**Project Title: Implementation of a Live Digital Clock**

**Role:** Front-End Development Intern

**Technology Stack:** HTML, CSS, JavaScript

**Objective**

Design and develop a real-time digital wall clock using JavaScript. This feature will be integrated into the company’s internal homepage as a live display element. The project will provide hands-on experience with JavaScript’s Date object and periodic execution using setInterval().

**Task Overview**

As part of this simulation, you are required to build a digital clock that displays the **current system time in HH:MM:SS format**, updating every second. The clock should be clearly visible and user-friendly.

**Task Requirements**

**1. Functionality**

* Display current system time in HH:MM:SS format
* Use JavaScript's Date object to retrieve the system time
* Use setInterval() to refresh the time display every second

**2. User Interface (UI)**

* Ensure a clean and readable layout using HTML and CSS
* Align the clock content properly and provide adequate spacing

**3. Code Structure**

* Use document.getElementById() or similar DOM manipulation methods to display time
* Pad single-digit hours, minutes, and seconds with a leading zero (09:05:01)

**Bonus (Optional Enhancements)**

* Display time in **12-hour format** with **AM/PM**
* Include a dynamic greeting based on the current time:
  + **“Good Morning”** (6:00 AM – 11:59 AM)
  + **“Good Afternoon”** (12:00 PM – 5:59 PM)
  + **“Good Evening”** (6:00 PM – 8:59 PM)
  + **“Good Night”** (9:00 PM – 5:59 AM)

**Deliverables**

Submit a complete project folder containing the following files:

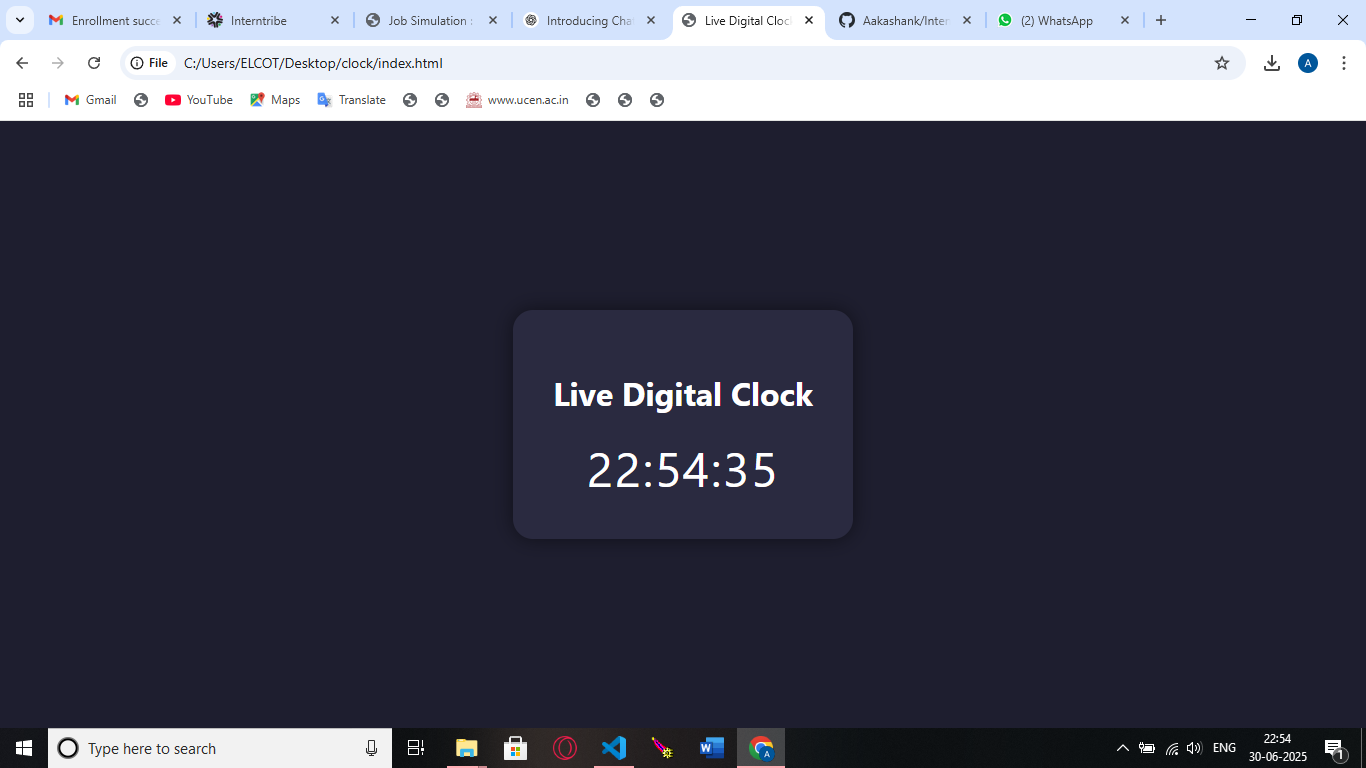
* index.html – Contains the HTML markup for the digital clock
* style.css – Includes CSS rules for styling and layout
* script.js – JavaScript file containing the time update logic  
  *Include a brief comment explaining how the clock update mechanism works*

**Learning Outcomes**

By completing this project, you will gain practical experience in:

* Using the JavaScript Date() object to retrieve and work with system time
* Applying setInterval() to perform real-time updates
* Formatting numerical strings for consistent display
* Dynamically updating HTML content via JavaScript DOM methods

**Project:**

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