

# Simple Dynamic Task Manager

## Introduction

The Simple Dynamic Task Manager is a web-based application designed to help users manage their tasks effectively. It provides a simple yet powerful interface for adding, updating, and deleting tasks on the fly, offering a convenient solution for organizing daily activities and increasing productivity.

## Purpose

The purpose of this project is to create a user-friendly task management tool that allows individuals to easily keep track of their tasks without the need for complex software or extensive setup. By providing a straightforward interface and dynamic functionality, the task manager aims to streamline the task management process and improve overall productivity.

## Need

In today's fast-paced world, staying organised and managing tasks efficiently is essential for success. Many existing task management tools are either too complex for casual users or lack the flexibility to adapt to changing needs. The Simple Dynamic Task Manager addresses this need by offering a lightweight solution that combines simplicity with dynamic features, making it suitable for a wide range of users.

## Features

- **Task Creation:** Users can quickly add new tasks by entering a title and clicking the "Add Task" button.
- **Task Listing:** Displays a list of all tasks, allowing users to easily view and manage their tasks.
- **Task Update:** Users can update existing tasks by clicking on them and modifying the task details.
- **Task Deletion:** Tasks can be deleted individually by clicking on the delete button next to each task.
- **Task Completion:** Tasks can be marked as completed by clicking on them, visually indicating their status.

## Coding Details

The Simple Dynamic Task Manager is built using HTML, CSS, JavaScript for the frontend, and Node.js with Express.js for the backend. The frontend handles user interactions and dynamically updates the UI based on user actions, while the backend manages the storage and retrieval of tasks using in-memory data storage (array).

The frontend consists of three main files:

- `index.html`: Contains the structure of the web page, including the task input form and task list.
- `styles.css`: Defines the styles for the web page, including layout, colours, and typography.
- `script.js`: Implements the client-side logic for adding, updating, and deleting tasks, as well as fetching tasks from the server and updating the UI accordingly.

The backend is implemented in `server.js` and utilises Express.js for routing and handling HTTP requests. It provides endpoints for adding, updating, deleting, and fetching tasks, as well as serves the static frontend files.

## Conclusion

The Simple Dynamic Task Manager offers a straightforward and efficient solution for managing tasks, catering to the needs of users who value simplicity and flexibility in their task management tools. With its intuitive interface and dynamic functionality, the task manager aims to empower users to stay organised and productive in their daily lives.