



Objective:

By completing this task, you will:

- ➤ Master async/await syntax for handling asynchronous operations cleanly
- Create and handle Promises for custom asynchronous functions
- ➤ Make HTTP requests using Fetch API with proper error handling
- > Implement GET and POST requests to communicate with external APIs
- > Build a complete weather application demonstrating real-world async patterns

Step 1 – Create Promise-Based Functions

- Build a function that returns a Promise to simulate data loading
- Create async functions using async/await syntax
- Implement proper error handling with try/catch blocks
- Practice sequential vs parallel operations with Promise.all()

Step 2 – Implement GET Requests with Fetch API

- Use fetch() to get weather data from a public API (OpenWeatherMap or similar)
- ➤ Handle response status codes and parse JSON data
- > Add error handling for network failures and invalid responses
- Create reusable functions for different API endpoints

Step 3 – Add POST Requests and Data Submission

- > Implement POST requests to save weather preferences
- > Send JSON data in request body with proper headers
- ➤ Handle API responses and error cases
- Create a simple API client class with GET and POST methods

Step 4 – Build Complete Weather Application

- Combine all async concepts in a weather dashboard
- > Fetch current weather and forecast data
- > Save user preferences using POST requests
- Display loading states and handle errors gracefully
- Use async/await throughout the application

Requirements

Tools:

- > Text editor (VS Code recommended)
- Node.js installed for running JavaScript
- ➤ Internet connection for API testing
- > Free API key from a weather service (optional, can use JSONPlaceholder for practice)

Reminder

- > Always use async/await instead of .then() for cleaner code
- Wrap fetch requests in try/catch blocks for error handling
- > Check response.ok before parsing JSON to handle HTTP errors
- ➤ Use Promise.all() for parallel operations to improve performance
- ➤ Include proper error messages for user-friendly feedback
- > Test with both valid and invalid API calls to ensure robust error handling

THANKY

