## **SPRINT 1**

## Sensors and Wi-Fi module with python code

Date	30 October 2022
Team ID	PNT2022TMID49483
Project Name	Smart Farmer IoT enabled smart farming

```
#IBM Watson IOT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
  "identity": {
    "orgId": "0lz4tn",
    "typeId": "NodeMCU",
    "deviceId":"24680"
  },
  "auth": {
    "token": "1133557799"
  }
}
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:
  temp=random.randint(0,100)
  hum=random.randint(0,100)
  soil=random.randint(0,100)
  myData={'Temperature':temp,
      'Humidity':hum,
    'SoilMoisture':soil}
  client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
  print("Published data Successfully: %s", myData)
  if(soil<20):
    print("Less moisture is detected")
  else:
    print("Moisture is sufficient")
  time.sleep(2)
  client.commandCallback = myCommandCallback
client.disconnect()
```

- 0 X \*Python 3.7.0 Shell\*

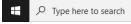
File Edit Shell Debug Options Window Help

Python 3.7.0 (v3.7.0:lbf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32

Type "copyright", "credits" or "license()" for more information. ===== RESTART: C:\Users\Admin\Desktop\lakshya\ibm-mit.py ==== Published data Successfully: %s ('Temperature': 8, 'Humidity': 75, 'SoilMoisture': 56) Connected successfully: d:01z4tn:NodeMCU:24680 Moisture is sufficient Published data Successfully: %s {'Temperature': 13, 'Humidity': 69, 'SoilMoisture': 27} Moisture is sufficient Published data Successfully: %s {'Temperature': 95, 'Humidity': 77, 'SoilMoisture': 28} Moisture is sufficient Published data Successfully: %s {'Temperature': 6, 'Humidity': 60, 'SoilMoisture': 55} Moisture is sufficient
Published data Successfully: %s ('Temperature': 19, 'Humidity': 28, 'SoilMoisture': 73) Moisture is sufficient

Published data Successfully: %s {'Temperature': 95, 'Humidity': 40, 'SoilMoisture': 51}

Moisture is sufficient Published data Successfully: %s {'Temperature': 96, 'Humidity': 45, 'SoilMoisture': 11} Less moisture is detected Published data Successfully: %s ('Temperature': 42, 'Humidity': 36, 'SoilMoisture': 6)
Less moisture is detected





















Ln: 5 Co