ASSIGNMENT-2

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TITLE :	Generate Temperature and Humidity Values in Python.

CODE:

```
"""

'temp_humidity.py'

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Example of sending analog sensor values

to an Adafruit IO feed.

Author(s): Brent Rubell Dependencies:

- Adafruit IO Python Client
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        (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,
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# 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,
```

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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)
```