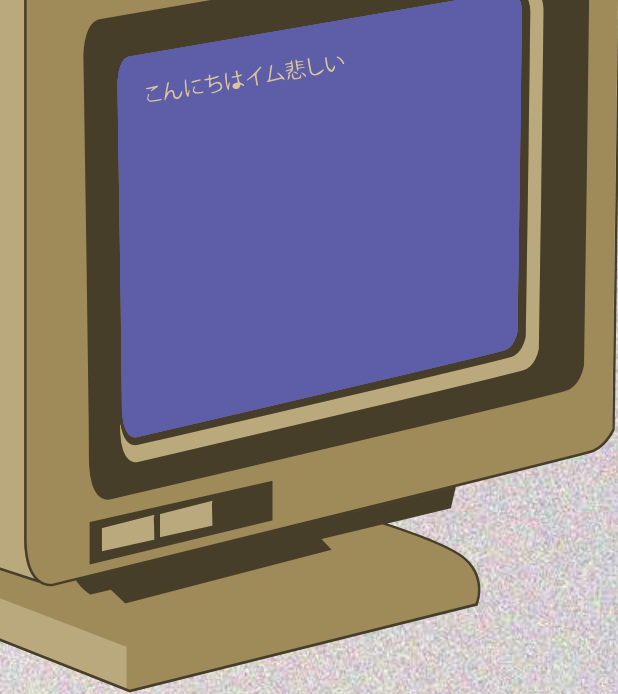
# DETAILED EXPLANATION

## Student Functionalities

- Login
- Book Borrowing:
  - Fill out form
  - View currently borrowed books
  - Request extension
  - Pay fine
- Book Return
- View Borrowing History
- Book Search:
  - Search book by title, author, genre
  - View book details



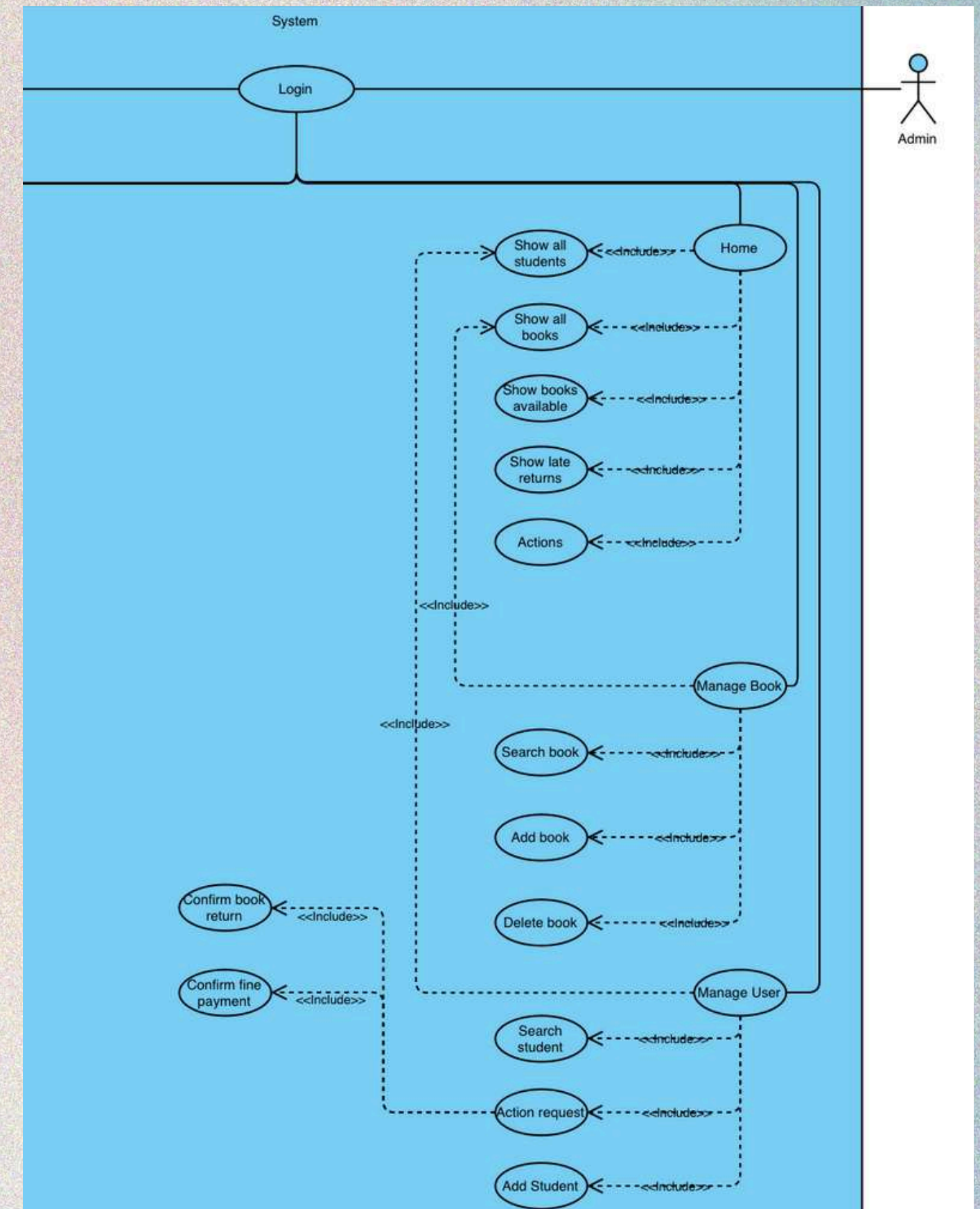




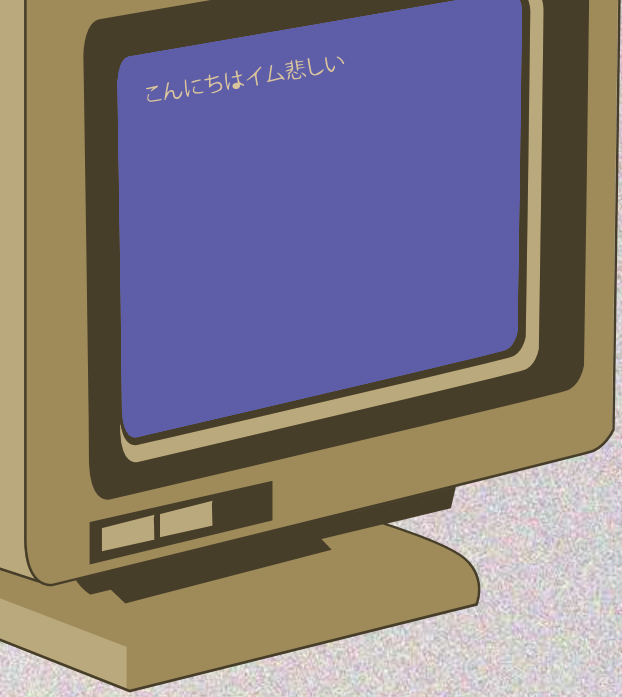
# DETAILED EXPLANATION

## Admin Functionalities

- Login
- Dashboard:
  - View all students
  - View all books
  - View available books
  - View late returns
- Book Management:
  - Search, Add, Delete books
- User Management:
  - Search student, Add student, Handle requests
- Confirm:
  - Book returns
  - Fine payments







# FEATURE DEMO

## Member Registration

Students can register a new account and fill out this form by filling their:

- Name
- Student ID (NIM)
- Choose their faculty and study program
- Email
- Phone number
- New password and confirm their password
- Address for library purposes

After filling out this registration of new member form, the students data is now added to the system and the student can carry out the login process to carry out the library system features.

Registrasi Anggota Perpustakaan UMM

my UMM Library

### Registrasi Anggota Perpustakaan UMM

Login Register

Nama :

NIM :

Fakultas :  Prodi :

Email :  No. HP :

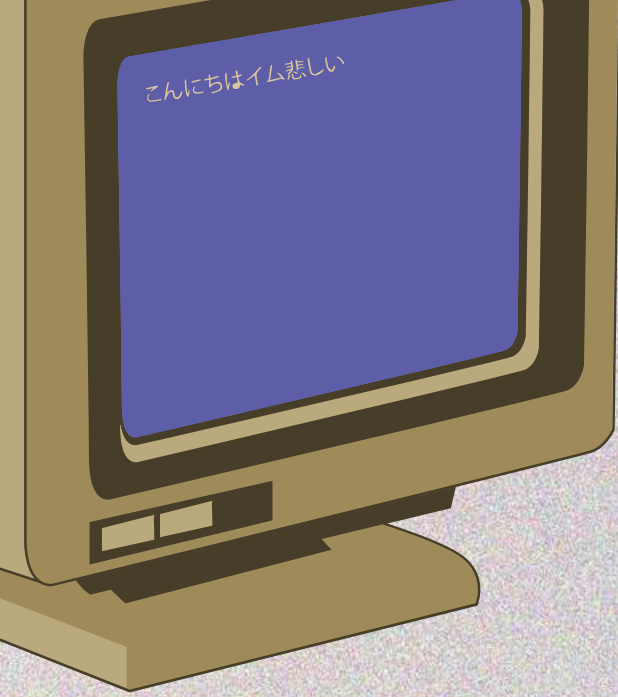
Password :  Confirm :

Alamat :

Daftar

Jalan Raya Tlogomas No. 246, Jatimulyo, Lowokwaru, Malang, Jawa Timur, 65144





# FEATURE DEMO

# Borrowing Book

In this dashboard, students can now borrow a book by filling out the:

- Book ID
- Title of the book
- Their full name
- Their student ID (NIM)
- Date of borrowing the book
- Date of returning the book

After filling out this borrowing book form, the dashboard will automatically change to “Currently Borrowed Book”, and the system would update the book detail as “Currently Borrowed”.

Student Dashboard - myUMM Library

LASER

myUMM Library

Profile

Borrow Book

Return Book

Search Book

Form Pengisian Peminjaman Buku

Pilih Buku yang Tersedia:

ID Buku	Judul	Penulis	Tersedia	
1	Laskar Pelangi	Andrea Hirata	2	
2	Ayat-Ayat Cinta	Habiburrahman El Shirazy	2	
3	Negeri 5 Menara	Ahmad Fuadi	1	
4	Bumi Manusia	Pramoedya Ananta Toer	2	
5	Cantik Itu Luka	Eka Kurniawan	5	

Kembali ke Menu Peminjaman

ID Buku:

ID Buku (pilih dari tabel)

Judul Buku:

Judul Buku (pilih dari tabel)

Nama Peminjam:

Farel Faiza

NIM Peminjam:

202410370110446

Tanggal Peminjaman:

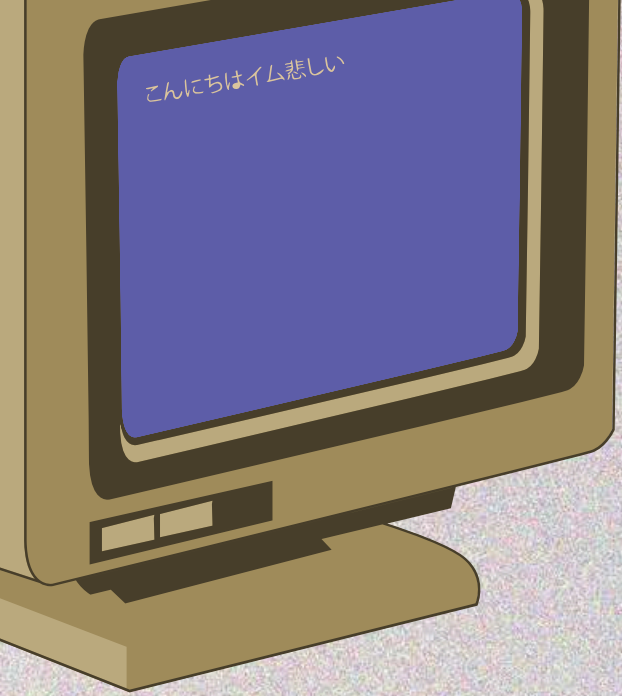
19/06/2025

Tanggal Pengembalian:

Tanggal Pengembalian

Ajukan Peminjaman





# FEATURE DEMO

## Returning Book


In this dashboard, students can now return a book by filling out the:

- Book ID

After filling out this return book form, the dashboard will automatically change to “Borrowed Book History”, and the system would update the book detail as “Returned”.

Student Dashboard - myUMM Library

F Farel

  
myUMM Library

Profile

Borrow Book

Return Book

Search Book

### Pengembalian Buku

Daftar Buku yang Sedang Dipinjam:

ID Peminjaman	ID Buku	Judul Buku	Tanggal Peminjaman	Tanggal Pengembalian	Status Peminjaman
Saat ini tidak ada buku yang sedang Anda pinjam.					

ID Peminjaman/Buku:

Masukkan ID Peminjaman atau ID Buku

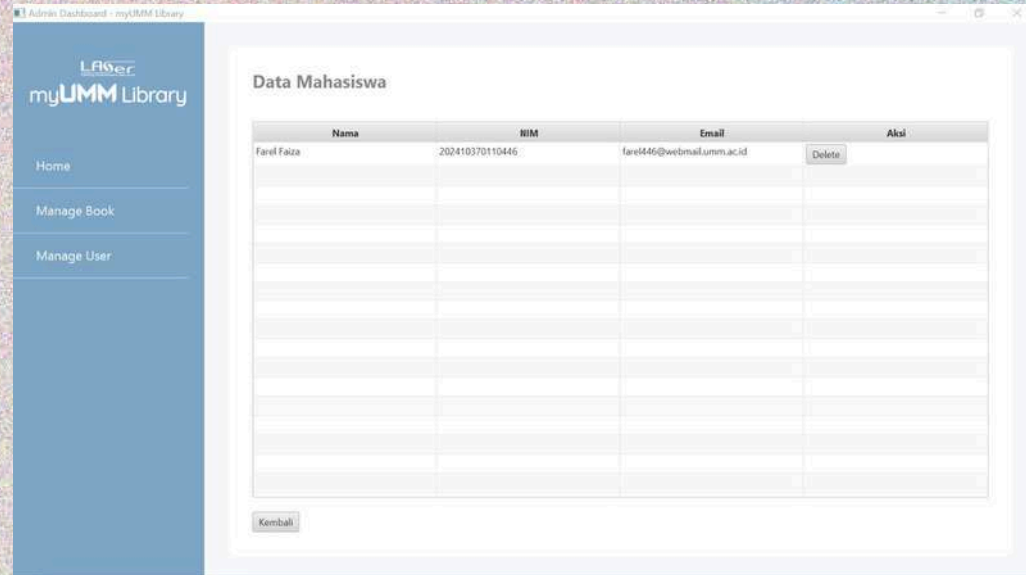
Proses Pengembalian

Kembali ke Profile



# FEATURE DEMO

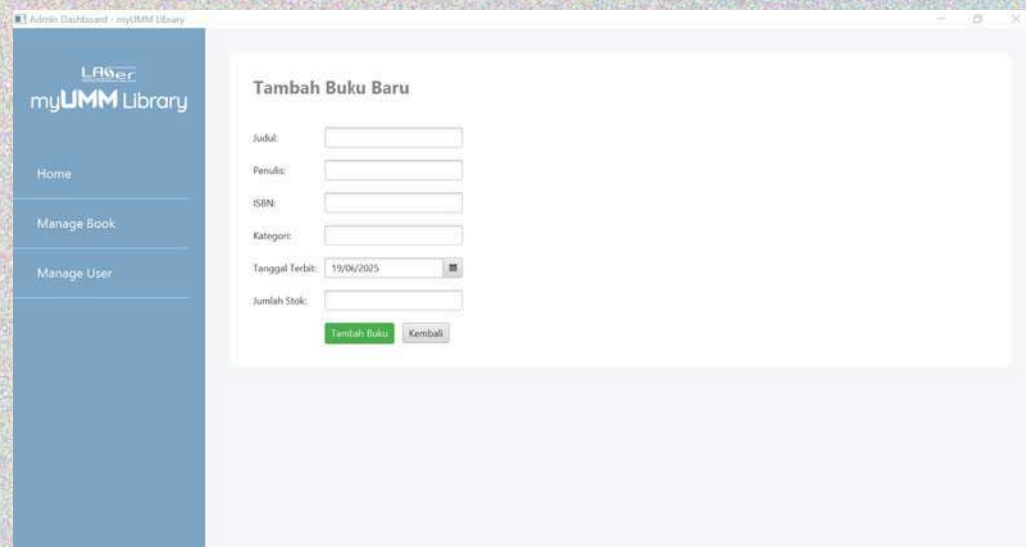
## CRUD



**Admin** can input:

- Student's name
- Student ID
- Email

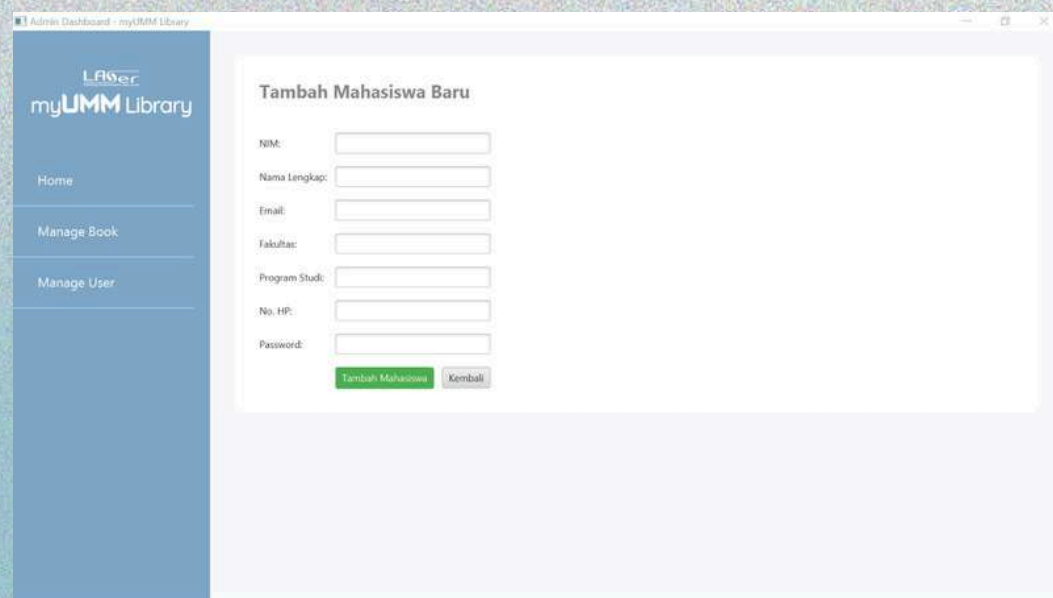
Data is then stored into the system database.



**Admin** can add a new book and input:

- Book title
- Author
- ISBN
- Category
- Date published
- Stock available

New book data is added to the system and Admin can either update the book detail.



**Admin** can add a new student and input:

- Student ID
- Student's fullname
- Student's email
- Faculty
- Study program
- Student's phone number
- Student's default password (can be changed by the student in their profile)

New student data is added to the system and Admin can either update the student detail.



**THANK YOU** 