

DEVELOP THE PYTHON SCRIPT (DEVELOP A PYTHON SCRIPT)

Team ID	PNT2022TMID34718
Project Name	Industry-Specific Intelligent Fire Management System

Develop a python code for publishing random sensor data(Fire, Temperature, if required Humidity) to the IBM IoT Platform.

```
import time
```

```
import sys
```

```
import ibmiotf.application
```

```
import ibmiotf.device
```

```
import random
```

```
#Provide your IBM Watson Device Credentials
```

```
organization = "zoieul"
```

```
deviceType = "NodeMCU"
```

```
deviceId = "12345"
```

```
authMethod = "token"
```

```
authToken = "12345678"
```

```
# Initialize GPIO
```

```
def myCommandCallback(cmd):
```

```
    print("Command received: %s" % cmd.data['command'])
```

```
    status=cmd.data['command']
```

```
    if status=="lighton":
```

```
        print ("led is on")
```

```
    elif status == "lightoff":
```

```
        print ("led is off")
```

```
    else :
```

```
        print ("please send proper command")
```

```
try:
```

```
        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId,  
"auth-method": authMethod, "auth-token": authToken}  
        deviceCli = ibmiotf.device.Client(deviceOptions)  
        #.....
```

```
except Exception as e:
```

```
    print("Caught exception connecting device: %s" % str(e))  
    sys.exit()
```

```
# Connect and send a datapoint "hello" with value "world" into the cloud as an  
event of type "greeting" 10 times  
deviceCli.connect()
```

```
while True:
```

```
    #Get Sensor Data from DHT11
```

```
    temp=random.randint(90,110)
```

```
    Humid=random.randint(60,100)
```

```
    data = { 'temp' : temp, 'Humid': Humid }
```

```
    #print data
```

```
    def myOnPublishCallback():
```

```
        print ("Published Temperature = %s C" % temp, "Humidity = %s %%" %  
Humid, "to IBM Watson")
```

```
        success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,  
on_publish=myOnPublishCallback)
```

```
        if not success:
```

```
            print("Not connected to IoTf")
```

```
            time.sleep(10)
```

```
        deviceCli.commandCallback = myCommandCallback
```

```
# Disconnect the device and application from the cloud  
deviceCli.disconnect()
```