Privacy-Focused Notes App with Encryption

Abstract

This project implements a secure offline-first note-taking application where all notes are encrypted before being saved. The aim is to provide privacy to users so that even if their storage is accessed, the notes remain unreadable without the password.

Tools Used

- React.js for UI
- Tailwind CSS for styling
- IndexedDB (idb library) for local storage
- CryptoJS for AES encryption/decryption

Steps Involved

1. Set up React project with Tailwind.
2. Built CRUD functionality for notes.
3. Integrated IndexedDB to store notes locally in browser.
4. Used CryptoJS AES encryption to secure notes with a user password.
5. Added search, pin, and archive features.
6. Designed a responsive, mobile-friendly UI.

Conclusion

The Privacy-Focused Notes App provides a simple and secure way to manage personal notes. All data remains on the client side and encrypted, ensuring user privacy. This project demonstrates how client-side encryption and offline storage can enhance security for everyday tools. Future enhancements could include optional cloud sync with secure authentication.