

## **Asynchronization**

- Write JavaScript code that demonstrates the use of callback functions with asynchronous operations. The assignment will involve creating and using callbacks to handle data from simulated asynchronous tasks.

Instructions:

1. Create a Simulated Asynchronous Task:
  - Write a function `fetchData` that simulates fetching data from a server. Use `setTimeout` to simulate a delay in data retrieval. The function should accept a callback function that will be called with the fetched data.
2. Define Callback Functions:
  - Define two callback functions:
    - `displaySuccess`: This function should handle and display successful data retrieval.
    - `displayError`: This function should handle and display errors if data retrieval fails.
3. Invoke the Asynchronous Function:
  - Call `fetchData` with both `displaySuccess` and `displayError` as arguments. Simulate both successful and unsuccessful data retrieval scenarios.
4. Simulate Different Scenarios:
  - Update `fetchData` to randomly simulate success or failure. Ensure that your callback functions handle both outcomes appropriately.
5. Update the DOM:
  - Create an HTML page with a `<div>` element to display messages. Update this `<div>` based on the outcome of the asynchronous operation using your callback functions.

### **setTimeout () function :**

- Program to display a text using `setTimeout` method
- program to display time every 3 seconds
- program to stop the `setTimeout()` method

### ➤ **Exercise: Creating a Timer**

1. **Create a function** called `startTimer` that:
  - Takes a single parameter: the number of seconds you want the timer to run.
  - Uses `setInterval` to log the remaining time every second.
  - Stops the timer when the countdown reaches zero.
2. **Create another function** called `stopTimer` that:
  - Clears the interval and stops the timer.
3. **Integrate both functions** so that the timer starts when `startTimer` is called and can be stopped by calling `stopTimer`