SPRINT-3

Date	11 November 2022
Team ID	PNT2022TMID36188
Project Name	IOT basedSmart Crop Protection For Agriculture
Maximum Marks	20 Marks

Python script:

```python
import wiotp.sdk.device

import time

import sys

import datetime

import random

 #Provide your IBM Watson Device Credentials
"orgId": "jfe9dc",

"typeId": "PNT2022TMID36188",
```
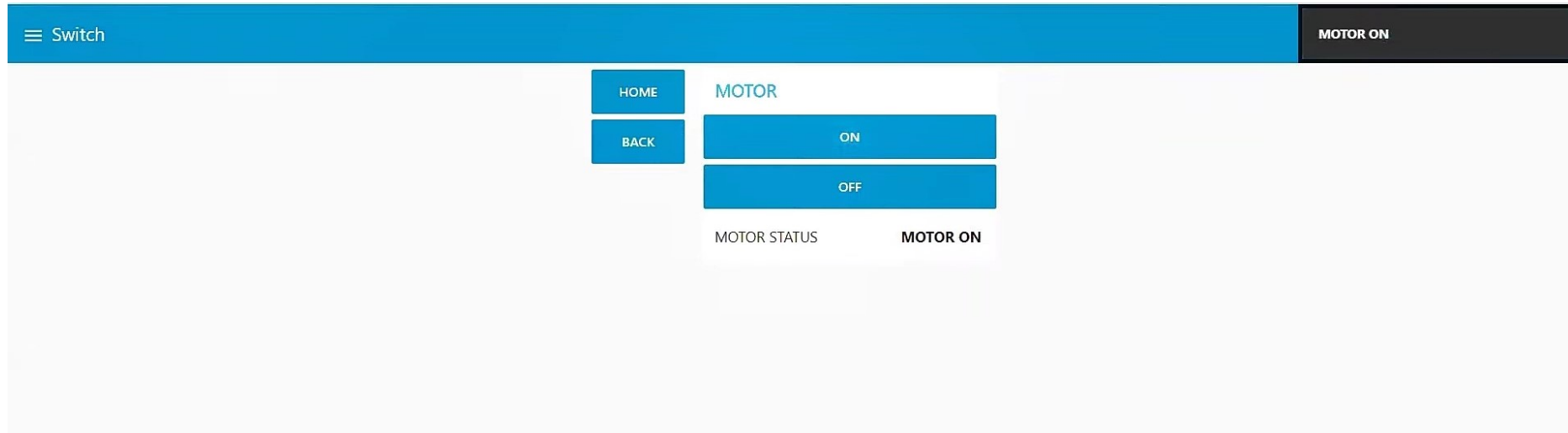
```python
"deviceId": "1358",
"auth token": "B1byGlQsCsq8*snbsU"
client = wiotp.sdk.device.DeviceClient (config=myConfig,logHandlers=None)
client.connect ()
def myCommandCallback (cmd) :
 print ("Message received from IBM IoT Platform: %s" %
cmd.data['command']) m=cmd.data['command']
if (m=="motoron"):
 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)
```
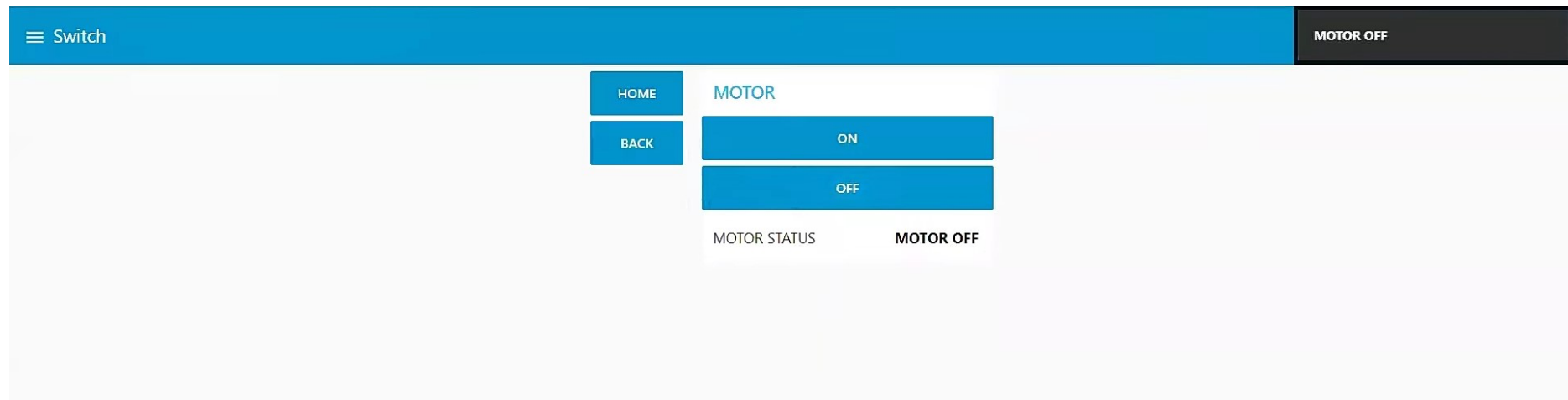
```python
myData={'soil moisture': soil, 'temperature':temp, 'humidity':hum}
client.publishEvent (eventId="status", msgFormat="json", data=myData,
qos=0 , onPublish=None)
print ("Published data Successfully: %s", myData)
time.sleep (2)
client.commandCallback = myCommandCallback
client.disconnect ()
```

```python
import wiotp.sdk.device
import time
import os
import datetime
import random
myConfig = {
 "orgId": "jfe9dc",
 "typeId": "PNT2022TMID36188",
 "deviceId": "1358",
 "auth"}
    "token": "BlbyGlQsCsq8*snbsU"
}}
client = wiotp.sdk.device.DeviceClient (config=myConfig,logHandlers=None)
client.connect ()
def myCommandCallback (cmd) :
 print("command recevied: %s" % cmd.data
if cmd.data ['command']== 'MOTOR ON':
 print("MOTOR ON IS RECEIVED")
elif cmd.data['command']== 'MOTOR OFF':
 print(" MOTOR OFF IS RECEIVED")
    if cmd.command == " set interval":
    if 'interval' not in  cmd.data:
    print(" Error – command is missing required information: 'interval'")
    else:
    interval = cmd.data['interval']
elif  cmd.command == "print":
if ' message' not in cmd.data:
 print("Error – command is missing required information: 'message'")
else:
output=cmd.data['message']
 print (output)
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.commandCallback = myCommandCallback
client.disconnect ()
```

OUTPUT:

| ≡ Switch | | MOTOR ON |

HOME

BACK

MOTOR

ON

OFF

MOTOR STATUS   **MOTOR OFF**

Python 3.7.4 Shell

File   Edit   Shell   Debug   Options   Window   Help

```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul  8 2019, 19:29:22) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
======== RESTART: E:\SmartAgriculture\Git Uploads\SmartAgriculture.py ========
2020-06-18 19:16:09,447    ibmiotf.device.Client       INFO    Connected successfully: d:fhfvz4:SMtr:0002
Command received: {'command': 'MOTOR ON'}
MOTOR ON IS RECEIVED
Command received: {'command': 'MOTOR OFF'}
MOTOR OFF IS RECEIVED
```