

Weather App Project Requirements Document

Project Name: Weather App

Overview

The Weather App Project is a simple web application that allows users to enter a city name and retrieve the current weather information for that city. The application will display the temperature, humidity, wind speed, and an appropriate weather icon based on the weather condition. The project will utilize HTML, CSS, Bootstrap, and JavaScript (ES6 features) to build the application.

Prerequisites

- Basic knowledge of HTML, CSS, and JavaScript (ES6)
- Visual Studio Code (VSCode) editor
- Internet connection to access the OpenWeatherMap API or any other API or Dummy API

Steps to Build the Project

1. Create Workspace

- Create a workspace in VSCode and name it es6-weather-app-project.

2. Create HTML Template

- Create index.html with a basic HTML template and set the title as "My Weather App".
- Include Bootstrap CSS for styling.

3. Create CSS File

- Create style.css and link it in the HTML file.
- Add styles for the classes such as card, search, weather, etc.

4. Create Image Folder

- Create an img folder and place downloaded images such as search icon, weather icons, etc.

5. Get API Key and URL

- Register and login to [OpenWeatherMap](https://openweathermap.org/) to get the apiKey and apiUrl.

6. Create JavaScript File

- Create script.js and start building the JavaScript code.

Detailed Requirements

HTML Structure

- **index.html:**
 - Title: "My Weather App"
 - Include Bootstrap CSS for styling.
 - Create a container for the weather app.
 - Add a card component to hold the search input and weather details.
 - Create an input box for entering the city name.
 - Add a button with a search icon.
 - Create a section to display weather details such as city, temperature, humidity, wind speed, and weather icon.

CSS Styling

- **style.css:**
 - Style the body with a background color and font family.
 - Style the container to center it on the page.
 - Style the card component with padding, border-radius, and box-shadow.
 - Style the search input and button for a cohesive look.
 - Style the weather details section to display the information clearly.

JavaScript Functionality

- **script.js:**
 - Declare constants for apiKey and apiUrl.
 - Define an asynchronous function checkWeather() to fetch weather data using the OpenWeatherMap API.
 - Use fetch to retrieve data from the API and log the data to the console.
 - Use document.querySelector to display the city, temperature, humidity, and wind speed.

- Update the weather icon based on the weather condition.
- Add an event listener to the search button to trigger the weather check when clicked.
- Ensure the city name is dynamically retrieved from the input field.
- Handle error scenarios for invalid city names.

Additional Features

- **Error Handling:** Handle scenarios where the user enters an invalid city name.
- **Dynamic Updates:** Update the weather information dynamically when the user enters a city name and clicks the search button.
- **Image Updates:** Update the weather icon based on the weather condition (sunny, rain, clouds, clear, drizzle, mist).

Screenshots:

