Weather App Documentation

Overview

This project is a simple weather application that lets users search for a city and view real-time weather details using the OpenWeather API. It shows temperature, humidity, wind speed, and a weather-related icon. The app also displays an error message when an invalid city is entered.

Project Structure

The app is made up of the following files:

- index.html – Handles layout and content
- style.css – Controls styling and visual design
- script.js – Handles API communication and dynamic updates
- assets/ – Folder containing weather icons and error image

How the App Works

1. User types a city name in the input box.
2. The app sends a request to the OpenWeather API.
3. If the API returns a 404 error, the app shows a 'Location Not Found' message.
4. If the response is valid, the app updates the UI with weather information.

API Request

The app uses the following API endpoint:
https://api.openweathermap.org/data/2.5/weather?q={city}&appid;={API_KEY}

Error Handling

When the API returns a 404 code, the main weather section is hidden and the error screen appears. This prevents incorrect or empty data from showing.

Weather Data Display

After receiving valid weather data, the app updates:
• Temperature (converted from Kelvin to Celsius)
• Weather description
• Humidity percentage
• Wind speed
• Weather icon based on the 'main' weather type

JavaScript Logic Summary

The JavaScript file handles:
• Reading user input
• Fetching weather data
• Updating UI components
• Displaying the correct weather icon
• Button click and Enter key interaction

How to Run the App

1. Download the project files.
2. Open index.html in a browser.
3. Enter any city name.
4. Weather results will update instantly.
5. A valid OpenWeather API key is required.