

## **Develop a python script**

<b>Project Name</b>	<b>Industry-specific intelligent fire management system</b>
<b>Team ID</b>	<b>PNT2022TMID50107</b>
<b>Date</b>	<b>17-Sep-2022</b>

### **Develop a python script:**

#### **Program:**

```
import time

import sys

import ibmiotf.application

import ibmiotf.device

import random

#Provide your IBM Watson Device Credentials

organization = "qo7yo9"

deviceType = "Temperature"

deviceId = "12345"

authMethod = "token"

authToken = "*b7czg15vpe"

# Initialize GPIO

def myCommandCallback(cmd):

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

    status=cmd.data['command']

    if status=="sprinkleron":
```

```

print ("Sprinkler is on")

elif status == "sprinkleroff":

print ("Sprinkler is off")

elif status == "exhaustfanon":

print ("Exhaust Fan ON")

elif status == "exhaustfanoff":

print ("Exhaust Fan OFF")

#print(cmd)

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(0,100)

flame_level=random.randint(0,100)

gas_level = random.randint(0,100)

data = { 'Temperature' : temp, 'Flame_Level' : flame_level, 'Gas_Level' :
gas_level }

#print data

def myOnPublishCallback():

print ("Published Temperature = %s C" % temp, "Flame_Level = %s %" %
flame_level,

"Gas_Level = %s %" %gas_level ,"to IBM Watson")

success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,

on_publish=myOnPublishCallback)

if not success:

print("Not connected to IoT")

time.sleep(1)

deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud

deviceCli.disconnect()
```