

## ASSIGNMENT – 2

### PYTHON PROGRAMMING

Assignment Date	<i>30 September 2022</i>
Student Name	<i>Yuvan Shankar Raja.M.G</i>
Student Roll Number	<i>410819106005</i>
Maximum Marks	<i>2 Marks</i>

#### Question-1:

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.

#### Solution :

```
import time
import board
import adafruit_dht
import psutil
# We first check if a libgpiod process is running. If yes, we kill it
!
for proc in psutil.process_iter():
    if proc.name() == 'libgpiod_pulsein' or proc.name() == '
libgpiod_pulsei':
        proc.kill()
sensor = adafruit_dht.DHT11(board.D23)
while True:
    try:
        temp = sensor.temperature
        humidity = sensor.humidity
        print("Temperature: {}*C   Humidity: {}% ".format(temp,
humidity))
    except RuntimeError as error:
        print(error.args[0])
        time.sleep(2.0)
        continue
    except Exception as error:
        sensor.exit()
        raise error
        time.sleep(2.0)
```

## Output:

```
1 import time
2 import board
3 import adafruit_dht
4 import psutil
5
6 # We first check if a libgpiod process is running. If yes, we kill it!
7 for proc in psutil.process_iter():
8     if proc.name() == 'libgpiod_pulsein' or proc.name() == 'libgpiod_pulsei':
9         proc.kill()
10
11 sensor = adafruit_dht.DHT11(board.D23)
12
13 while True:
14     try:
15         temp = sensor.temperature
16         humidity = sensor.humidity
17         print("Temperature: {}°C Humidity: {}% ".format(temp, humidity))
18     except RuntimeError as error:
19         print(error.args[0])
20         time.sleep(2.0)
21         continue
22     except Exception as error:
23         sensor.exit()
24         raise error
25
26     time.sleep(2.0)
```

Shell

`> python3 DHT2.py`

`>>> %Run DHT2.py`

```
Temperature: 24°C Humidity: 64%
Temperature: 24°C Humidity: 64%
A full buffer was not returned. Try again.
Temperature: 24°C Humidity: 64%
Temperature: 24°C Humidity: 64%
Temperature: 24°C Humidity: 64%
Checksum did not validate. Try again.
Temperature: 24°C Humidity: 64%
Temperature: 24°C Humidity: 64%
Temperature: 24°C Humidity: 64%
```