## **Unified Mentor Internship Program**



# INTERNSHIP REPORT On

## **Web Development**

**Project Name: To-Do List App** 

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Domain: Full Stack Web Development

#### <u>Acknowledgement</u>

I would like to express my sincere gratitude to Unified Mentor for providing me with the opportunity to intern and work on a meaningful project. A special thanks to my mentor for their constant guidance, support, and motivation during the internship. This project has been a significant step in my learning journey.

Unified Mentor is a tech-focused organization that provides mentorship and hands-on experience through real-world projects. Their mission is to bridge the gap between theoretical knowledge and practical industry requirements by guiding students through internships and live projects.

# **Table of Contents:**

- 1. Introduction
- 2. Objective
- 3. Tools and Technologies Used
- 4. Project Description
- 5. Features Implemented
- 6. User Interface Design
- 7. Challenges Faced
- 8. Learning Outcomes
- 9. Conclusion
- 10. Future Enhancements

## 1. Introduction

In today's fast-paced digital world, managing tasks effectively is essential for maintaining productivity and achieving personal and professional goals. The **To-Do List App** is a lightweight yet functional web-based application developed to assist users in organizing their daily responsibilities. Whether it's remembering assignments, shopping lists, or project deadlines, a to-do list app provides users with a clear, manageable overview of their pending tasks.

This application was created using core web development technologies—HTML, CSS, and JavaScript—without the need for any external frameworks or libraries. It incorporates essential task management features such as adding, editing, deleting, and completing tasks. Additionally, it includes enhancements like dark mode for better visual comfort during nighttime use, and localStorage support to ensure that tasks persist across browser sessions without needing a backend server or database.

#### 2. Objective

The core objectives of developing this application are:

- To design a visually appealing and functional to-do list app using HTML, CSS, and JavaScript.
- To store user data using browser-based localStorage.
- To implement essential features like adding, editing, deleting, and completing tasks.
- To improve accessibility with a dark mode feature.
- To gain practical experience in front-end development.

#### 3. Tools and Technologies Used

Technology Purpose

HTML5 Structure of the web page

CSS3 Styling and layout

JavaScript (ES6) Interactivity and data manipulation

**LocalStorage** Persistent client-side data storage

Visual Studio Code Code editor

GitHub / Netlify (optional) Version control and live deployment

#### 4. Project Description

This application allows users to manage their tasks in a structured way. Tasks can be added via an input form, listed in an interactive interface, and edited or removed with a click. A dark mode toggle is provided to improve user experience during nighttime or extended use.

#### Files Used:

- index.html: HTML structure
- styles.css: Visual design and dark/light theme styles
- app.js: Task logic, DOM interaction, and localStorage handling

#### Flow:

User enters a task → Task appears in list → User can complete,
 edit, or delete it → Data is saved in localStorage.

## 5. Features Implemented

- Add New Task: Users can add tasks via a form.
- <u>Édit Task</u>: Each task has an edit option.
- X Delete Task: Remove individual tasks with a button.
- Mark Complete: Clicking the checkbox or text toggles completion.
- Clear All: Deletes all tasks at once.
- Dark Mode: User can switch between light and dark themes.
- **LocalStorage Support**: Saves tasks and theme settings even after closing the browser.

#### 6. User Interface Design

The UI is designed using **Flexbox** to be centered and responsive. Key design considerations:

- Light mode: yellow-green theme with white backgrounds.
- Dark mode: warm brown-orange tones for comfort.
- Buttons use hover effects and icons  $(\checkmark, \checkmark, \times)$  for clarity.
- Responsive layout works across devices including mobile phones.

The toggle button for dark mode is placed at the top-right for easy access.

#### 7. Challenges Faced

- Implementing dark mode while preserving the readability of all elements.
- Maintaining synchronization between the UI and the localStorage data.
- Preventing submission of empty or duplicate tasks.
- Styling responsiveness for different screen sizes (mobile vs desktop).
- Ensuring all changes (edit/delete/complete) updated both DOM and storage correctly.

#### 8. Learning Outcomes

Working on this project helped strengthen the following skills:

- **HTML/CSS Structuring**: Better use of semantic tags and Flexbox layout.
- JavaScript Mastery: Event handling, DOM manipulation, conditional logic.
- Persistence Mechanism: Learned to use localStorage for saving data.
- VI/UX: Building responsive and visually balanced layouts.
- Debugging Skills: Troubleshooting logical and styling issues across browsers.

#### 9. Conclusion

The **To-Do List App** successfully delivers a useful, user-friendly experience for managing tasks. It is simple yet powerful with its core features and clean design. The localStorage support ensures persistent data while the dark mode enhances accessibility.

The project has not only fulfilled its initial objectives but also laid the foundation for more advanced productivity tools.

#### **10. Future Enhancements**

Future improvements may include:

- Task reminders with time/date
- Category-based task grouping
- Stack reordering using drag-and-drop
- Cloud sync and user login system
- Push notifications
- Task statistics and dashboard view