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root@Nestor:~# cd ~/demo
root@Nestor:~/demo# cp ~/iot/lesson7/thingspeak_cpu_loop.py .
root@Nestor:~/demo# cp ~/iot/lesson7/thingspeak_feed.py .
root@Nestor:~/demo# cat thingspeak_cpu_loop.py
import http.client, urllib.request, urllib.parse, urllib.error
from time import localtime, strftime
import psutil
import time
def doit():
    cpu_pc = psutil.cpu_percent()
    mem = psutil.virtual_memory()
    mem_avail_mb = mem.available/(1024*1024)
    params = urllib.parse.urlencode({'field1': cpu_pc, 'field2':
        mem_avail_mb, 'key': 'YOURKEYHERE'})
    headers = {"Content-type":
        "application/x-www-form-urlencoded", "Accept": "text/plain"}
    conn = http.client.HTTPConnection("api.thingspeak.com:80")
    try:
        conn.request("POST", "/update", params, headers)
        response = conn.getresponse()
        print(cpu_pc)
        print(mem_avail_mb)
        print(strftime("%a, %d %b %Y %H:%M:%S", localtime()))
        print(response.status, response.reason)
        data = response.read()
        conn.close()

```

```

root@Nestor:~/demo# cat thingspeak_feed.py
import http.client, urllib.request, urllib.parse, urllib.error
from time import localtime, strftime
import psutil
import time
"""
2020-11-26: Pridhvi Myneni added lines 13-18, 25, and 43-54
1. gitignore (https://git-scm.com/docs/gitignore) now prevents students from pushing up credent
2. This program now attempts to cache the API key, but always prompts the user for their prefer
aving credentials locally.
3. Pickle data type used to store credentials. Pickle is a binary storage version of JSON. Plea
an-readable does not mean secure.
4. Removed key storage in source, which is generally a bad practice, as it leads to version con
ving your key.
5. Key for storage in a dictionary. This could be expanded in the future if other information n
larly stored.
"""
from pickle import dump as pickle_dump
from pickle import load as pickle_load
from os.path import exists as file_exists
from os.path import isfile as is_file
PICKLE_FILE_NAME = "API_KEY.pickle"
API_KEY_INDEX = "API_KEY"
def doit():
    cpu_pc = psutil.cpu_percent()
    mem = psutil.virtual_memory()

```

```

root@Nestor:~/demo# python3 thingspeak_feed.py
20.0
14916.15625
Wed, 22 Nov 2023 18:50:35
200 OK

```

Private View

Public View

Channel Settings

Sharing

API Keys

Data Import / Export

+ Add Visualizations

+ Add Widgets

Export recent data

MATLAB Analysis

MATLAB Visualization

## Channel Stats

Created: 1.3 minutes ago

Last entry: less than a minute ago

Entries: 10

