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Project Title: Virtual Library Portal: An E-Library Management System

Topic Selection
Computer Science Relevance: Information Systems & Web Development
Focus: Developing a digital library system where admins can list books, and users can reserve, like, return, and comment on them.

Introduction
In a world where technology is constantly changing how we access information, libraries are no exception. Many libraries find it hard to provide an easy-to-use and interactive online experience for users. While the internet provides a lot of educational content, it is difficult for users to easily find what they need because of the large amount of information. Traditional online library systems don't always provide a smooth and easy experience. This project aims to create a straightforward and user-friendly digital library platform using web technologies. The platform will help users easily find, reserve, and engage with books, while also helping admins manage the collection in an effective manner, improving the overall experience for everyone.

Objectives

1. To allow library admins to easily add, update, and manage digital books in the system.
2. To enable users to browse, reserve, like, return and comment on books.
3. To make the admin's job easier by organizing all the information on books and user activities in one place.
4. To improve the interaction between the library's digital resources and people.

Methodology
1. Front-End Development: Utilize HTML, CSS, and JavaScript (React.js) for the UI/UX design.
2. Back-End Development: Use Node.js for back-end logic and PostgreSQL for database management.
3. API Integration: Use APIs like Pixels API to get random pictures which would be used for users' profile pictures.

Expected Outcomes

1. A successful development of a simple and easy-to-use digital library where admins can effectively manage books.

2. A secure and easy-to-navigate platform for users to reserve, like, comment on books.
3. A search tool that helps users easily find books they need quickly.
4. An automated reminder system that lets users know to return books within 3 weeks.

Timeline

1. Weeks 1-2: Literature Review and Research
2. Weeks 3-5: Front-End Development
3. Weeks 6-8: Back-End Development
4. Weeks 9-10: API Integration and Testing
5. Weeks 11-12: Final Testing and Deployment