

# Internship Assignment: Date & Time Calculator

## Objective

Assess the candidate's proficiency in **JavaScript date handling**, **Intl API**, and UI/UX development by creating an interactive date calculator that calculates age, date differences, and future dates.

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## Assignment Overview

Create a **web-based date and time calculator** that allows users to:

1. **Select a Date and Time** to calculate age or the difference between two dates.
2. **View the difference** between two selected dates in **years, months, and days**.
3. **Calculate future or past dates** (e.g., what date will it be **1000 days from today**).
4. **Display the current date and time** at the top using **JavaScript's Intl.DateTimeFormat API**.

The UI should be interactive and **user-friendly**, utilizing **smooth animations** for a modern experience.

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## Requirements

### 1. Display Current Date & Time

- The **current date and time** should always be displayed at the top.
- Use **Intl.DateTimeFormat** to format it properly based on the user's locale.

### 2. Age & Date Difference Calculator

- Allow the user to **select two dates**.
- Display the difference in **years, months, and days**.
- If only one date is selected, calculate the difference **from today**.

### 3. Future & Past Date Calculator

- Allow users to enter a **number of days** (positive or negative).
- Show the **calculated future or past date**.
- Use **Intl.DateTimeFormat** for proper localization.

## 4. UI/UX Enhancements

- The layout should be **clean and responsive**.
  - Use **smooth transitions** when displaying results.
  - Implement **form validation** to prevent invalid inputs.
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## Technology Stack

- **HTML**: Page structure.
  - **CSS**: Grid/Flex box for layout, animations for interactions.
  - **JavaScript**:
    - Handle date selection and calculations.
    - Use **Intl.DateTimeFormat** for date formatting.
    - Validate user input and display meaningful messages.
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## Submission Instructions

- Complete the assignment within **one week**.
  - Upload the project to your own **GitHub repository**.
  - Share the **GitHub repository link** along with a **README.md** containing:
    - Brief description of the project.
    - Steps to run the project.
    - Any additional features implemented.
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## Bonus Points (Optional Enhancements)

- Implement a **time difference calculator** (e.g., HH:MM:SS difference between two times).
  - Allow the user to **change time zones** and see the difference.
  - Add a **countdown timer** for a selected future date.
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## Evaluation Criteria

- **Code Quality**: Clean, well-structured, and commented.
- **Functionality**: Features should work without errors.
- **Design & UX**: The UI should be smooth and interactive.
- **GitHub Usage**: Proper repository structure, meaningful commits, and a well-documented README.

Good luck!