**Project Overview**

**ShareMyBook**

1. **Introduction:**

Books are essential resources for students, but purchasing new textbooks each semester can be expensive. Additionally, many students have old books that they no longer need, which often go unused. A Cloud-Based Peer-to-Peer (P2P) Book Sharing System aims to solve this problem by providing a digital platform where students can lend, rent, or sell books to others within their institution or community.

This system will be hosted on the cloud, allowing users to list their books, search for available books, and communicate with other users securely. The platform will include features such as book listings with images, chat functionality, location-based search, and user verification. By leveraging cloud storage and databases, the system ensures secure, real-time access to book listings and transactions.

This initiative promotes sustainable book usage, reduces educational expenses, and fosters a collaborative learning environment among students. The platform can be expanded to support e-books, book exchanges, and donation drives for underprivileged students.

1. **Objective:**

* Develop a cloud-hosted platform for students to list, borrow, sell, or exchange books within their community.
* Implement secure authentication, real-time book availability tracking, and location-based filtering for efficient book discovery.
* Integrate a chat system for seamless communication and enable optional payment processing for book transactions.

1. **Applications:**

* Universities & Colleges: Students can find affordable books from their peers.
* Public Libraries: Facilitates book lending outside the library system.
* Community Groups: Local communities can share resources more efficiently.
* NGOs & Book Donation Initiatives: Helps distribute books to underprivileged students.
* Book Clubs: Enables easy exchange of books among members.

1. **Tools and Technology requirements:**

* Cloud Platform: AWS
* Frontend Development: React.js, HTML, CSS, JavaSript, BootStrap.
* Backend Development: Node.js with Express.js,Firebase.
* Database: Firebase Firestore, MongoDB, or MySQL for storing orders and menu details.
* Payment Integration: Razorpay.

**REFERENCES:**

* 1. Google Speech-to-Text API: https://cloud.google.com/speech-to-text
  2. Web Accessibility Guidelines: <https://www.w3.org/WAI/standards-guidelines/wcag/>
  3. Inclusive Web Design Principles: <https://www.a11yproject.com/>

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