

ASSIGNMENT-2

Team ID :	NM2023TMID12392
Team Leader :	Theerthammal K
NAME :	Selvapriya S
TITLE :	Generate Temperature and Humidity Values in Python.

CODE:

```
"""
```

```
'temp_humidity.py'
```

```
=====
```

```
Example of sending analog sensor values
```

```
to an Adafruit IO feed.
```

```
Author(s): Brent Rubell Dependencies:
```

```
- Adafruit IO Python Client
```

(<https://github.com/adafruit/io-client-python>)

- Adafruit_Python_DHT
(https://github.com/adafruit/Adafruit_Python_DHT)

```
"""
```

```
# import standard python modules.
```

```
import time
```

```
# import adafruit dht library.
```

```
import Adafruit_DHT
```

```
# import Adafruit IO REST client. from
```

```
Adafruit_IO import Client, Feed
```

```
# Delay in-between sensor readings, in seconds.
```

```
DHT_READ_TIMEOUT = 5
```

```
# Pin connected to DHT22 data pin
```

```
DHT_DATA_PIN = 26
```

```
# Set to your Adafruit IO key.
```

```
# Remember, your key is a secret,

# so make sure not to publish it when you publish this code!

ADAFRUIT_IO_KEY = 'YOUR_AIO_KEY'


# Set to your Adafruit IO username.

# (go to https://accounts.adafruit.com to find your username).

ADAFRUIT_IO_USERNAME = 'YOUR_AIO_USERNAME'


# Create an instance of the REST client.

aio = Client(ADAFRUIT_IO_USERNAME, ADAFRUIT_IO_KEY)


# Set up Adafruit IO Feeds. temperature_feed

= aio.feeds('temperature') humidity_feed =

aio.feeds('humidity')


# Set up DHT22 Sensor.

dht22_sensor = Adafruit_DHT.DHT22

while True:
```

```
        humidity, temperature = Adafruit_DHT.read_retry(dht22_sensor,
DHT_DATA_PIN)    if humidity is not None and temperature is not
None:            print('Temp={0:0.1f}*C
Humidity={1:0.1f}%'.format(temperature, humidity))
```

```
    # Send humidity and temperature feeds to Adafruit IO
```

```
    temperature = '%.2f'%(temperature)          humidity =
    '%.2f'%(humidity)          aio.send(temperature_feed.key,
    str(temperature))          aio.send(humidity_feed.key,
    str(humidity))          else:
```

```
        print('Failed to get DHT22 Reading, trying again in ',
DHT_READ_TIMEOUT, 'seconds')
```

```
    # Timeout to avoid flooding Adafruit IO
```

```
    time.sleep(DHT_READ_TIMEOUT)
```