PROJECT REPORT : HABIT TRACKER

Introduction

The Habit Tracker is a lightweight web application designed to help users build and maintain daily habits through a simple interactive interface. It allows users to add custom habits, mark daily check-ins and visualize progress through streaks and charts. The application stores user data locally using IndexedDB ensuring offline access

Abstract

The goal of this project is to increase individual productivity by giving users the ability to continuously track their behaviors. A visual progress chart, habit streaks, and check-in reminders are just a few of the tools that promote responsibility and constructive behavior reinforcement. Constructed with the React framework and designed with Tailwind CSS, the project also shows how to use IndexedDB for browser-based local storage in an efficient manner.

Tools Used

- **Frontend:** React.js
- **Styling:** Tailwind CSS
- **Charting Library:** Chart.js
- **Storage:** IndexedDB via idb library
- **Development Tools:** npm, VS Code, GitHub

Steps Involved in Building the Project

1. **Project Setup**
   - Initialized React project using Vite
   - Installed and configured Tailwind CSS
2. **Component Design**
   - Created components: `AddHabit`, `HabitCard`, `HabitList`, `ProgressChart`
3. **Data Handling with IndexedDB**
   - Used `idb` library to store and retrieve habit data locally
   - Implemented streak tracking and check-in logic

4. **Interactive UI Features**
    - Added chart visualization of streaks
    - Implemented delete habit functionality
    - Added check-in reminder banner
    - Search filter for habits by name

5. **Final Touches**
    - Styled the UI for clean and responsive layout
    - Ensured persistent storage and bug-free check-in logic

Conclusion

The Habit Tracker is a useful and easy-to-use app that helps people build good habits. It lets users add their own habits, mark daily check-ins and see their progress through charts. All the data is saved in the browser, so it stays even after closing the app. This project shows how to build a simple and effective web app using React and other tools.