**ASSIGNMENT-2**

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| TeamID: | NM2023TMID12352 |
| TeamLeader: | R. SUTHEEN |
| NAME: | M. ALEXPANDIYAN |
| TITLE: | GenerateTemperatureandHumidityValues  usingPython. |

CODE:

"""

'temp\_humidity.py'

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ExampleofsendinganalogsensorvaluestoanAdafruitIOfeed.

Author(s):BrentRubellDependencies:

* AdafruitIOPythonClient

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

* Adafruit\_Python\_DHT(https://github.com/adafruit/Adafruit\_Python\_DHT)

"""

#importstandardpythonmodules.importtime

#importadafruitdhtlibrary.importAdafruit\_DHT

#importAdafruitIORESTclient.fromAdafruit\_IOimportClient,Feed

#Delayin-betweensensorreadings,inseconds.

DHT\_READ\_TIMEOUT=5

#PinconnectedtoDHT22datapinDHT\_DATA\_PIN=26

#SettoyourAdafruitIOkey.

#Remember,yourkeyisasecret,

#somakesurenottopublishitwhenyoupublishthiscode!ADAFRUIT\_IO\_KEY='YOUR\_AIO\_KEY'

#SettoyourAdafruitIOusername.

#(gotohttps://accounts.adafruit.comtofindyourusername).ADAFRUIT\_IO\_USERNAME='YOUR\_AIO\_USERNAME'

#CreateaninstanceoftheRESTclient.

aio=Client(ADAFRUIT\_IO\_USERNAME,ADAFRUIT\_IO\_KEY)

#SetupAdafruitIOFeeds.temperature\_feed

=aio.feeds('temperature')humidity\_feed=aio.feeds('humidity')

# Set up DHT22 Sensor.dht22\_sensor=Adafruit\_DHT.DHT22

whileTrue:

humidity,temperature=Adafruit\_DHT.read\_retry(dht22\_sensor,DHT\_DATA\_PIN) if humidity is not None and temperature is notNone: print('Temp={0:0.1f}\*CHumidity={1:0.1f}%'.format(temperature,humidity))

#SendhumidityandtemperaturefeedstoAdafruitIOtemperature='%.2f'%(temperature) humidity ='%.2f'%(humidity) aio.send(temperature\_feed.key,str(temperature)) aio.send(humidity\_feed.key,str(humidity)) else:

print('FailedtogetDHT22Reading,tryingagainin',DHT\_READ\_TIMEOUT,'seconds')

#TimeouttoavoidfloodingAdafruitIOtime.sleep(DHT\_READ\_TIMEOUT)