# Lab 10 - Working with APIs and JSON (2%)

REQUIREMENTS:          *Using lab10-apis.html…*

***Create a web page that provides weather data for Toronto using the openweathermap.org API.***

1.  Go to [openweathermap.org,](#) create an account and **select the "Current Weather Data" free plan** from the options, and create your own API key.

2.  Create a URL to request Toronto weather data in Celsius.

3.  Use AJAX (XMLHttpRequest object) to retrieve the API data & output the following data to the webpage:                              **(1%)**
    a.  the name of the selected city (Toronto)

    b.  the current temperature (in Celsius), and

    c.  the current weather conditions.

4.  Be sure to handle AJAX errors. The user should see a message on the web page - no popups!                                                 **(0.5%)**

5.  **When you submit your files to Blackboard, paste your API key into your submission text. You must provide your own unique API key or you will receive zero for this lab.**

NOTE: You may not use jQuery or the *fetch* API for this lab.

## STRETCH GOAL: FORMAT YOUR OUTPUT                    (0.5%)

To make our data more human readable, sometimes we need to manipulate or modify the raw data into something that a human user would expect, for example, adding $ to a price and limiting the decimal to two places.

For this lab exercise modify your output to a human-friendly form:
- Add °C to the temperature **using an HTML entity** and round to nearest integer.
- Make the first letter of weather conditions an uppercase letter and put a period at the end of its description.

NOTE: You may need to look these up. **Cite your sources with links as comments in your code.**