Lab 2 – APIs

Due 1/27 before class

Weather app (see second page for an explanation on why this lab!)

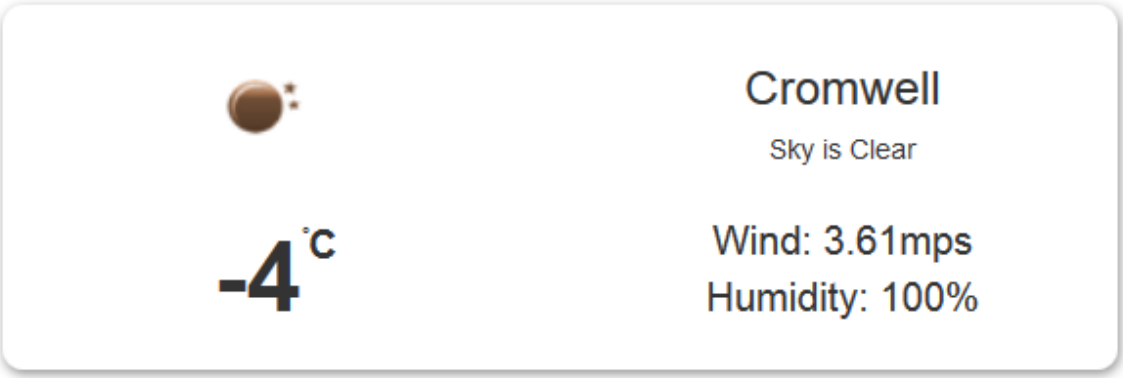
Use OpenWeatherMap for this lab! Connect to its API and see what information you get back from it. Don't forget to check out the HTTP response headers: do they include extra metadata not found in the JSON that you might find useful?

Next, write a web app to show the weather at the user's current location, and then – think "creativity," fill out the rest of your app with other information provided to you by the API.

(Check out the API documentation to see what other information you can get… *e.g.*, Air Quality, UV Index, etc..)

Hints:
Get the current location from the browser (HTML5 Geolocation)
Pass the location parameters (lat+long) to the api and get the weather data
Populate the weather data in the html
Use CSS transitions/animations to enhance the look and feel of the app

Example implementation using Bootstrap



You will be graded on the following;

Objective 1 – Processing API : 10

Objective 2 – Displaying output : 10

Creativity : 10

Documentation/Readme : 20

Why the seemingly simplistic lab?

I want you to spend a significant amount of time this week *looking at how real-world APIs organize and offer data*. Even though you will only use one API to complete the lab, your job is to play around with lots of different APIs (doesn't have to be weather APIs). You should take good notes on how data is organized, why you think the data is organized the way it is, what you like about this organization, and things you would change/add/remove/etc. Don't forget to check the HTTP response headers–they may contain additional metadata!

*YOUR README FILE MUST INCLUDE DETAILED DESCRIPTIONS OF ALL THE APIS YOU HAVE EXAMINED THIS WEEK (AT LEAST **THREE**, BUT MORE IS BETTER), INCLUDING EVERYTHING IN THOSE NOTES!*

(Also, it gives you time to work on your project proposals, which are now due 1/31!)