

Assignmentt 1

Batch No : B1-1M3E

Build a python code ,assume u get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect a alarm in case of

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# 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'
```

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# 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)

```