

SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES

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ASSIGNMENT 2

Bulid a python code, assume u get temperature and humidity values and write a condition to continuously detect alarm in case of high temperature

CODE:

```
#import standard python modules.
```

```
import time
```

```
import Adafruit_DHT
```

```
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'
```

```
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')

        time.sleep(DHT_READ_TIMEOUT)
```