ASSIGNMENT – 2

PYTHON PROGRAMMING

Assignment Date	*30 September 2022*
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Maximum Marks	2 Marks

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:

```
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)
```

Shell

```
>>> %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%
```