

# Weather App Report

## 1. Overview

The Weather App is designed to fetch and display weather information for a given city. Users can input a city name into the search box to retrieve its weather details. The application provides feedback for invalid city names and displays the current temperature, city name, humidity, and wind speed.

## 2. Technologies Used

CSS: Styles the elements on the web page, providing a visually appealing layout.

JavaScript: Handles the dynamic functionality, including fetching weather data and updating the UI.

## 3. Key Features

Search Functionality: Allows users to input a city name into the search box to fetch its weather details.

Error Handling: Displays an error message for invalid city names.

Weather Display: Shows the current temperature, city name, humidity, and wind speed.

Dynamic Weather Icon: Changes the weather icon based on the current weather condition.

## 4. Design and Layout

Fonts: Utilizes the 'Roboto' font family for typography.

Color Scheme: Features a gradient background with a dark theme, providing contrast and readability.

## 5. CSS Styling

Resetting Styles: Resets default styles for all elements.

Container Styling: Sets styles for the main container of the application, including background, padding, margin, and border-radius.

Search Bar Styling: Defines styles for the search input field and search button.

Weather Details Styling: Styles the weather details section, including temperature, city name, humidity, and wind speed.

## 6. JavaScript Functionality

Fetching Weather Data: Utilizes the OpenWeatherMap API to fetch weather data for the specified city.

Error Handling: Displays an error message if the city is not found or if there is an error during fetching or parsing.

Updating DOM: Updates the DOM with the fetched weather data, including temperature, city name, humidity, wind speed, and weather icon.

Event Listeners: Adds event listeners to the search button and search input field to fetch weather data when the user clicks the button or presses the Enter key.