Weather Forecast Notifier

Introduction

The Weather Forecast Notifier is a Python script that fetches weather information for a specified city from the OpenWeatherMap API and sends a weather report via email. This project is designed for beginners and helps in understanding API integration, data formatting, and email automation.

Prerequisites

Before running the script, ensure you have the following:
- Python installed on your system.
- An API key from OpenWeatherMap (https://openweathermap.org/api).
- An email account with app password enabled (for example, Outlook, Gmail).
- Required Python libraries installed (requests, smtplib, email, decouple).

Installation

1. Clone or download the repository.
2. Install the required Python libraries using pip:
   ```
   pip install requests python-decouple
   ```

Script Explanation

Step 1: Fetch Weather Data

The script uses the OpenWeatherMap API to fetch the weather data. An API key and a city name are required. The API key is used for authentication.

Step 2: Format Weather Data

The weather data is parsed and formatted into a user-friendly message that includes the temperature and weather description.

Step 3: Send Email

The email is composed using the smtplib library and sent via an SMTP server. For Outlook, the SMTP server 'smtp.office365.com' is used. An app password is required for authentication.

Usage

1. Update the `api_key`, `from_email`, `to_email`, and `password` variables in the script.
2. Run the script:

```
python weather_notifier.py
```

Security Note

Avoid hardcoding sensitive information like API keys and email passwords in the script. Use environment variables or a .env file to store these credentials securely.

Conclusion

This script demonstrates how to integrate APIs and automate tasks using Python. You can customize the script to include additional features such as handling multiple cities, enhanced formatting, or scheduling email notifications.