Job Simulation: Task Manager with Live Status Dashboard

Project Title:

Implementation of a Task Manager

Role:

Front-End Development Intern

Technology Stack:

HTML, CSS, JavaScript

Objective

To design and implement a live task manager that:

- Loads tasks asynchronously
- Displays real-time task progress
- Allows users to control task execution and delayed notifications

This project introduces key JavaScript timing functions (setTimeout, setInterval, clearInterval) and asynchronous handling using async/await.

Task Overview

As part of your hands-on learning experience, you are required to build an interactive dashboard that simulates live task progress updates. The system should:

- Load task data asynchronously
- Update each task's progress in real-time
- Enable users to start and stop progress
- Trigger delayed notifications using setTimeout

Each task must be presented with:

- A task name
- A progress percentage
- A current status

The dashboard UI should be visually styled using CSS to enhance usability and responsiveness.

Task Requirements

1. Functionality

- Use async/await to simulate loading task data with a delay (Promise + setTimeout)
- Display a **"Loading…"** message while tasks are being fetched
- Use setInterval() to increase each task's progress by **10% per second**
- Use clearInterval() to stop progress updates on button click
- Use setTimeout() to display a **delayed notification**
- Ensure that:
    - Progress stops at **100%**
    - Status updates to **"Completed"** upon completion

2. User Interface (UI)

- Build a responsive and visually appealing layout using **HTML and CSS**
- Include a **header** titled **"Async Task Manager"**
- Provide control buttons:
    - **Load Tasks**
    - **Start Progress**
    - **Stop Progress**

    - **Delay Notification**
- Show each task in a **card or row format** displaying:
    - Task name
    - Status (Pending, In Progress, Completed)
    - A visual progress bar
- Use background color indicators:
    - Green for **Completed**
    - Yellow for **In Progress**
- Display notification messages in a **separate panel**

3. Code Structure

- Use document.getElementById() or querySelector() for DOM interaction
- Store setInterval() IDs in variables for precise control via clearInterval()
- Write **modular functions** to handle:
    - Task loading
    - Progress updates
    - Stopping updates
    - Displaying delayed messages
- Ensure task progress is capped at 100% to prevent overflows or errors

Bonus (Optional)

- Disable the **Start Progress** button while progress is active
- Assign each task a **different delay duration**
- Add **audio or animations** on task completion
- Implement a **Light/Dark Mode Toggle** using a CSS class switch

Deliverables

Submit a project folder containing the following files:

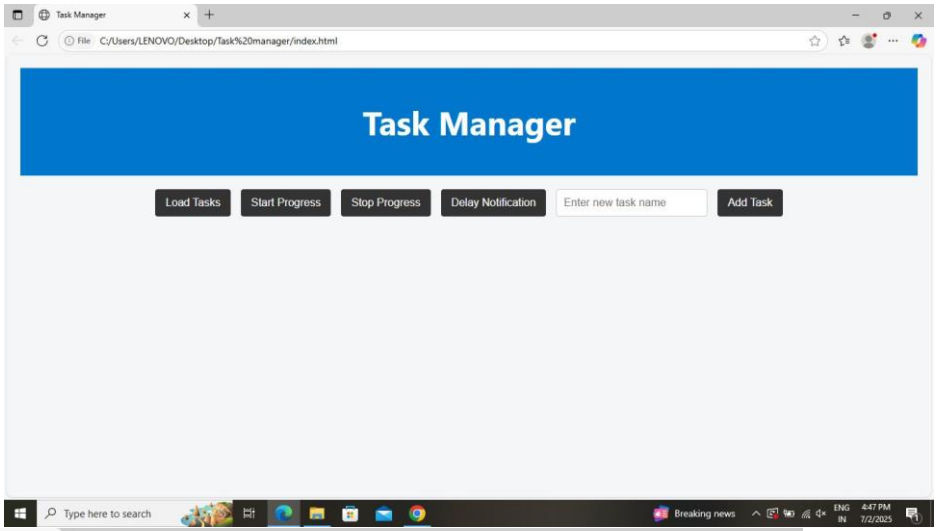
- index.html – HTML layout and structure of the task dashboard
- style.css – Styling rules for design, status indicators, and responsiveness
- script.js – JavaScript logic for:
    - Asynchronous loading
    - Real-time progress control
    - Timing-based interactions

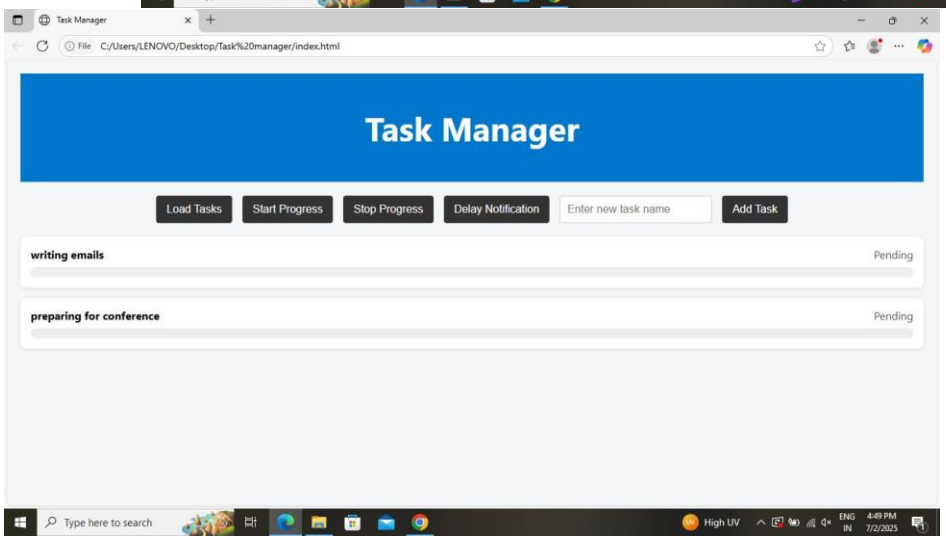
Note: Include a 2–3 line comment in script.js explaining how async loading and real-time updates are handled using async/await, setInterval(), and setTimeout().

Learning Outcomes

By completing this simulation, you will gain hands-on experience with:

- Handling asynchronous data fetching using async/await
- Implementing real-time logic using setInterval() and clearInterval()
- Managing delayed events via setTimeout()
- Building and styling dynamic user interfaces with HTML/CSS/JS
- Structuring scalable and interactive dashboards with clean JavaScript


Task Manager
File C:/Users/LENOVO/Desktop/Task%20manager/index.html
Task Manager
Load Tasks
Start Progress
Stop Progress
Delay Notification
Enter new task name
Add Task
Type here to search
Breaking news
ENG
IN
4:47 PM
7/2/2025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Task Manager
Load Tasks
Start Progress
Stop Progress
Delay Notification
Enter new task name
Add Task
writing emails
Pending
preparing for conference
Pending
Type here to search
High UV
ENG
IN
4:49 PM
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