

### DEVELOPING PYTHON SCRIPT

|              |  |
|--------------|--|
| Team ID      | PNT2022TMID53651   |
| Project Name | Project – Industry Specific Intelligent Fire Management system |

- 1) OPEN ANY PYTHON IDE AND INSTALL pip install ibmiotf AND GENERATE THE CODE USING SUITABLE LIBRARIES.

```
ibm_weather_monitoring.py
1 import time
2 import sys
3 import ibmiotf.application
4 import ibmiotf.device
5 import random
6
```

- 2) PROVIDE THE CREDENTIALS ACQUIRED FROM THE IOT PLATFORM

```
7 #Provide your IBM Watson Device Credentials
8 organization = "j0mda0"
9 deviceType = "Weather_monitoring_Device"
0 deviceId = "weather_today"
1 authMethod = "token"
2 authToken = "1@2@3@4@"
3
```

- 3) RUN THE SCRIPT IN THE PYTHON IDE

```
ibm_weather_monitoring.py
33 #.....
34
35 except Exception as e:
36     print("Caught exception connecting device: %s" % str(e))
37     sys.exit()
38
39 # Connect and send a datapoint "hello" with value "world" into the cloud as an event of type "greeting" 10 times
40 deviceCli.connect()
41
42 while True:
43     #Get Sensor Data from DHT11
44
45     data={"d":{"temperature":temp,'pulse':pulse,'oxygen':oxygen,'latitude':latitude,'longitude':longitude}}
46     #print data
47
48     def myOnPublishCallBack():
49         print("Published Temperature = %s C" %temp , "Humidity = %s %" %pulse)
50
51     success=deviceCli.publishEvent("IotSensor", "json", data, qos=0, on_publish=myOnPublishCallBack)

```

PROBLEMS   OUTPUT   **TERMINAL**   DEBUG CONSOLE

```
Published Temperature = 28 C Humidity = 3 %
Published Temperature = 28 C Humidity = 3 %
Published Temperature = 28 C Humidity = 3 %
Published Temperature = 28 C Humidity = 3 %
Published Temperature = 28 C Humidity = 3 %
2022-11-11 15:10:11,987   ibmiotf.device.Client   INFO   Connected successfully: d:j0mda0:Weather_monitoring_Device:weather_today
```

4) CLEARLY IT IS SHOWN THAT IT IS CONNECTED TO THE IBM CLOUD PLATFORM.

```
Published Temperature = 28 C Humidity = 3 %  
Published Temperature = 28 C Humidity = 3 %  
2022-11-11 15:10:11,987 ibmiotf.device.Client INFO Connected successfully; d:j0mda0:Weather_monitoring_Device:weather_today
```

Search by Device ID

Device Simulator

| Device ID | Status       | Device Type    | Class ID | Date Added            | Descriptive Location |
|-----------|--------------|----------------|----------|-----------------------|----------------------|
| 1234      | Disconnected | Weather_Device | Device   | Nov 11, 2022 11:35 AM |                      |

Identity

Device Information

Recent Events

State

Logs

The recent events listed show the live stream of data that is coming and going from this device.

| Event   | Value                            | Format | Last Received     |
|---------|----------------------------------|--------|-------------------|
| event_1 | {"TEMPERATURE":43,"HUMIDITY":14} | json   | a few seconds ago |
| event_1 | {"TEMPERATURE":12,"HUMIDITY":9}  | json   | a few seconds ago |
| event_1 | {"TEMPERATURE":46,"HUMIDITY":39} | json   | a few seconds ago |
| event_1 | {"TEMPERATURE":1,"HUMIDITY":82}  | json   | a few seconds ago |
| event_1 | {"TEMPERATURE":48,"HUMIDITY":88} | json   | a few seconds ago |

1 Simulation running

