

### Lab 3

Due 2/9, before class

Copy everything you have for lab 2 into a new directory named lab3.

Take your OpenWeatherMap API account and two or three other free APIs and create an app that **synthesizes** the information. To do this, you will need to continue to build your API that you started in lab 2. Your frontend **may only talk to Node**.

Other rules:

You should write at least half a dozen new GET endpoints. Every GET endpoint must return to the frontend a JSON object that contains data from **at least two** data sources. A data source is your JSON object with all your news articles and the external APIs (OpenWeatherMap and whatever else you choose). The frontend must then display this data nicely (think: all the things you did in Web Sys).

You must write at least one new POST endpoint. This POST endpoint must add data from at least one of your external APIs to your JSON object.

You must write at least one new PUT endpoint. This PUT endpoint must update data in your JSON object from at least one of your external APIs.

You do not need to write any additional DELETE endpoints. But you can for creativity.

You may also complete anything you did not get to complete from lab 2 here in lab 3 (don't go back to lab 2, complete those things here in this lab).

Document running work log, where you got stuck, how you got unstuck, and all citations in your README.md file. **No citations = 0 on lab.**

### Grading

This lab is worth  $50 + n$  points, where  $n$  is the number of points you lost from lab 2 (late and other penalties not included). If you did not finish lab 2, you can earn those points back by finishing those things in this lab. Document in your README what you finished from lab 2 in lab 3. You may only gain any fraction of  $n$  points by proving that you completed the things you did not complete in lab 2.

API development	20 pts
Frontend	10 pts
Creativity	10 pts
README.md	10 pts
Finishing lab 2	$n$ pts
<b>TOTAL</b>	<b><math>50 + n</math> pts</b>