

SPRINT DELIVERY – 1

Team ID	PNT2022TMID54001
Project Name	SmartFarmer - IoT Enabled Smart Farming Application
Date	17 November 2022

SPRINT 1- PYTHON PROGRAM TO GET CONNECTED WITH IBM IOT WATSON PLATFORM:

```
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myConfig = {
    "identity": {
        "orgId": "9ababfa",
        "typeId": "ESP32",
        "deviceId": "1234"
    },
    "auth": {
        "token": "12345678"
    }
}

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=="motoroft"):
        print("motor is switched off")
    print("\n")
    while True:
        soil=random.randint(18,24)
        temp=random.randint(21,37)
        hum=random.randint(60,80)
        soil_ph=random.randint(5,10)
        Co2=random.randint(900,1300)
        myData={'soil_moisture':soil,'temperature':temp,'humidity':hum,'soil_ph':soil_ph,'Co2':Co2}
        client.publishEvent(eventId="status",myFormat="json",data=myData ,qos=0,onPublish=None)
        print("published data successfully: %s",myData)
        time.sleep(5)
    client.commandCallback=myCommandCallback
    client.disconnect()
```

```
Python 3.6.2 Shell
File Edit Shell Debug Options Window Help
Python 3.6.2 (tags/v3.6.2:5f33365, Jul 9 2017, 04:14:34) [AMD64 (x64)] on win32
Type "copyright", "credits()" or "license()" for more information.
>>>
===== RESTART: C:\Users\kamaleah\Downloads\ibm_g.py =====
2022-11-19 22:09:01.008 winstp.sdk.device.client.DeviceClient INFO Connected successfully: d:902bfc:ESP32:1234published data successfully: %s
('soil_moisture': 24, 'temperature': 29, 'humidity': 63, 'soil_ph': 5, 'co2': 1094)
published data successfully: %s ('soil_moisture': 26, 'temperature': 26, 'humidity': 66, 'soil_ph': 5, 'co2': 1235)
```

