

Prerequisite

Software (python 3.7.0)

Date	01 November 2022
Team ID	PNT2022TMID36144
Project Name	Smart Farmer- IOT Enabled Smart Farming Application

TASK:

IDLE python 3.7.0

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tem.py - C:\Users\sachl\Downloads\lib\tem.py (3.7.0)
File Edit Format Run Options Window Help
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "u1v22a"
deviceType = "raspberrypi"
deviceId = "sk40"
authMethod = "token"
authToken = "110319106040"

def myCommandCallback(cmd):
    print ("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status== "motorton":
        print ("Motor is on")
    elif status == "motortoff":
        print ("Motor is off")
    else:
        print ("Please send proper command")

try:
    deviceOptions = {"org": organization, "type": deviceType, "id": deviceId,
                    "auth-method":authMethod, "auth-token":authToken}
    deviceCli= ibmiotf.device.Client (deviceOptions)

    except Exception as e:
        print ("Caught exception connecting device: %s" % str(e))
        sys.exit()

deviceCli.connect()
while True:
    temp=random.randint (-10,100)
    Humid=random.randint (40,100)
    soilmoisture=random.randint (10,100)
    Windspeed_kmh=random.randint (15,60)
    data = {"Temp": temp, "Humid": Humid, "soilmoisture": soilmoisture, "Windspeed_kmh": Windspeed_kmh}
    def myonPublishCallback():
        print ("Published Temperature = %s C" % temp, "Humidity = %s %s" % Humid, "soilmoisture = %s" % soilmoisture, "Windspeed_kmh = %s NTU" % Windspeed_kmh, "to IBM Watson")
    success = deviceCli.publishEvent("IoTsensor", "json", data, qos=0, on_publish=myonPublishCallback)
    if not success:
        print("Not connected to IOT")
    time.sleep (10)
    deviceCli.commandCallback = myCommandCallback
deviceCli.disconnect()
```

```
"Python 3.7.0 Shell"
File Edit Shell Debug Options Window Help
Python 3.7.0 (tags/v3.7.0:1bfecc099, Jun 27 2019, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\sachl\Downloads\lib\tem.py =====
2022-11-19 08:13:36.193 ibmiotf.device.Client INFO Connected successfully: d1w1v28ercasberrypi:sk40
Published Temperature = 55 C Humidity = 92 % soilmoisture = 70 Windspeed_kmh = 30 NTU to IBM Watson
|
```