Weather App

Objective:

The primary objective of this Weather App is to provide users with real-time weather information based on their current location or by searching for a specific city. The app aims to be user-friendly, accurate, and accessible on multiple devices, allowing users to easily track weather conditions such as temperature, humidity, wind speed, and more.

About:

This Weather App is a responsive web application built using HTML, CSS, and JavaScript. It leverages the OpenWeatherMap API to fetch and display weather data. Users can either allow the app to access their current location or manually search for any city's weather details. The interface is designed with simplicity in mind, ensuring users can quickly obtain weather information with minimal effort. The app is optimized for both desktop and mobile devices, offering a smooth experience across different screen sizes.

Features:

1. **Real-time Location-based Weather Information:**
    - The app fetches weather data based on the user's current geographic location by accessing the device's GPS and displays key information such as temperature, weather conditions, humidity, wind speed, and cloud coverage.
2. **Search Functionality:**
    - Users can search for the weather in any city by simply typing the city name and retrieving real-time weather updates for that location.
3. **Dynamic UI for Weather Details:**
    - The app dynamically updates the weather data on the interface with information such as the city name, temperature, weather description, country flag, and weather icons corresponding to current conditions.
4. **Support for Metric Units:**
    - Weather data such as temperature is displayed in Celsius, and wind speed is shown in meters per second (m/s), making the information easily interpretable for a global audience.

5. **Error Handling:**
    - The app handles errors gracefully, providing feedback to the user in case of issues such as invalid city searches or failure to access location.
6. **Location Access Prompt:**
    - The app requests permission to access the user's location for displaying the local weather. If permission is not granted, a user-friendly prompt encourages the user to enable location access.
7. **Loading State Feedback:**
    - A loading spinner is displayed while the app fetches weather data, ensuring users are aware that the data is being processed.
8. **Fallback for Location Denial:**
    - If the user denies location access, the app still allows the user to manually search for weather information by city.
9. **Mobile-friendly Design:**
    - The app is designed to work seamlessly on both desktop and mobile devices, with a responsive layout and touch-friendly buttons.
10. **Session Storage for User Coordinates:**
    - The app saves user coordinates in session storage to avoid requesting location access repeatedly, providing a better user experience.
11. **Country Flag Integration:**
    - The country of the searched or detected city is represented by its national flag, adding visual appeal and geographic context.

These features make the app a convenient tool for checking weather conditions anywhere in the world.

Screenshot