PYTHON PROGRAM TO FIND TEMPERATURE AND HUMIDITY AND RAISE ALARM INCASE HIGH TEMPERATURE

```python
import dht
import machine
import network
import sys
import time
import urequests

import config

def connect_wifi():
    ap_if = network.WLAN(network.AP_IF)
    ap_if.active(False)
    sta_if = network.WLAN(network.STA_IF)
    if not sta_if.isconnected():
        print('Connecting to WiFi...')
        sta_if.active(True)
        sta_if.connect(config.WIFI_SSID, config.WIFI_PASSWORD)
        while not sta_if.isconnected():
            time.sleep(1)
    print('Network config:', sta_if.ifconfig())

def show_error():
    led = machine.Pin(config.LED_PIN, machine.Pin.OUT)
    for i in range(3):
        led.on()
        time.sleep(0.5)
        led.off()
        time.sleep(0.5)
    led.on()

def is_debug():
    debug = machine.Pin(config.DEBUG_PIN, machine.Pin.IN,
machine.Pin.PULL_UP)
    if debug.value() == 0:
        print('Debug mode detected.')
        return True
    return False

def get_temperature_and_humidity():
    dht22 = dht.DHT22(machine.Pin(config.DHT22_PIN))
```

```python
    dht22.measure()
    temperature = dht22.temperature()
    if config.FAHRENHEIT:
        temperature = temperature * 9 / 5 + 32
    return temperature, dht22.humidity()


def log_data(temperature, humidity):
    print('Invoking log webhook')
    url = config.WEBHOOK_URL.format(temperature=temperature,
                        humidity=humidity)
    response = urequests.get(url)
    if response.status_code < 400:
        print('Webhook invoked')
    else:
        print('Webhook failed')
        raise RuntimeError('Webhook failed')


def deepsleep():
    print('Going into deepsleep for {seconds} seconds...'.format(
        seconds=config.LOG_INTERVAL))
    rtc = machine.RTC()
    rtc.irq(trigger=rtc.ALARM0, wake=machine.DEEPSLEEP)
    rtc.alarm(rtc.ALARM0, config.LOG_INTERVAL * 1000)
    machine.deepsleep()


def run():
    try:
        temperature, humidity = get_temperature_and_humidity()
        print('Temperature = {temperature}, Humidity = {humidity}'.format(
            temperature=temperature, humidity=humidity))
        connect_wifi()
        temperature, humidity = get_temperature_and_humidity()
        log_data(temperature, humidity)
    except Exception as exc:
        sys.print_exception(exc)
        show_error()

    if not is_debug():
        deepsleep()


run()
```

Config.py

```python
WIFI_SSID = 'your SSID'
WIFI_PASSWORD = 'your Wi-Fi password'
LED_PIN = 2  # D4
DEBUG_PIN = 14  # D5
DHT22_PIN = 4  # D2
FAHRENHEIT = False
WEBHOOK_URL =
'https://api.thingspeak.com/update?api_key=IQBL4LHQIQ84YH57&field1={temperature}&field2={humidity}'
LOG_INTERVAL = 60
```

RESULT: