

## Project Development -Delivery of Sprint-1

Date	29 Oct 2022
Team ID	PNT2022TMID26544
Project Name	Project -Smart farmer-IOT enabled smart Farming Application

### Python Code:

```
import wiotp.sdk.device
import time
import os
import datetime
import random
myconfig = {
    "identity": {
        "orgId": "9sg3zy",
        "typeId": "NodeMCU",
        "deviceId": "12345"
    },
    "auth": {
        "token": "IHk35N47uKF_vjA+C)"
    }
}
client = wiotp.sdk.device.DeviceClient(config=myconfig, logHandlers=None)
client.connect()
def myCommandCallback(cmd):
```

```

    print("Message received from IBM IoT platform: %s" %
cmd.data['command'])

    m=cmd.data['command']

    if(m=="motoron"):

        print("motor is switched on")

    elif(m=="motoroff"):

        print("motor is switched OFF")

    print(" ")

while True:

    soil=random.randint(0,100)

    temp=random.randint(-20,125)

    hum=random.randint(0,100)

    myData={'soil_moisture':soil, 'temperature' :temp, 'humidity' :hum}

    client.publishEvent(eventId="status", msgFormat="json", data=myData,
qos=0, onPublish=None)

    print("Published data Successfully: %s", myData)

    time.sleep(2)

    client.myCommandCallback = myCommandCallback

client.disconnect ()

```

```
ibm codepy - D:\ibm2\ibm codepy (3.10.0)
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import wiotp.sdk.device
import time
import os
import datetime
import random

myconfig = {
    "identity": {
        "orgId": "5eg3zy",
        "typeId": "NodeMCU",
        "deviceId": "12345"
    },
    "auth": {
        "token": "IHk35N47uKF_vjA+C)"
    }
}

client = wiotp.sdk.device.DeviceClient(config=myconfig, logHandlers=None)
client.connect()

def myCommandCallback(cmd):
    print("Message received from IBM IoT platform: %s" % cmd.data['command'])
    mcmd.data['command']
    if(m=="motoron"):
        print("motor is switched on")
    elif(m=="motoroff"):
        print("motor is switched OFF")
    print(" ")

while True:
    soil=random.randint(0,100)
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'soil_moisture':soil, 'temperature':temp, 'humidity':hum}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    time.sleep(2)
    client.myCommandCallback = myCommandCallback
client.disconnect()
```

## Running of Python Code

```
Published data Successfully: %s {'temperature': 122, 'humidity': 88, 'soilmoisture': 11, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': -17, 'humidity': 4, 'soilmoisture': 97, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 29, 'humidity': 36, 'soilmoisture': 96, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 81, 'humidity': 68, 'soilmoisture': 90, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 10, 'humidity': 4, 'soilmoisture': 3, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 32, 'humidity': 53, 'soilmoisture': 35, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': -17, 'humidity': 99, 'soilmoisture': 81, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 116, 'humidity': 58, 'soilmoisture': 52, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 21, 'humidity': 4, 'soilmoisture': 77, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}

Published data Successfully: %s {'temperature': 59, 'humidity': 13, 'soilmoisture': 36, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': -20, 'humidity': 40, 'soilmoisture': 54, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': -9, 'humidity': 74, 'soilmoisture': 24, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 27, 'humidity': 96, 'soilmoisture': 17, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 18, 'humidity': 76, 'soilmoisture': 96, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 28, 'humidity': 69, 'soilmoisture': 94, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
Published data Successfully: %s {'temperature': 6, 'humidity': 72, 'soilmoisture': 98, 'status': 'motor off', 'api_temperature': 298.14, 'api_pressure': 1014, 'api_humidity': 94, 'api_weather_description': 'light intensity drizzle'}
```