

CSCI 77800 -- 2024 FA -- Edgar E. Trout, Ph.D.

Notebook 1 - Demonstrating loading and displaying a basic photo from a web API.

This demonstrates using Jupyter notebook's picture display option. It is explained here:
<https://saturncloud.io/blog/how-to-show-images-in-jupyter-notebook/>

Code example borrows heavily from above site, with Edgar's customizations.

The code requires the installation of the pillow library. You can do this with the below pip command.

Some folks may need to customize the call to pip. It may be `/usr/bin/python3 -m pip` for some.

```
In [1]: ! pip install pillow
```

Requirement already satisfied: pillow in c:\users\colin\appdata\local\packages\pythonsoftwarefoundation.python.3.11_qbz5n2kfra8p0\localcache\local-packages\python311\site-packages (10.4.0)

After installing the pillow library, execute the below code.

As this is pulling live from the web twice, it may take a few minutes to load. Also, if your Jupyter installation is firewalled, you will not be able to access the web at all.

```
In [12]: # PIL = pillow library
from PIL import Image
from IPython.display import display

# This code is taken from my simpleFood2.py example.
import json
import urllib.request

food = input("What kind of food would you like to search for an image of?")

web_data = urllib.request.urlopen( url=f"https://foodish-api.com/api/images/{food}" )
json_data = web_data.read()
json_string = json.loads( json_data )

img_data = urllib.request.urlopen( json_string['image'] )
img = Image.open( img_data )
display(img)
```



In []: