MyULibrary

Overview

MyULibrary is a web application designed to manage a library system, providing interfaces for both students and librarians. The application allows users to view a catalog of books, add books to their backpack, and manage user accounts.

Features

- Book Catalog: Displays a list of available books, with search functionality.
- User Backpack: Allows users to view and manage their checked-out books.
- User Management: Manage user accounts, including adding and deleting users.

Technologies Used

- Frontend: React, Material-UI
- Backend: Node.js (Express)
- Database: PostgreSQL (hosted on neon.tech)

Getting Started

Prerequisites

- React.js
- Node.js
- npm

Installation

1. Clone the repository

```
git clone https://github.com/yourusername/myulibrary.git
cd myulibrary
```

```
git clone https://github.com/yourusername/myulibraryfront4.git
cd myulibraryfront4
```

2. Install the dependencies:

```
npm install
```

3. Set up environment variables for the backend server to connect to the PostgreSQL database hosted on neon.tech.

Running the Application

1. Start the backend server:

```
npm run server
```

2. Start the frontend development server:

```
npm start
```

3. Open your browser and navigate to `http://35.208.117.44/` to access the application. (Note: Currently, the landing page is not implemented, and you will directly access the book catalog and other functionalities.)

Application Structure

- `src/components/`: Contains all the React components
  - `BookCatalog.tsx`: Displays the list of books with search functionality
  - `UserBackpack.tsx`: Displays the list of books checked out by the user
  - `UserList.tsx`: Manages user accounts
- `src/interfaces/`: Contains TypeScript interfaces for type checking
- `src/App.tsx`: Main application component with routing

- `server.js`: Backend server setup

Future Improvements

- Implement a landing page that allows users to choose between student and librarian interfaces.
- Enhance the user interface with more features and better styling.
- Implement authentication for students and librarians.
- Add more functionalities for librarians, such as adding new books and managing book checkouts.
- Improve error handling and form validations.

Contributing

Contributions are welcome! Please fork the repository and submit a pull request with your changes.

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