

Quick Start Guide

Initialization

The initialization procedures only need to run once. If the system has already been initialized, these steps can be skipped.

1. Navigate to the “backend” directory.
2. Create an .env file in the backend directory containing the database credentials listed below. Replace “root” with the database user, and replace “your_password” with the password for that user.

DB_HOST=localhost

DB_USER=root

DB_PASSWORD=your_password

DB_NAME=library

3. Place the library data CSV files in the backend directory.
4. Initialize the database by running the Python file init_db.py.
5. Progress to the next heading, **Running the System**.

Running the System

1. Open two terminal windows.
2. In the first terminal window, navigate to the “backend” directory and run the command “uvicorn main:app --reload --port 8000”. This starts up the backend server.

3. In the second terminal window, navigate to the “frontend” directory and run the command “npm run dev”. This starts up the frontend. Both the backend and frontend need to be running for the program to function.
4. Open a web browser and navigate to the frontend URL. Typically, this should be “http://localhost:5173”. You should be able to see the app in the browser now.

Features

The application is divided into four pages.

- On the **Search Books** page, you can search for books using their attributes, see whether they’re available, and see who’s currently borrowing them.
- On the **Borrowers** page, you can register new borrowers. The system automatically verifies if their SSN is unique.
- On the **Loans** page, you can check out books. The system imposes a limit of 3 books per borrower at once, and a borrower can only check out books if they have no unpaid fines. You can also search for books to check them in.
- On the **Fines** page, you can view the fines assigned to different borrowers and clear them if the borrowers pay them.