

## ASSIGNMENT 2

|         |                  |
|---------|------------------|
| Date    | 30 October 2022  |
| Team ID | PNT2022TMID14470 |
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**Build a python code, Assume u get temperature and humidity values (generated with a random function to a variable) and write a condition to detect an alarm in case of high temperature continuously.**

```
# 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
# UDAYA KEERTHI VS ASSIGNMENT 2
# 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)
```