Front-End UI/UX Mini Project Report

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1. Title Page

Project Title: Daily Habit Tracker

Submitted By:

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Course: UI/UX Design Fundamentals
Instructor Name: Mr.Dhiraj
Institution: Christ University, Kengeri Campus
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2. Abstract

This is the **Daily Habit Tracker**, a simple but powerful web tool I built to finally stop just *thinking* about habits and start tracking them. I used straight-up **HTML, CSS, and JavaScript**, sweetened with **Bootstrap and jQuery**, to make it happen. The goal was something clean and engaging. You can throw in any habit you want, mark off your progress over seven days, and immediately see your percentage, plus your current and best "streaks." Best of all, there's no clunky server; everything is saved **right in your browser**, so your progress is always waiting for you.

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3. Objectives

- Making a web app that's genuinely **fun to interact with** every day.
- Giving users the power to **add, rename, or dump a habit** easily.
- Creating a clear, visual **7-day tracker grid** so you can see your week at a glance.
- Implementing a clever little **Streak Counter**—because seeing your "Best" streak is a massive motivator.
- Using **progress bars and percentages** to give instant feedback on how you're actually doing.
- Ensuring the progress sticks around by saving everything with **local storage**.

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4. Scope of the Project

This project was a pure **front-end sprint**. I didn't mess with any server-side code. It lives as one simple page (index.html) but uses **JavaScript, Bootstrap, and jQuery** to bring it to life. The focus was entirely on getting the core loop right: **managing habits, checking off days, and correctly calculating streaks**. And, of course, giving users the **"Reset All" button**—that essential fresh start option.

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5. Tools & Technologies

Tool/Technology	Purpose
HTML	Structure & content (e.g., input field, buttons, habit cards)
CSS	Styling and visual design (pastel colors, rounded containers)
JavaScript	Core application logic, event handling, data manipulation
Bootstrap	Responsive design, utility classes, and initial styling structure
jQuery	DOM manipulation and simplifying JavaScript interactions

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6. HTML Structure Overview

- **Single-Page Layout:** The entire application resides within a single index.html file.
- **Main Container:** A central, rounded, light-coloured container holds all application elements.
- **Input Area:** Includes a text input field ("Write a new habit...") and an Add button.
- **Habit Cards:** Dynamically generated sections for each habit, containing:
  - The habit name (e.g., "Exercise / Workout").
  - A grid of seven checkboxes/visual indicators for daily tracking.
  - A progress bar displaying the percentage.
  - Streak counters for Current and Best streaks.
  - Edit (pencil icon) and Delete (X icon) buttons.
- **Reset Button:** A Reset All button at the bottom for clearing data.

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7. CSS Styling Strategy

- **Clean and Minimalist:** Uses a white or off-white background with a light pastel color palette (green, pink) for buttons and accents.
- **Layout:** Utilizes a centred, fixed-width main container for a focused look.
- **Custom Habit Cards:** Styled with rounded corners and a subtle box shadow for clear separation.
- **Visual Indicators:** Checkboxes are styled as small square icons (green tick when completed, dashed outline when not) for an aesthetically pleasing look.
- **Progress Bars:** Custom-styled to show progress visually, typically in a shade of green.
- **Responsive Design:** Implemented using **Bootstrap** to ensure the layout remains clean and functional, regardless of screen size.

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8. Key Features

Feature	Description
Add/Edit Habits	Users can input custom habit names and modify them (pencil icon).
Daily Tracker Grid	Seven distinct, clickable indicators (checkboxes) per habit to mark daily completion.
Streak Counter	Tracks and displays the **Current** consecutive days and the **Best** historical streak (e.g., *Current: 0* and *Best: 3*).
Progress Indicators	A percentage and corresponding progress bar show the completion rate (e.g., **57%**).
Clear/Reset Options	The **Reset All** button allows users to wipe all stored habit data and reset the tracker to its initial state.
Local Storage	Data is saved directly in the browser, ensuring habits and progress are remembered when the user revisits the page.

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9. Challenges Faced & Solutions

Challenge	Solution
Managing data persistence without a server.	**Local Storage API** was used to store and retrieve all habit names, progress, and streak counts locally in the user's browser.
Calculating the current and best consecutive **streak**.	Implemented a JavaScript function that iterates over the seven daily checkmarks to accurately calculate the *Current* streak and compare it against the *Best* historical streak.
Dynamically adding and updating habit cards in the DOM.	Leveraged **jQuery** for efficient and clean manipulation of the Document Object Model (DOM) to insert, update, and remove habit card HTML elements.

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10. Outcome

The Daily Habit Tracker is a fully functional, highly interactive, and visually appealing single-page application. It meets all the specified requirements by providing robust habit management, clear progress visualization, and reliable local data storage. The integration of JavaScript/jQuery was successful in creating a dynamic user experience, transforming simple HTML and CSS into a practical productivity tool.

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11. Future Enhancements

- Expand the Daily Tracker Grid from 7 days to a **30-day (monthly) view**.
- Add a feature to **reorder or categorize habits**.
- Implement more robust **user feedback** (e.g., celebratory animations for hitting a new "Best" streak).
- Add options to **export or backup** habit data.

- Integrate a cloud-based **backend** (e.g., Firebase) to allow for multi-device synchronization.

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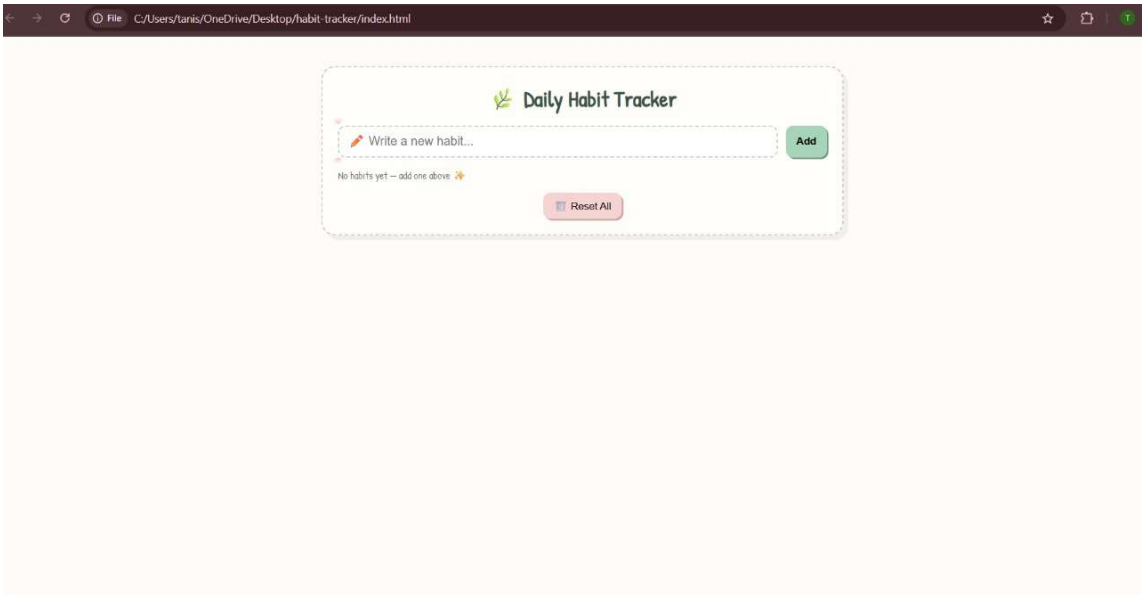
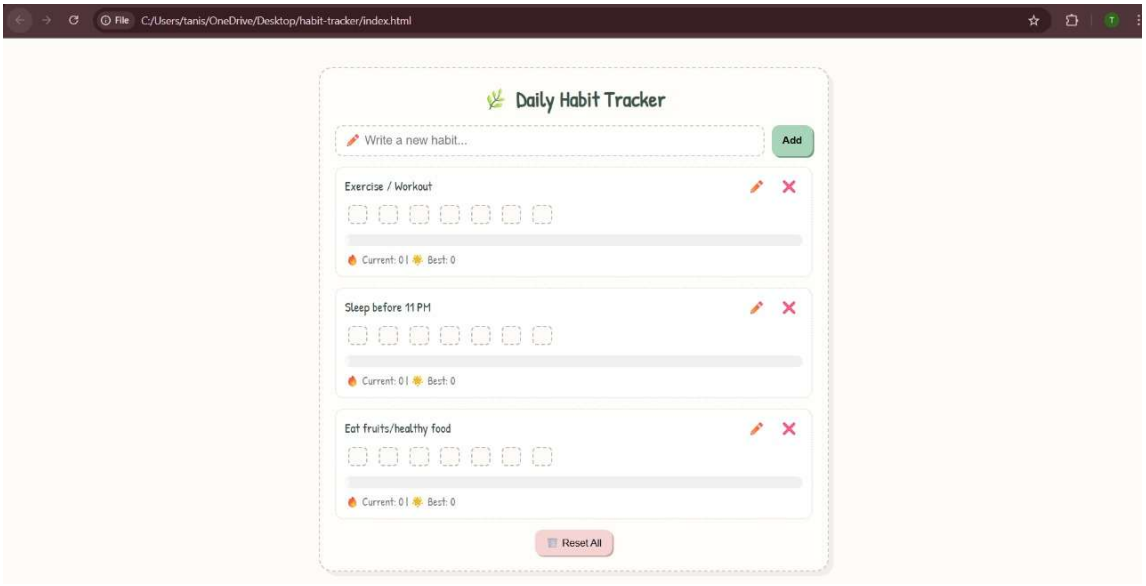
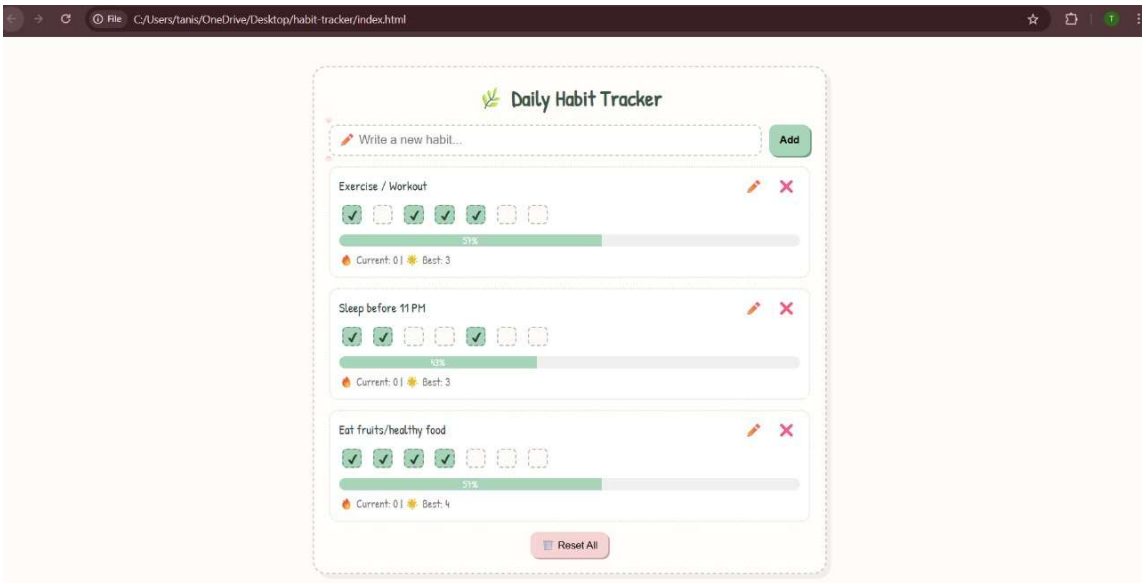
12. Screenshots of Final Output







13. Conclusion

This project serves as a strong demonstration of building an effective, feature-rich utility using standard **front-end technologies** (HTML, CSS, JavaScript, and supporting libraries). It showcases proficiency in **DOM manipulation, responsive design, and local data management**. The resulting **Daily Habit Tracker** provides a solid, practical foundation that can be easily expanded into a more complex application in the future.

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14. References

- L&T LMS: https://learn.lntedutech.com/Landing/MyCourse
- W3Schools HTML & CSS Documentation – https://www.w3schools.com
- MDN Web Docs – https://developer.mozilla.org