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:

    o **"Good Morning"** (6:00 AM – 11:59 AM)

    o **"Good Afternoon"** (12:00 PM – 5:59 PM)

    o **"Good Evening"** (6:00 PM – 8:59 PM)

    o **"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: