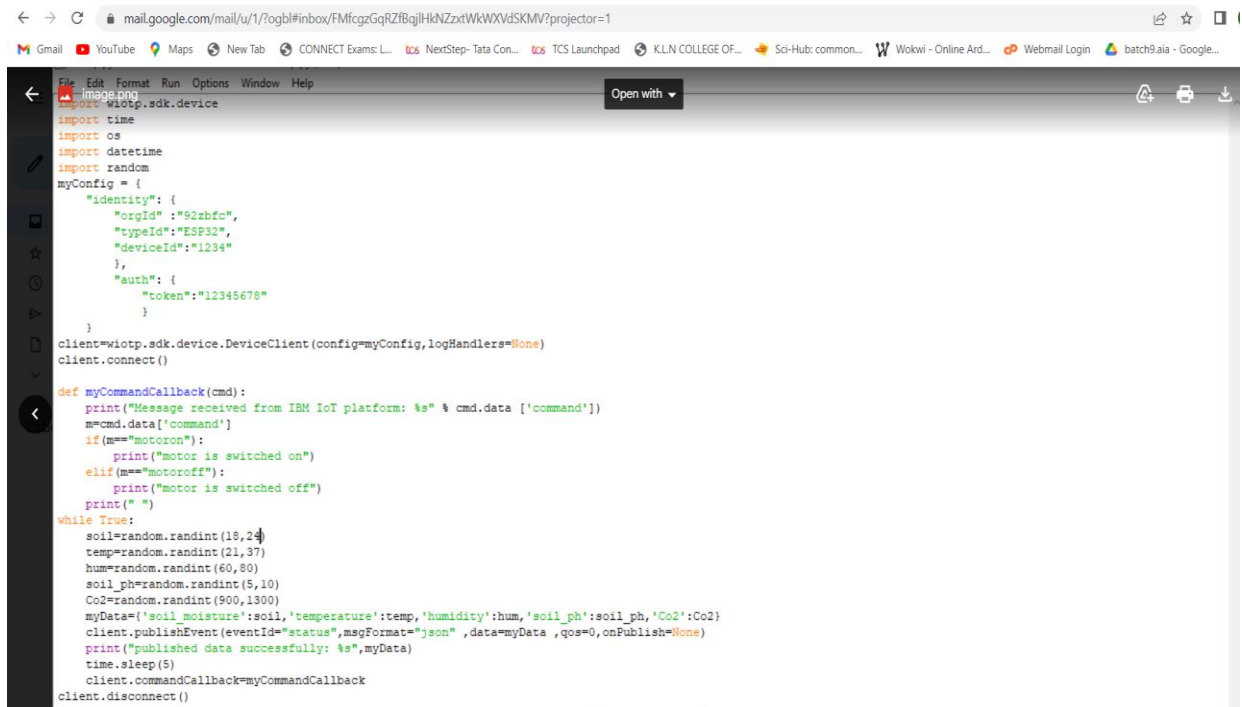


# SPRINT 1- PYTHON PROGRAM TO GET CONNECTED WITH IBM IOT WATSON PLATFORM:



The screenshot shows a web browser window with a Google Mail interface. A code editor is overlaid on the browser, displaying a Python script for connecting to the IBM IoT Watson Platform. The script includes imports for the Watson SDK, time, os, datetime, and random modules. It defines a configuration dictionary with device details and a callback function for handling commands. The main logic involves connecting to the Watson IoT platform, publishing sensor data (soil moisture, temperature, humidity, soil pH, and CO2) at intervals, and handling incoming commands to switch a motor on or off.

```
import wiotp.sdk.device
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 == "motorooff"):
        print("motor is switched off")
    print(" ")
    while True:
        soil = random.randint(10, 24)
        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 =====
2022-11-13 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.

