Assignment 5: Open Weather Map API (8% of total grade)

Format: When you submit your files to Blackboard, **DO NOT** include the **api-key.txt** file. I will use my own key when marking. Upload a zipped folder containing only the html/css/js files in the **HTTP5122-A5-files** folder, name the zipped folder **HTTP5122-A5-LastNameFirstName.zip**.

Purpose: To reinforce and assess techniques learned in class

- String concatenation and manipulation
- Creating and using functions
- DOM interaction and manipulation
- Creating and using event listeners
- AJAX calls to remote content
- Reading API documentation to find the data and code that you wish to use
- Using an API to retrieve data
- Extracting values from a JSON data set

REQUIREMENTS: Create the JavaScript code to complete the functionality for the provided weather application. <u>You may not use jQuery for this assignment.</u> (see rubric on page 2)

Current Weather Application (5%)

1. The user will see two city buttons, each with the name of a city: Toronto, and a second city of your choosing.
2. Clicking on one of the buttons will reveal the hidden output section.
3. Retrieve your API KEY from the api-key.txt file, you may use the function included in Lab 10.
4. This section will provide the current weather data for the selected city by using AJAX to fetch the OpenWeatherMap Current Weather Data API. Output to the appropriate areas of the webpage will be:
   a. the name of the selected city
   b. the current temperature (in Celsius, with text to indicate °C)
   c. the current weather conditions
   d. the API icon that represents the current weather conditions
   e. A fifth property of your choosing. Add contextual text or adjust the raw data to make it user friendly. E.g. in step (b) above, we added °C to the text.
5. Clicking on either button will update the output section with the current weather data for the selected city.
6. Catch errors from your API calls and display then in the ERROR SECTION of the web page, hide the OUTPUT SECTION when errors need to be displayed

STRETCH GOAL: ONE FUNCTION TO RULE THEM ALL (2%)

7. Make your code "bulletproof" by creating one function to handle both (and any additional!) cities.

Remember to use the VS Code 'Live Server' extension to run your code

Marking Rubric

Criteria	Proficient
Clicking a City [1]	The output section appears; Current Weather API data for the specified city populates the output section.
Weather Icon [1]	The weather conditions icon appears in the output, fed from the JSON data.
Fifth Data Item [2]	A fifth data property from the JSON object has been injected into new markup on the web page and used appropriately.
Error Handling [1]	If an AJAX error occurs, a message appears on the web page informing the user.
Professional Practice [1]	The js file has navigational and explanatory commenting, and all self-reflection questions have been answered.
Stretch Goal [2]	A named function is used. The city is retrieved with some dynamic method allowing any city to be used as a replacement.
Critical Fail	**Automatic 0 on assignment for use of jQuery**
Coding Conventions	-0.25 each, max -1

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