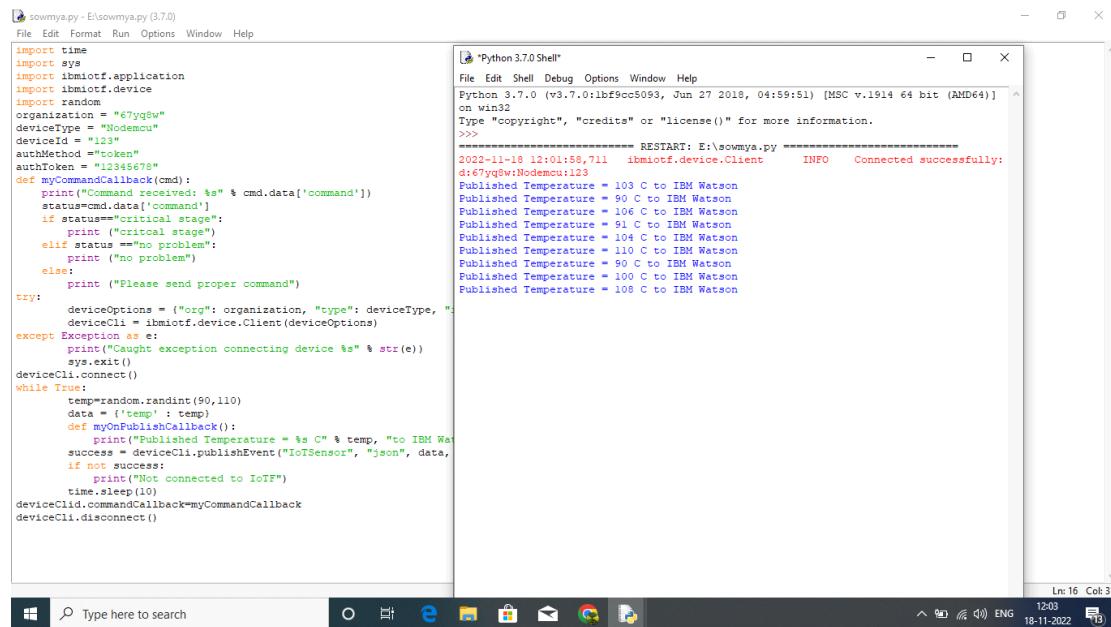


DEVELOP A PYTHON SCRIPT

Date	14 November 2022
Team ID	PNT2022TMID13542
Project Name	Hazardous Area Monitoring for industrial power plant by IoT
Maximum Marks	4 Marks

Hazardous Area Monitoring for Industrial Power Plant by IoT

Python code :



```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
organization = "67yq8w"
deviceType = "NodeMCU"
deviceId = "12345678"
authMethod = "token"
authToken = "12345678"
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="critical stage":
        print ("critical stage")
    elif status == "problem":
        print ("no problem")
    else:
        print ("Please send proper command")
try:
    deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "authMethod": authMethod, "authToken": 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(90,110)
    data = {'temp': temp}
    def myOnPublishCallback():
        print("Published Temperature = %s C" % temp, "to IBM Watson")
    success = deviceCli.publishEvent("IoTSensor", "json", data, myOnPublishCallback)
    if not success:
        print("Error connecting to IoT")
    time.sleep(10)
deviceCli.commandCallback=myCommandCallback
deviceCli.disconnect()
```

Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\sowmya.py ======
2022-11-18 12:01:58,711 ibmiotf.device.Client INFO Connected successfully:
d:67yq8w:NodeMCU123
Published Temperature = 103 C to IBM Watson
Published Temperature = 90 C to IBM Watson
Published Temperature = 106 C to IBM Watson
Published Temperature = 91 C to IBM Watson
Published Temperature = 104 C to IBM Watson
Published Temperature = 110 C to IBM Watson
Published Temperature = 90 C to IBM Watson
Published Temperature = 100 C to IBM Watson
Published Temperature = 108 C to IBM Watson

IBM Watson Connection :

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67yq@iinternetoftthings.ibmcloud.com/dashboard/devices/browse

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IBM Watson IoT Platform

vikrampraveenapv65@gmail.com ID: 67yqBw

Browse Action Device Types Interfaces Add Device

Device ID Status Device type Class ID Date Added

123 Disconnected Nodemcu Device 13 Nov 2022 12:23 PM

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
eventflow	{"temperature":98}	json	a few seconds ago
eventflow	{"temperature":90}	json	a few seconds ago
eventflow	{"temperature":92}	json	a few seconds ago
eventflow	{"temperature":96}		1 Simulation running
eventflow	{"temperature":91}		

Type here to search

WhatsApp Image...jpeg WhatsApp Image...jpeg WhatsApp Image...jpeg WhatsApp Image...jpeg WhatsApp Image...jpeg WhatsApp Image...jpeg Show all

12:58 ENG 13-11-2022

Detailed description: This screenshot shows a web browser window for the IBM Watson IoT Platform. The main content area displays a device dashboard for a device with ID 123, which is currently disconnected. The device is of type Nodemcu. The dashboard includes tabs for Identity, Device Information, Recent Events, State, and Logs. The Recent Events tab is active, showing five entries of eventflow data. Each entry contains a JSON object with a temperature value (e.g., {"temperature":98}). The last received time for these events is noted as 'a few seconds ago'. Below the event table, there is a note stating 'The recent events listed show the live stream of data that is coming and going from this device.' At the bottom of the dashboard, there are five thumbnail images labeled 'WhatsApp Image...jpeg' followed by a 'Show all' button. The browser's address bar shows the URL '67yq@iinternetoftthings.ibmcloud.com/dashboard/devices/browse'. The operating system taskbar at the bottom includes icons for File Explorer, Edge, File, Mail, and Google Chrome, along with system status indicators like battery level and network signal.