### **GitHub Repository: Weather Dashboard**

#### **Project Description**

Weather Dashboard is a web application that displays real-time weather information for any city and a 5-day weather forecast. It uses the OpenWeatherMap API to fetch the weather data and displays it in a user-friendly interface. The project is built with HTML, CSS, and JavaScript.

#### **Project Structure**

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weather-dashboard/

├── index.html

├── styles/

│ ├── main.css

├── scripts/

│ ├── app.js

├── assets/

│ ├── images/

│ │ ├── weather-icons/

│ │ │ ├── clear.png

│ │ │ ├── cloudy.png

│ │ │ ├── rainy.png

│ │ │ ├── snow.png

├── README.md

#### **README.md**

markdown

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# Weather Dashboard

## Description

Weather Dashboard is a web application that provides real-time weather information and a 5-day weather forecast for any city. The application fetches weather data from the OpenWeatherMap API and displays it in a clean and user-friendly interface.

## Features

- Search for current weather and a 5-day forecast by city name.

- Display temperature, humidity, wind speed, and weather conditions.

- Show weather icons based on the current weather conditions.

- Use geolocation to get the current location's weather.

## Technologies Used

- HTML

- CSS

- JavaScript

- OpenWeatherMap API

## How to Use

1. Clone the repository:

```bash

git clone https://github.com/yourusername/weather-dashboard.git

1. Open index.html in your web browser.
2. Enter a city name in the input box and click "Get Weather" to see the weather information.
3. Click "Use My Location" to get the weather for your current location.

## **API Reference**

* OpenWeatherMap API

## **Screenshots**

## **License**

This project is licensed under the MIT License.

## **Contact**

Created by [Your Name](https://github.com/yourusername) - feel free to contact me!

## **Future Enhancements**

* Add support for multiple languages.
* Implement unit tests for the JavaScript code.
* Add charts to display temperature trends.

## **Contributing**

1. Fork the project.
2. Create your feature branch (git checkout -b feature/AmazingFeature).
3. Commit your changes (git commit -m 'Add some AmazingFeature').
4. Push to the branch (git push origin feature/AmazingFeature).
5. Open a Pull Request.

## **Acknowledgements**

* OpenWeatherMap for providing the weather data API.

php

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#### index.html

```html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Weather Dashboard</title>

<link rel="stylesheet" href="styles/main.css">

</head>

<body>

<div class="container">

<h1>Weather Dashboard</h1>

<div class="search">

<input type="text" id="city" placeholder="Enter city name">

<button onclick="getWeather()">Get Weather</button>

<button onclick="getLocationWeather()">Use My Location</button>

</div>

<div id="weather">

<h2 id="city-name"></h2>

<img id="weather-icon" src="" alt="Weather Icon">

<p id="temperature"></p>

<p id="humidity"></p>

<p id="wind"></p>

<p id="description"></p>

</div>

<div id="forecast">

<h2>5-Day Forecast</h2>

<div id="forecast-details"></div>

</div>

</div>

<script src="scripts/app.js"></script>

</body>

</html>

#### **styles/main.css**

css

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body {

font-family: Arial, sans-serif;

background-color: #f0f0f0;

margin: 0;

padding: 20px;

}

.container {

max-width: 800px;

margin: 0 auto;

background-color: #fff;

padding: 20px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

h1 {

text-align: center;

}

.search {

display: flex;

justify-content: center;

margin-bottom: 20px;

}

#city {

width: 60%;

padding: 10px;

border: 1px solid #ccc;

border-radius: 4px;

margin-right: 10px;

}

button {

padding: 10px;

border: none;

background-color: #007BFF;

color: #fff;

cursor: pointer;

border-radius: 4px;

}

button:hover {

background-color: #0056b3;

}

#weather {

text-align: center;

margin-top: 20px;

}

#weather img {

width: 100px;

}

#weather p {

font-size: 1.2em;

}

#forecast {

margin-top: 30px;

}

#forecast-details {

display: flex;

justify-content: space-around;

}

.forecast-item {

text-align: center;

width: 18%;

background-color: #e0e0e0;

padding: 10px;

border-radius: 4px;

}

.forecast-item img {

width: 50px;

}

#### **scripts/app.js**

javascript

Copy code

const apiKey = 'YOUR\_OPENWEATHERMAP\_API\_KEY';

function getWeather() {

const city = document.getElementById('city').value;

if (city) {

const url = `https://api.openweathermap.org/data/2.5/weather?q=${city}&appid=${apiKey}&units=metric`;

fetch(url)

.then(response => response.json())

.then(data => displayWeather(data))

.catch(error => showError(error));

const forecastUrl = `https://api.openweathermap.org/data/2.5/forecast?q=${city}&appid=${apiKey}&units=metric`;

fetch(forecastUrl)

.then(response => response.json())

.then(data => displayForecast(data))

.catch(error => showError(error));

} else {

alert('Please enter a city name.');

}

}

function getLocationWeather() {

if (navigator.geolocation) {

navigator.geolocation.getCurrentPosition(position => {

const lat = position.coords.latitude;

const lon = position.coords.longitude;

const url = `https://api.openweathermap.org/data/2.5/weather?lat=${lat}&lon=${lon}&appid=${apiKey}&units=metric`;

fetch(url)

.then(response => response.json())

.then(data => displayWeather(data))

.catch(error => showError(error));

const forecastUrl = `https://api.openweathermap.org/data/2.5/forecast?lat=${lat}&lon=${lon}&appid=${apiKey}&units=metric`;

fetch(forecastUrl)

.then(response => response.json())

.then(data => displayForecast(data))

.catch(error => showError(error));

});

} else {

alert('Geolocation is not supported by this browser.');

}

}

function displayWeather(data) {

document.getElementById('city-name').innerText = data.name;

document.getElementById('temperature').innerText = `Temperature: ${data.main.temp}°C`;

document.getElementById('humidity').innerText = `Humidity: ${data.main.humidity}%`;

document.getElementById('wind').innerText = `Wind Speed: ${data.wind.speed} m/s`;

document.getElementById('description').innerText = data.weather[0].description;

document.getElementById('weather-icon').src = `https://openweathermap.org/img/wn/${data.weather[0].icon}.png`;

}

function displayForecast(data) {

const forecastContainer = document.getElementById('forecast-details');

forecastContainer.innerHTML = '';

for (let i = 0; i < data.list.length; i += 8) {

const forecastItem = document.createElement('div');

forecastItem.className = 'forecast-item';

const date = new Date(data.list[i].dt\_txt);

const day = date.toLocaleString('en-US', { weekday: 'short' });

forecastItem.innerHTML = `

<p>${day}</p>

<img src="https://openweathermap.org/img/wn/${data.list[i].weather[0].icon}.png" alt="Weather Icon">

<p>${data.list[i].main.temp}°C</p>

`;

forecastContainer.appendChild(forecastItem);

}

}

function showError(error) {

alert('Error: Unable to fetch weather data. Please try again later.');

}

### **Instructions**

**Clone the repository:**bash  
Copy code  
git clone https://github.com/yourusername/weather-dashboard.git

**Navigate to the project directory:**bash  
Copy code  
cd weather-dashboard

1. **Open the index.html file in your browser.**
2. **Enter a city name in the input box and click "Get Weather" to see the weather information.**
3. **Click "Use My Location" to get the weather for your current location.**

### **Note**

Replace YOUR\_OPENWEATHERMAP\_API\_KEY in app.js with your actual OpenWeatherMap API key. You can obtain an API key by signing up at [OpenWeatherMap](https://openweathermap.org/).