

Non-Textbook Lab 9: Weather App (50 points)

Objective: Write program in Python using wrapper API to get weather information.

Step 1.1: Get PyOWM API key (5 pts)

Follow these steps to get a weather info API key from Open Weather Map.org:

- Go to openweathermap.org/appid
- Under “**Sign up and call API for free**”, click “**Sign up**”
- Register. Click “**Create an Account**”. Remember your login and password.
- They may send a confirmation link to the email you used to register. Use it to confirm.
- Go to “API keys”.
- Copy key from gray box into a text file and save it for later. You will insert the key into the provided Python code that accesses the API.

Step 1.2. Install PyOWM module on your computer (10 pts)

Follow these steps to install PyOWM module on your computer:

- Start your terminal (Windows users start WSL terminal or Windows Console).
- Type `pip3 install pyowm` (the module should install).

Step 1.3: Download, Add Code, and Test interactive App (35 pts)

From this assignment in Canvas, download the starter app **weather.py**. It includes a pre-defined function **getweather()** that calls OWM’s Web-API to get today’s temperatures (in Fahrenheit) for the specified city and return them in a **dictionary** with keys “temp_max”, “temp”, and “temp_min”. Do **not** edit **getweather()**. Insert your API key where indicated.

Add code in **main()** that asks users for a city and country, calls **getweather()** with the city and country, prints the min, current, and max temperatures from the returned dictionary **in both Fahrenheit and Celsius** ($(^{\circ}\text{F} - 32) / 1.8 = ^{\circ}\text{C}$), then asks the user if they want to check another city (with input validation). The program’s input and output should look like this if the user enters **Y** or **N** (but if the user enters anything other than **Y** or **N**, it asks again):

Check temperature in cities worldwide

City: Paris

Country: France

Max temperature: 42.01 F 5.56 C

Current temperature: 36.39 F 2.44 C

Minimum temperature: 28.99 F -1.67 C

Check weather in another city? (Y or N): Y

City: NY

Country: USA

Submitting

Upload **weather.py** with your API keys in it to NT Lab 9 in Canvas, with a **readme.txt**.