

ASSIGNMENT - 2

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 alarm in case of high temperature.

CODE

```
from machine import Pin
from time import sleep
import dht

sensor = dht.DHT22(Pin(12))
buzzer = Pin(13, Pin.OUT)

while True:
    try:
        sleep(2)
        sensor.measure()
        temp = sensor.temperature()
        if temp > 40:
            buzzer.on()
            print("TEMPERATURE ALERT")
        else:
            buzzer.off()
        hum = sensor.humidity()
        temp_f = temp * (9/5) + 32.0
        print("Temperature: %3.1f C" %temp)
        print("Temperature: %3.1f F" %temp_f)
        print("Humidity: %3.1f %% " %hum)

    except OSError as e:
        print('Failed to read sensor.')
```

INPUT

```
main.py  diagram.json
1  from machine import Pin
2  from time import sleep
3  import dht
4  |
5  sensor = dht.DHT22(Pin(12))
6  buzzer = Pin(13, Pin.OUT)
7
8  while True:
9      try:
10         sleep(2)
11         sensor.measure()
12         temp = sensor.temperature()
13         if temp > 40:
14             buzzer.on()
15             print("TEMPERATURE ALERT")
16         else:
17             buzzer.off()
18         hum = sensor.humidity()
19         temp_f = temp * (9/5) + 32.0
20         print('Temperature: %3.1f C' %temp)
21         print('Temperature: %3.1f F' %temp_f)
22         print('Humidity: %3.1f %%' %hum)
23     except OSError as e:
24         print('Failed to read sensor.')
```

OUTPUT

