Assignment 2: 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

CODE

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# SHT25

# This code is designed to work with the SHT25\_I2CS I2C Mini Module available from ControlEverything.com.

# https://www.controleverything.com/content/Humidity?sku=SHT25\_I2CS#tabs-0-product\_tabset-2</p><p>import smbus

import time</p><p># Get I2C bus

bus = smbus.SMBus(1)</p><p># SHT25 address, 0x40(64)

# Send temperature measurement command

# 0xF3(243) NO HOLD master

bus.write\_byte(0x40, 0xF3)</p><p>time.sleep(0.5)</p><p># SHT25 address, 0x40(64)

# Read data back, 2 bytes

# Temp MSB, Temp LSB

data0 = bus.read\_byte(0x40)

data1 = bus.read\_byte(0x40)</p><p># Convert the data

temp = data0 \* 256 + data1

cTemp= -46.85 + ((temp \* 175.72) / 65536.0)

fTemp = cTemp \* 1.8 + 32</p><p># SHT25 address, 0x40(64)

# Send humidity measurement command

# 0xF5(245) NO HOLD master

bus.write\_byte(0x40, 0xF5)</p><p>time.sleep(0.5)</p><p># SHT25 address, 0x40(64)

# Read data back, 2 bytes

# Humidity MSB, Humidity LSB

data0 = bus.read\_byte(0x40)

data1 = bus.read\_byte(0x40)</p><p># Convert the data

humidity = data0 \* 256 + data1

humidity = -6 + ((humidity \* 125.0) / 65536.0)</p><p># Output data to screen

print "Relative Humidity is : %.2f %%" %humidity

print "Temperature in Celsius is : %.2f C" %cTemp

print "Temperature in Fahrenheit is : %.2f F" %fTemp</p>