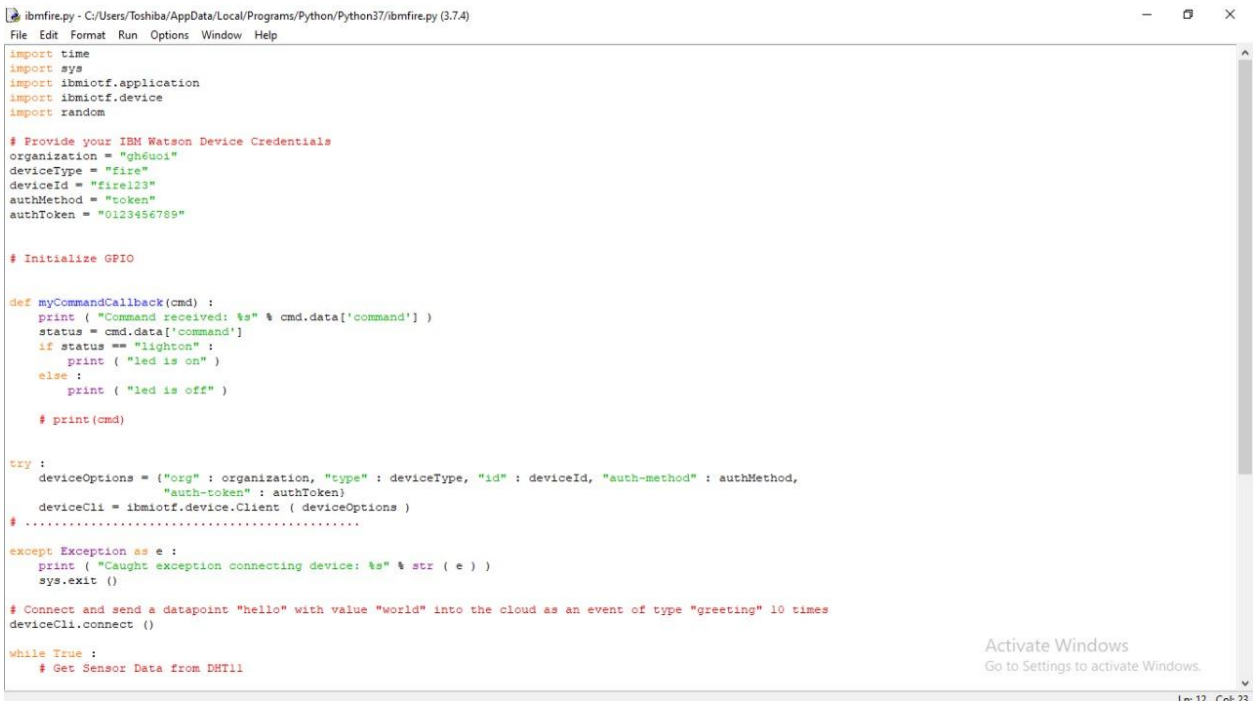
Sprint-3

Team ID : PNT2022TMID06928
Project Title : Industry-specific intelligent fire management system

CREATING A PYTHON SCRIPT AND INTERFACING WITH CLOUD-IOT PLATFORM



```
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 )
    gas = random.randint ( 60, 200 )
    flame = random.randint ( 60, 200 )

    data = {'temp' : temp, 'Gas' : gas,'Flame': flame}


    # print data
    def myOnPublishCallback() :
        print ( "Published Temperature = %s C" % temp, "Gas = %s %%" % gas, "Flame = %s %%" % flame, "to IBM Watson")


    success = deviceCli.publishEvent ( "IoTSensor", "json", data, qos = 0, on_publish = myOnPublishCallback )
    if not success :
        print ( "Not connected to IoTF" )
    time.sleep ( 1 )

    deviceCli.commandCallback = myCommandCallback

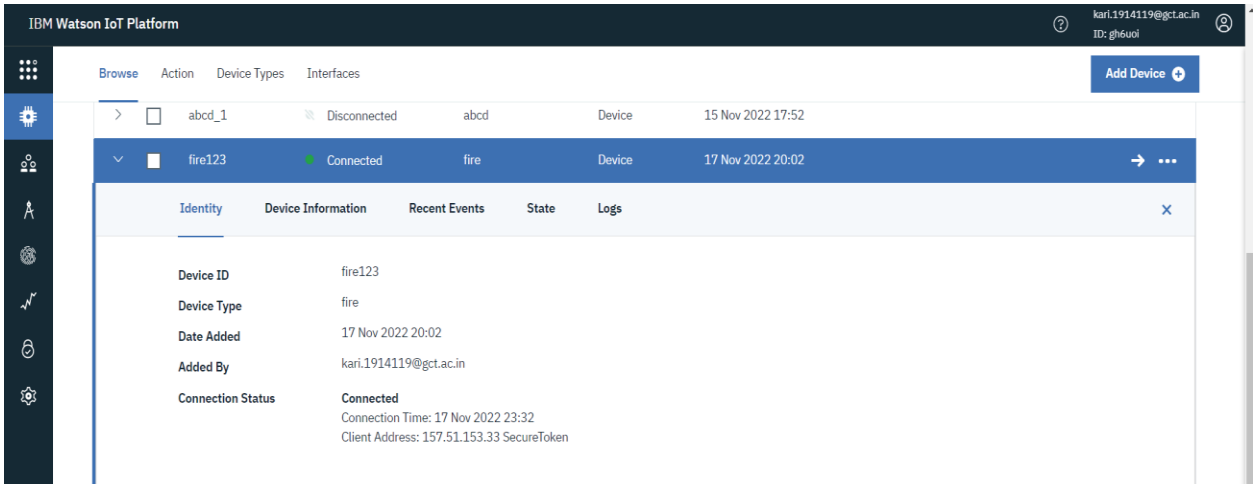
# Disconnect the device and application from the cloud
deviceCli.disconnect ()
```

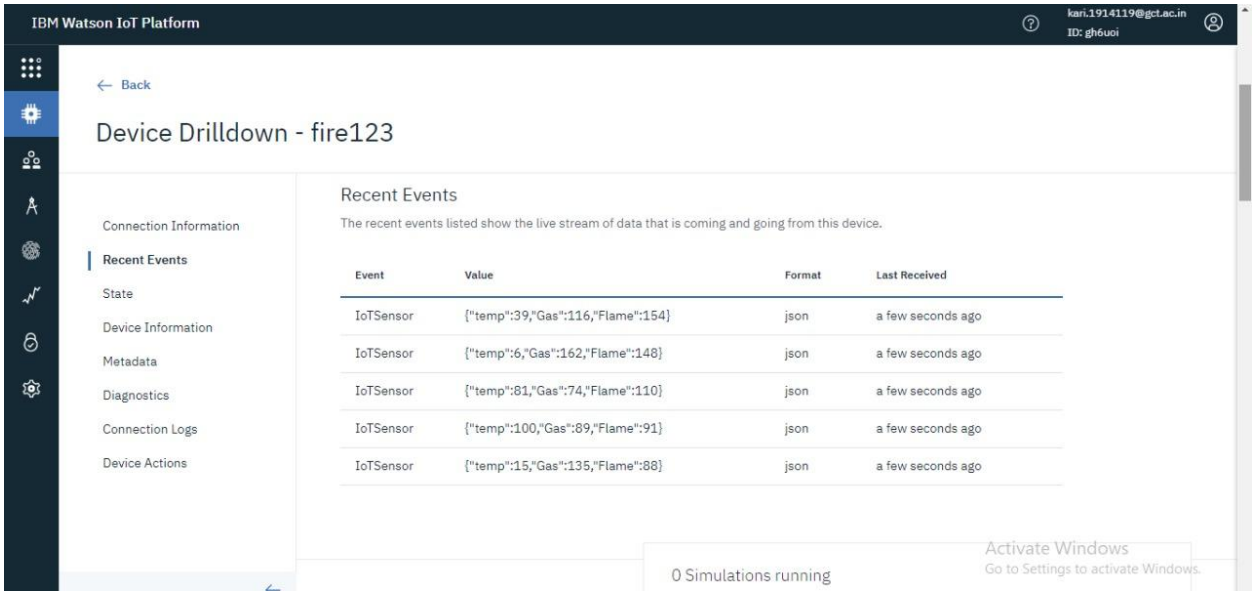

Ln: 12 Col: 23

Python 3.7.4 Shell

File Edit Shell Debug Options Window Help

```
Published Temperature = 12 C Gas = 74 % Flame = 96 % to IBM Watson
Published Temperature = 86 C Gas = 62 % Flame = 80 % to IBM Watson
Published Temperature = 6 C Gas = 103 % Flame = 104 % to IBM Watson
Published Temperature = 24 C Gas = 85 % Flame = 104 % to IBM Watson
Published Temperature = 59 C Gas = 68 % Flame = 156 % to IBM Watson
Published Temperature = 13 C Gas = 197 % Flame = 81 % to IBM Watson
Published Temperature = 73 C Gas = 155 % Flame = 121 % to IBM Watson
Published Temperature = 15 C Gas = 135 % Flame = 88 % to IBM Watson
Published Temperature = 100 C Gas = 89 % Flame = 91 % to IBM Watson
Published Temperature = 81 C Gas = 74 % Flame = 110 % to IBM Watson
Published Temperature = 6 C Gas = 162 % Flame = 148 % to IBM Watson
Published Temperature = 39 C Gas = 116 % Flame = 154 % to IBM Watson
Published Temperature = 66 C Gas = 172 % Flame = 167 % to IBM Watson
Published Temperature = 26 C Gas = 186 % Flame = 139 % to IBM Watson
Published Temperature = 60 C Gas = 173 % Flame = 84 % to IBM Watson
Published Temperature = 44 C Gas = 146 % Flame = 200 % to IBM Watson
Published Temperature = 19 C Gas = 144 % Flame = 149 % to IBM Watson
Published Temperature = 3 C Gas = 96 % Flame = 159 % to IBM Watson
Published Temperature = 3 C Gas = 178 % Flame = 65 % to IBM Watson
Published Temperature = 24 C Gas = 136 % Flame = 129 % to IBM Watson
Published Temperature = 75 C Gas = 81 % Flame = 185 % to IBM Watson
Published Temperature = 100 C Gas = 73 % Flame = 86 % to IBM Watson
Published Temperature = 81 C Gas = 66 % Flame = 102 % to IBM Watson
Published Temperature = 55 C Gas = 142 % Flame = 121 % to IBM Watson
Published Temperature = 83 C Gas = 81 % Flame = 101 % to IBM Watson
Published Temperature = 58 C Gas = 193 % Flame = 153 % to IBM Watson
Published Temperature = 49 C Gas = 106 % Flame = 163 % to IBM Watson
Published Temperature = 3 C Gas = 154 % Flame = 178 % to IBM Watson
Published Temperature = 42 C Gas = 120 % Flame = 180 % to IBM Watson
Published Temperature = 30 C Gas = 127 % Flame = 63 % to IBM Watson
Published Temperature = 8 C Gas = 110 % Flame = 100 % to IBM Watson
Published Temperature = 3 C Gas = 195 % Flame = 123 % to IBM Watson
Published Temperature = 48 C Gas = 85 % Flame = 115 % to IBM Watson
Published Temperature = 18 C Gas = 110 % Flame = 121 % to IBM Watson
Published Temperature = 71 C Gas = 138 % Flame = 148 % to IBM Watson
Published Temperature = 97 C Gas = 75 % Flame = 116 % to IBM Watson
Published Temperature = 43 C Gas = 89 % Flame = 126 % to IBM Watson
Published Temperature = 51 C Gas = 176 % Flame = 131 % to IBM Watson
Published Temperature = 86 C Gas = 115 % Flame = 82 % to IBM Watson
Published Temperature = 28 C Gas = 104 % Flame = 106 % to IBM Watson
Published Temperature = 44 C Gas = 109 % Flame = 109 % to IBM Watson
Published Temperature = 57 C Gas = 91 % Flame = 78 % to IBM Watson
Published Temperature = 57 C Gas = 79 % Flame = 92 % to IBM Watson
```





PYTHON CODE:

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

# Provide your IBM Watson Device Credentials
organization = "gh6uoi"
deviceType = "fire"
deviceId = "fire123"
```

```
authMethod = "token"
authToken = "0123456789"


# Initialize GPIO


def myCommandCallback(cmd) :
    print ( "Command received: %s" % cmd.data['command'] )
    status = cmd.data['command']
    if status == "lighton" :
        print ( "led is on" )
    else :
        print ( "led is off" )

    # print(cmd)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