Weather Web App

Develop a web application that allows users to check the current weather for a location by making asynchronous requests (AJAX) to a weather API. The app should display weather data in a user-friendly format and handle error cases gracefully.

Requirements

- 1. *Homepage:* Create a homepage that provides a simple user interface. Include a search input field where users can enter a location (e.g., city or ZIP code) and a "Get Weather" button to trigger the weather request.
- 2. *Weather Display:* Display the current weather conditions for the specified location. Include details such as temperature, humidity, wind speed, and weather description. You can choose a weather API (e.g., OpenWeatherMap) to fetch this data.
- 3. *Error Handling:* Implement error handling for cases where the location entered by the user is not found or when there is an issue with the API request. Display a user-friendly error message and guide the user on how to proceed.
- 4. *Unit Selection:* Allow users to switch between temperature units (e.g., Celsius and Fahrenheit). Implement a toggle or dropdown to switch between units, and ensure that the weather data is updated accordingly.
- 5. *Optional: Geolocation:* Offer the option to use the user's geolocation to automatically fetch the weather for their current location. Ensure that you request and handle geolocation permissions appropriately.
- 6. *Styling:* Apply CSS styles to make the app visually appealing and ensure a good user experience. Pay attention to layout, color scheme, and readability.
- 7. *Responsive Design:* Ensure that the app is responsive and functions well on both desktop and mobile devices. Test its usability on various screen sizes.

Deliverables

Submit the project as a set of HTML, CSS, and JavaScript files organized in a directory structure. Include any necessary assets and the API key (if required). Additionally, provide clear instructions on how to use the application and what to expect in terms of features and functionality.

This project will assess the candidate's ability to create a functional and user-friendly web application using AJAX to fetch and display data from an external API. It also evaluates their skills in error handling and user interface design.