

CSCD 330-040 Computer Networks

Lab 2, Web API - Due, October 4, 2023

September 27, 2023

Part 1

Web API introduction.

Let's query the weather at a few locations using the web API provided by the [national weather service](#)! Together we'll see how to do this in python and how to use bash to run the python script.

Part 2

Task overview:

I want to know the weather for the company that registered the IP address for a particular URL. Write me a python program that can do this from the command line. Your program will have to use a few different web API calls from various servers on the Internet.

Turn in:

Submit a tarball of everything (source code, pdf, test files, etc.). `tar` is an archiving and compression tool that is very helpful. To “tar up,” say all the pdf files, all the python files, all the bash files and the README in the directory you are in, you would use the command:

```
tar -czvf lab2_turnin_MYNAME.tar.gz *.sh *.pdf *.py README
```

I expect a test file/program that runs the program on sample input. You may use python or bash, but have a README file that explains how to run it.

Steps:

This may seem like a big task, but break it up into the steps provided below. You must use the web APIs from the sites provided in the last two steps.

1. URL to IP

The first step is to look up the IP address of a specific URL. You might recall we did DNS resolution on lab 1.

2. IP to Physical Address

Next you'll need to get the physical address of the company who registered the IP address you discovered from the previous step. I wonder `whois` able to do that?

3. Physical Address to lat/lon

Now that you have the physical address you need to use a web API to find the latitude and longitude for that location. Use the API provided by https://geocoding.geo.census.gov/geocoder/Geocoding_Services_API.html .

4. lat/lon to Weather

Finally with the latitude and longitude we can use a web API to pull the weather. Use the API provided by <https://weather-gov.github.io/api/general-faqs> .