Weather Forecast Table And Chatbot

# Project Overview

This project is a web-based application that integrates two main features:  
1. Weather Forecast: Users can input a city name to retrieve weather forecasts using the OpenWeather API.  
2. Chatbot: A chatbot that provides weather information and handles general queries.  
It allows users to interact with a forecast table displaying weather data for the selected city. Users can also filter or sort the forecast results, and the bot will respond with current weather conditions.

# Prerequisites

Before running the project, you need the following API keys:  
1. OpenWeather API Key: To fetch weather data. Replace the placeholder WEATHER\_API\_KEY in the code with your actual key.  
2. Gemini API Key: To generate responses from the chatbot. Replace the GEMINI\_API\_KEY placeholder with your key.  
  
You can sign up for an OpenWeather API key at https://openweathermap.org/api and for Gemini at https://cloud.google.com/.

# Setup Instructions

1. Clone or download this repository to your local machine.  
2. Open the code file and replace the `WEATHER\_API\_KEY` and `GEMINI\_API\_KEY` placeholders with your actual API keys.  
3. Host the project locally using a simple HTTP server or web server. You can use Python's HTTP server as shown below:

# Running the Project Locally

1. After setting up the project, open a terminal and navigate to the project folder.  
2. Start a local server using the command above.  
3. Open your web browser and go to `http://localhost:8000` to access the application.  
4. You can now enter a city name to fetch weather forecasts or interact with the chatbot.  
 - To get a weather forecast, enter a city name and press Enter. You can also filter or sort the weather data using the dropdown menu.  
 - To interact with the chatbot, use the chat input box.

# Features

1. Weather Forecast: Displays weather details such as temperature, humidity, wind speed, and description. You can filter and sort the results using different options, such as hottest day or rain forecast.  
2. Chatbot: Responds to user queries related to weather and general questions.

# Error Handling

The application provides error messages if the weather data cannot be retrieved or the chatbot cannot process the request. Make sure that the city name is spelled correctly, and verify your API keys if issues arise.