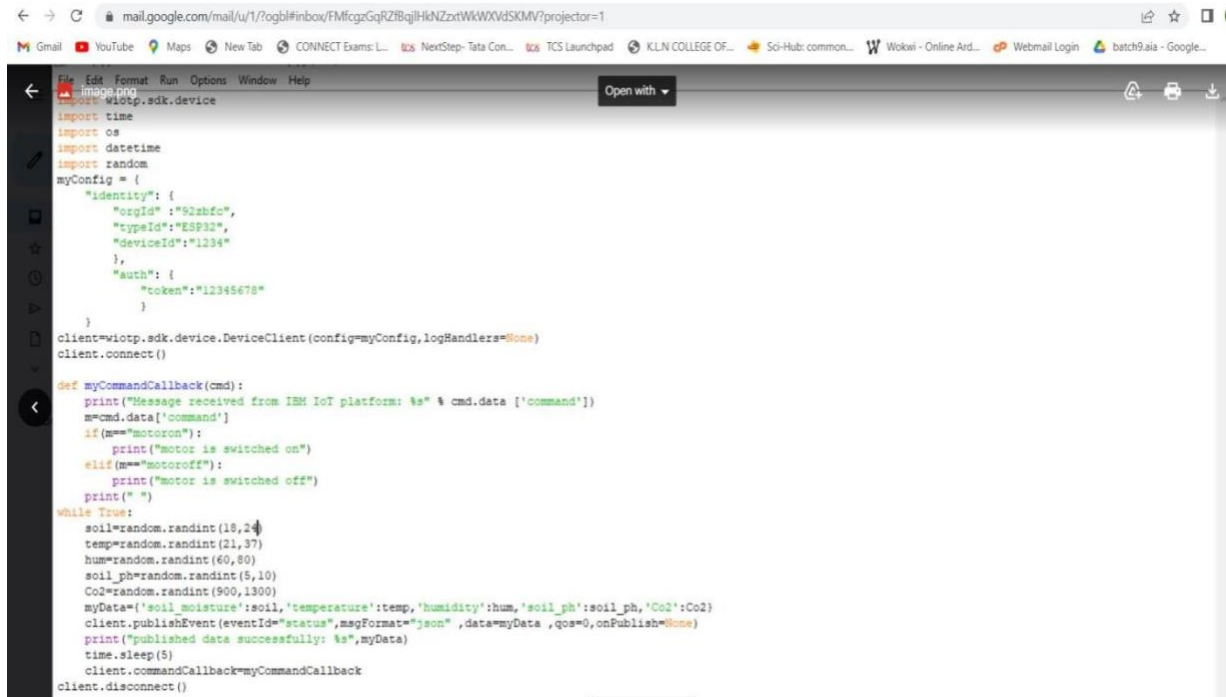


# SPRINT 1- PYTHON PROGRAM TO GET CONNECTED WITH IBM IOT WATSON PLATFORM:



The screenshot shows a web browser window with a Google Mail page in the background. Overlaid on the browser is a code editor window displaying a Python script for connecting to the IBM IoT Watson Platform. The script includes imports for time, os, datetime, and random. It defines a configuration dictionary with orgId, typeId, deviceId, and an authentication token. The script then creates a DeviceClient, connects to the platform, and defines a callback function to handle incoming commands. A while loop generates random sensor data (soil moisture, temperature, humidity, soil pH, and CO2) and publishes it to the platform every 5 seconds. The script ends with a disconnect call.

```
import time
import os
import datetime
import random

myConfig = {
    "identity": {
        "orgId": "92zbfc",
        "typeId": "ESP32",
        "deviceId": "1234"
    },
    "auth": {
        "token": "12345678"
    }
}

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=="motroff"):
        print("motor is switched off")
    print(" ")
    while True:
        soil=random.randint(10,20)
        temp=random.randint(21,37)
        hum=random.randint(60,80)
        soil_ph=random.randint(5,10)
        Co2=random.randint(900,1300)
        myData={'soil_moisture':soil,'temperature':temp,'humidity':hum,'soil_ph':soil_ph,'Co2':Co2}
        client.publishEvent(eventId="status",msgFormat="json",data=myData ,qos=0,onPublish=None)
        print("published data successfully: %s"%myData)
        time.sleep(5)
    client.commandCallback=myCommandCallback
client.disconnect()
```



The screenshot shows a Python 3.6.2 Shell window with the following output:

```
Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\kamalesh\Downloads\ibm p.py =====
2022-11-19 22:08:01,008 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:92zbfc:ESP32:1234published data successfully: %s
({'soil_moisture': 24, 'temperature': 29, 'humidity': 63, 'soil_ph': 8, 'Co2': 1086})
published data successfully: %s ({'soil_moisture': 20, 'temperature': 26, 'humidity': 66, 'soil_ph': 5, 'Co2': 1235})
```

The output shows the successful connection to the IBM IoT Watson Platform and the publication of sensor data. The status is 'Connected successfully: d:92zbfc:ESP32:1234'. The sensor data published includes soil moisture, temperature, humidity, soil pH, and CO2 levels.

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xcjago.internetofthings.ibmcloud.com/dashboard/devices/drilldown/ESP32-IBM17?returnTo=/devices/browse

GmailYouTubeMaps

anbu8428@gmail.comID: xcjago

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Device Drilldown - IBM17

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

Connection Information

Basic connection information about this device.

Device ID

IBM17

Device Type

ESP32

Date Added

Nov 9, 2022 10:42 AM

Added By

anbu8428@gmail.com

Connection Status

Disconnected

Recent Events

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
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Waiting for device events...

0 Simulations running

24°C  
Mostly sunny

Q Search

ENG  
IN

08:26 AM  
17-11-2022