Project Report

Project Title: To-Do List Web App

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Project Description:

This project is a simple, interactive To-Do List web application built using HTML, CSS, and JavaScript.
It allows users to add, mark as complete, and delete tasks, making it a useful tool for organizing daily activities.
The application is designed with an intuitive interface to ensure ease of use and accessibility.

Objectives:

- Provide users with an easy way to create, track, and manage tasks.
- Implement a user-friendly interface with basic functionalities of a to-do list.
- Ensure a responsive layout that works well on various devices.

Project Components:

- HTML: Provides the structure for task input, task list display, and control buttons.
- CSS: Styles the to-do list interface, enhancing the visual appeal and layout responsiveness.
- JavaScript: Handles task addition, deletion, marking as complete, and updating the task list dynamically.

Tools & Technologies:

- HTML5: Used to structure the input fields, task list container, and control buttons.
- CSS3: Provides styling for layout, colors, and responsive design.
- JavaScript (ES6): Handles the app's core logic including task management and UI updates.

Features Implemented:

- Task Creation: Allows users to add tasks to the list.
- Task Completion: Enables marking tasks as complete by striking them through.
- Task Deletion: Allows users to remove tasks individually.
- Responsive Design: Adjusts layout for usability across desktop and mobile devices.

Project Structure:

- index.html: Contains HTML code for task input, list display, and control buttons.

- style.css: Includes CSS code for layout styling and responsive design.
- script.js: Contains JavaScript code for handling task operations and UI updates.

Code Explanation:

1. HTML:

Structured the page with an input section for adding tasks, a list container for displaying tasks, and
buttons for adding, deleting, and managing tasks.

2. CSS:

Styled the layout with modern colors and fonts, using Flexbox for a responsive grid layout. Designed buttons and list items for optimal readability and interaction.

3. JavaScript:

Handled task creation, marking completion, and deletion through event listeners. Updated the
task list dynamically based on user interactions.

Challenges and Solutions:

- Challenge: Implementing persistent task storage across sessions.
    - Solution: Used local storage to retain tasks even after page reloads.
- Challenge: Ensuring intuitive design for task management.
    - Solution: Used clear, easy-to-understand icons and buttons for each functionality.

Results:

The To-Do List web app performs all intended functionalities smoothly. It is responsive, user-friendly, and allows users to effectively manage their tasks with basic add, complete, and delete options.

Future Enhancements:

- Task Categories: Allow users to categorize tasks for better organization.
- Due Dates: Add functionality to set due dates and reminders for tasks.
- Dark Mode: Provide an option for dark mode for a better user experience.

Conclusion:

This To-Do List web app is a simple yet effective tool for task management. Built using HTML, CSS, and JavaScript,
it provides users with essential functionalities in a responsive, easy-to-use interface, demonstrating key web development skills.