

Develop A Python Script

Team ID : PNT2022TMID29941

IBM ID : IBM-Project-31889-1660205917

PROJECT TITLE: IOT Based Safety gadget For child Safety Monitoring & Notification

Goal:

To develop the python code to publish and subscribe to the commands from the IBM cloud.

Code:

```
#IBM Watson IOT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
ms=0
status='light off'
myConfig = {
"identity": {
"orgId": "6hr21b",
"typeId": "pythonbulldcode",
"deviceId":"pythonbulldcode"
PNT2022TMID14459
SmartFarmer – IoT Enabled Smart
Farming Application},
"auth": {
"token": "1234567890"
}
}
def myCommandCallback(cmd):
print("Message received from IBM IoT Platform: %s" %
cmd.data['command'])
m=cmd.data['command']
if(m=="MOTOR ON"):
print("MOTOR IS ON")
status='motor on'
myData={'temperature':temp,
'humidity':hum,'soilmoisture':sm_percentage,'status':status}
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
```

```

print("Published data Successfully: %s", myData)
time.sleep(2)
elif(m=="MOTOR OFF"):
print("MOTOR IS OFF")status='motor off'
myData={'temperature':temp,'humidity':hum,'soilmoisture':sm_percentage,'status':status}
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
print("Published data Successfully: %s", myData)
time.sleep(2)
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
while True:
temp=random.randint(-20,125)
hum=random.randint(0,100)
soilmoisture=random.randint(0,1023)
sm_percentage=(soilmoisture/1023)*100
sm_percentage=int(sm_percentage)
myData={'temperature':temp, 'humidity':hum,'soilmoisture':sm_percentage}
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
print("Published data Successfully: %s", myData)
client.commandCallback = myCommandCallback
time.sleep(2)time.sleep(2)
client.disconnect()

```

python code:

```
Activities Text Editor Nov 13 3:32 PM Develop a python... 100 %
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#IBM Watson IoT Platform
#pip install wiotp.sdk
import wiotp.sdk.device
import time
import random

ns=0
status='light off'
myConfig = {
    "identity": {
        "orgId": "6hr21b",
        "typeId": "pythonbuldcode",
        "deviceId": "pythonbuldcode"
    },
    "auth": {
        "token": "1234567890"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    mycmd.data['command']
    if(cmd=="MOTOR ON"):
        print("MOTOR IS ON")
        status='motor on'
        myData={'temperature':temp, 'humidity':hum, 'soilmoisture':sn_percentage, 'status':status}
        client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
        print("Published data Successfully: %s" % myData)
        time.sleep(2)
    elif(cmd=="MOTOR OFF"):
        print("MOTOR IS OFF")
        status='motor off'
        myData={'temperature':temp, 'humidity':hum, 'soilmoisture':sn_percentage, 'status':status}
        client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
        print("Published data Successfully: %s" % myData)
        time.sleep(2)
    client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
    client.connect()
    while True:
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        hum=random.randint(0,100)
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        sn_percentage=(soilmoisture/1023)*100
        sn_percentage=int(sn_percentage)
        myData={'temperature':temp, 'humidity':hum, 'soilmoisture':sn_percentage}
        client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
        print("Published data Successfully: %s" % myData)
        client.commandCallback = myCommandCallback
        time.sleep(2)
    client.disconnect()
```

Watson connectio:

IBM Watson IoT Platform

kiruthikas028.ece@dgct.ac.in ID: 6hr21b

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>	<input checked="" type="checkbox"/>	pythonbuldcode	Connected	pythonbuldcode	Device	Nov 13, 2022 3:14 PM	→ ...

Identity

Device Information

Recent Events

State

Logs

Device ID

pythonbuldcode

Device Type

pythonbuldcode

Date Added

Nov 13, 2022 3:14 PM

Added By

kiruthikas028.ece@dgct.ac.in

Connection Status

Connected

Connection Time: Nov 13, 2022 3:38 PM

Client Address: 50.31.197.64 Insecure

>	<input type="checkbox"/>	sprint003	Disconnected	sprint003	Device	Nov 13, 2022 12:38 PM	→ ...
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