

# Habit Tracker – Project Report

## Introduction

The **Habit Tracker** is a lightweight web-based Progressive Web App (PWA) created using only **HTML, CSS, and JavaScript**. It allows users to develop and maintain good habits through daily check-ins, streak tracking, and a visual calendar interface. This application promotes self-discipline and consistency while being intuitive and mobile-friendly.

## Abstract

The goal of this project is to build a visually appealing, responsive, and installable Habit Tracker app that runs offline and saves user data locally. It features a smooth dark/light theme switch, floating action buttons, streak bars, emoji habit icons, habit pinning, and toast notifications.

The app stores user data using **LocalStorage**, eliminating the need for a backend server. A calendar view helps users track progress over time, and the streak system boosts motivation to stay consistent.

## Tools Used

- **HTML5** – for content and structure
- **CSS3** – for styling and animations
- **JavaScript (ES6)** – for app logic and interaction
- **LocalStorage API** – to save user data locally
- **Manifest.json & Service Worker** – for PWA installability
- **VS Code** – as the code editor

## Steps Involved in Building the Project

- i. Designed the base layout using semantic HTML.

- ii. Styled responsive UI using modern CSS features like Flexbox, transitions, and variables.
- iii. Implemented habit add/edit/delete functionality in JavaScript.
- iv. Added daily check-ins and visual streak bars.
- v. Created a smooth toggle between dark and light modes.
- vi. Integrated emoji picker for habit icons and pin/favorite feature.
- vii. Developed a toast message system for feedback.
- viii. Integrated a calendar-style view for daily tracking
- ix. Used localStorage for offline saving of habits and check-ins.

**Added PWA features (manifest + service worker) for offline use and app installation.**

## **Conclusion**

This project successfully demonstrates how a full-featured, installable, and responsive app can be created using just **HTML, CSS, and JavaScript**. The Habit Tracker helps users stay accountable and makes habit-forming interactive and fun. Its clean design and offline capabilities make it suitable for daily use on any device—without relying on external databases or libraries.