TaskMate Project Report

Abstract

TaskMate is a modern Progressive Web Application (PWA) designed to help users track, manage, and analyze their daily habits efficiently. It allows users to create habits, monitor progress, and visualize insights through charts and streak tracking. With responsive design, offline support, and IndexedDB storage, TaskMate ensures accessibility across devices while maintaining a smooth user experience.

Key Features

➤ Add, edit, and delete habits with categories and priorities.
➤ Track daily progress and mark habits as completed.
➤ Visualize weekly insights with bar charts.
➤ Streak tracking for habit consistency.
➤ Motivational quotes to encourage daily progress.
➤ Offline-first experience using IndexedDB & PWA support.
➤ Responsive UI with TailwindCSS for mobile and desktop.

Technology Stack

Frontend	React.js, Vite, TailwindCSS
State Management	React Hooks
Database	IndexedDB (via idb)
Charts	Recharts library
PWA	Workbox, Web Manifest
Version Control	Git & GitHub

Implementation

The application is structured using reusable React components with pages for Home, Analytics, Add Habit, Calendar, and Profile. The Navbar and Footer ensure consistent navigation, while IndexedDB is used for storing habit data locally to support offline usage. Charts provide data visualization for weekly progress, and PWA features enable installation on devices like native apps.

GitHub Repository

The complete source code is available at: https://github.com/Ansh7410/TaskMate

Conclusion

TaskMate demonstrates the use of modern web technologies to build a responsive, user-friendly, and offline-capable habit tracker. By combining data visualization, habit management, and PWA features, it provides users with an engaging tool to build consistency and achieve their goals.