SPRINT-1
Python Code

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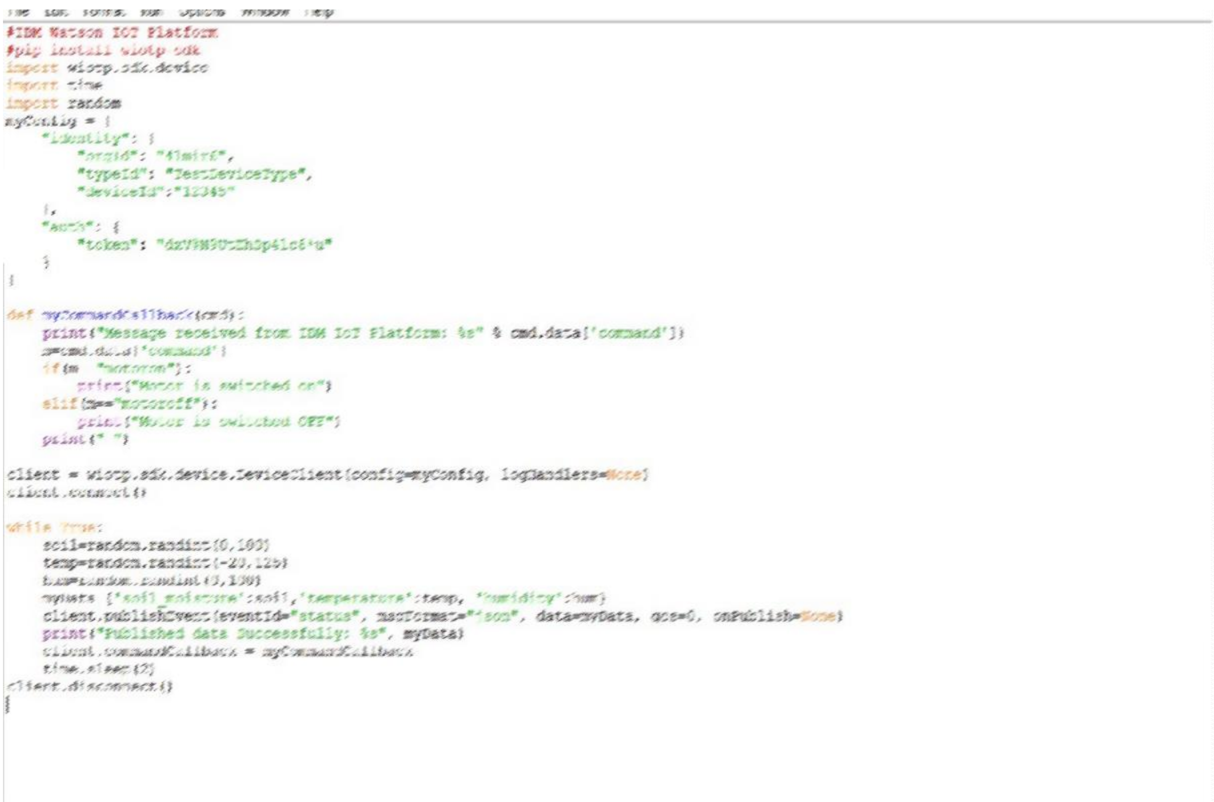
Project name	SmartFarming- IoT Enabled Smart Farming Application



```python
#IBM Watson IOT Platform
#pip install wiotp sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "41mir6",
        "typeId": "TestDeviceType",
        "deviceId":"12345"
    },
    "auth": {
        "token": "dzV9N9UtZh3p4lc6+u"
    }
}

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(" ")

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

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)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

Process of code :

- Open python idle and import wiotp.sdk.device , time , random libraries
- In myConfig function we have given all the credential details about user device
- In myCommandCallback function message will be received from user device, this function will decide the action wheather the motor should be on or off.
- Deviceclient from wiotp.sdk.device library is passes myConfig function as parameter into config attribute and taken in variable named as client.
- At while loop statement the values of soil, temperature, humidity are taken and these values will be sent through the message to the user.
- Then the user will command the device to make motor on or off through the message.
- Then the action will be done by the device and the device disconnected.