DEVELOP THE PYTHON SCRIPT

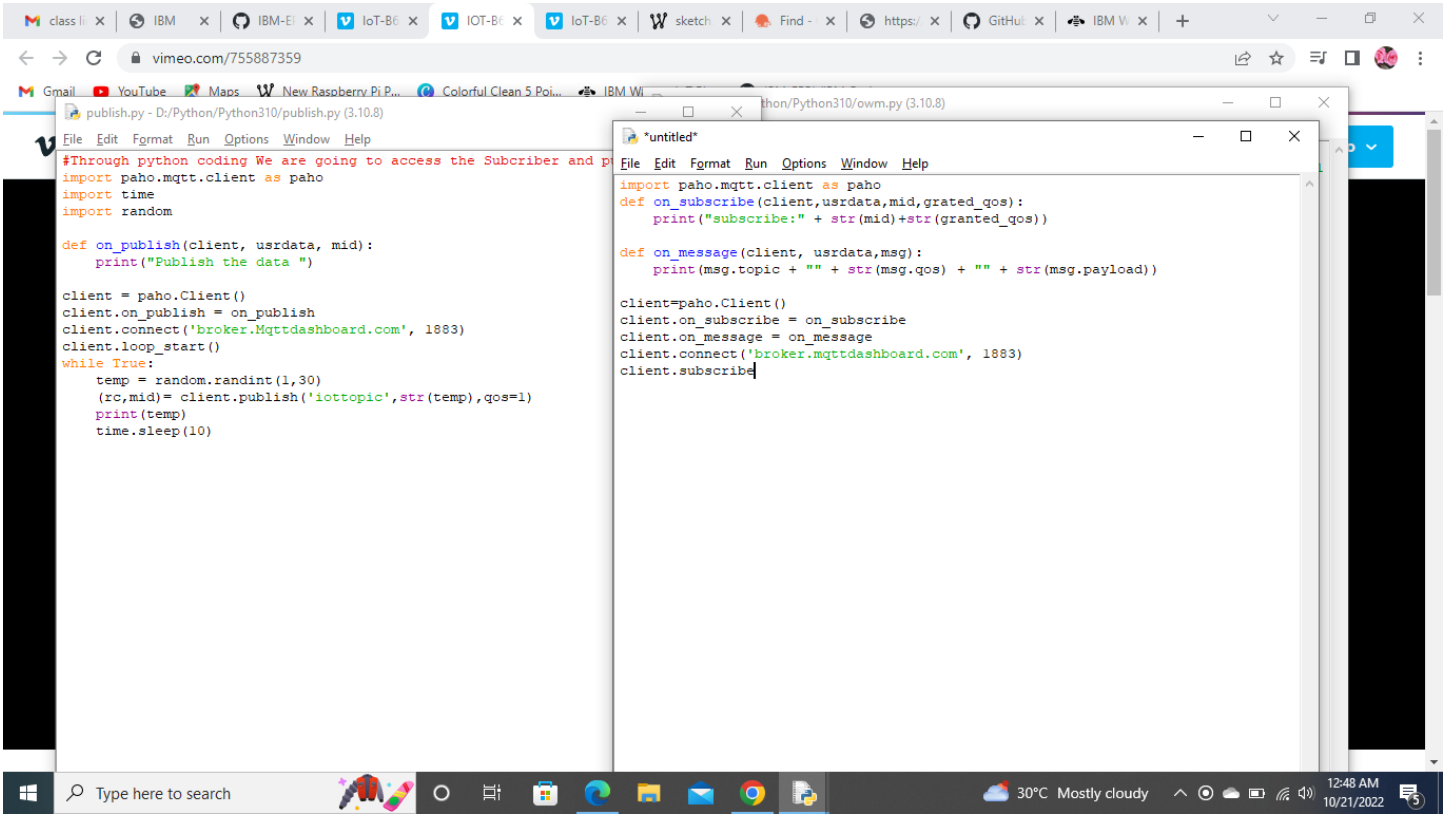
Publish data to the IBM Cloud

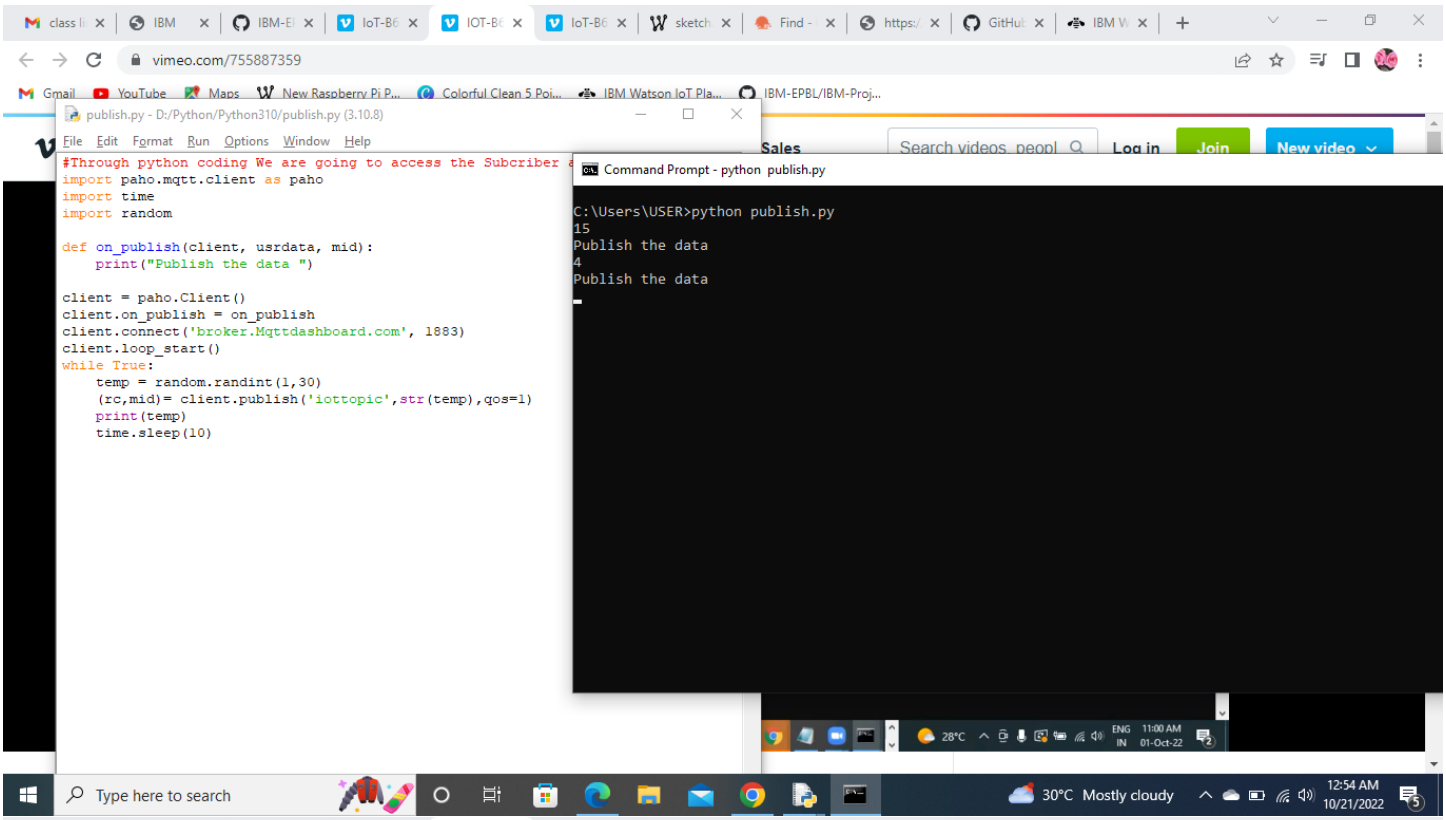
Date : 21 October 2022

Team ID : PNT2022TMID07534

Project Name - SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY

To make a Publisher and Subscriber in the process of Python and IBM cloud




vimeo.com/755887359
publish.py - D:/Python/Python310/publish.py (3.10.8)
File Edit Format Run Options Window Help
#Through python coding We are going to access the Subcriber
import paho.mqtt.client as paho
import time
import random
def on_publish(client, usrdata, mid):
print("Publish the data ")
client = paho.Client()
client.on_publish = on_publish
client.connect('broker.Mqttdashboard.com', 1883)
client.loop_start()
while True:
temp = random.randint(1,30)
(rc,mid)= client.publish('iottopic',str(temp),qos=1)
print(temp)
time.sleep(10)
Command Prompt - python publish.py
C:\Users\USER>python publish.py
15
Publish the data
4
Publish the data
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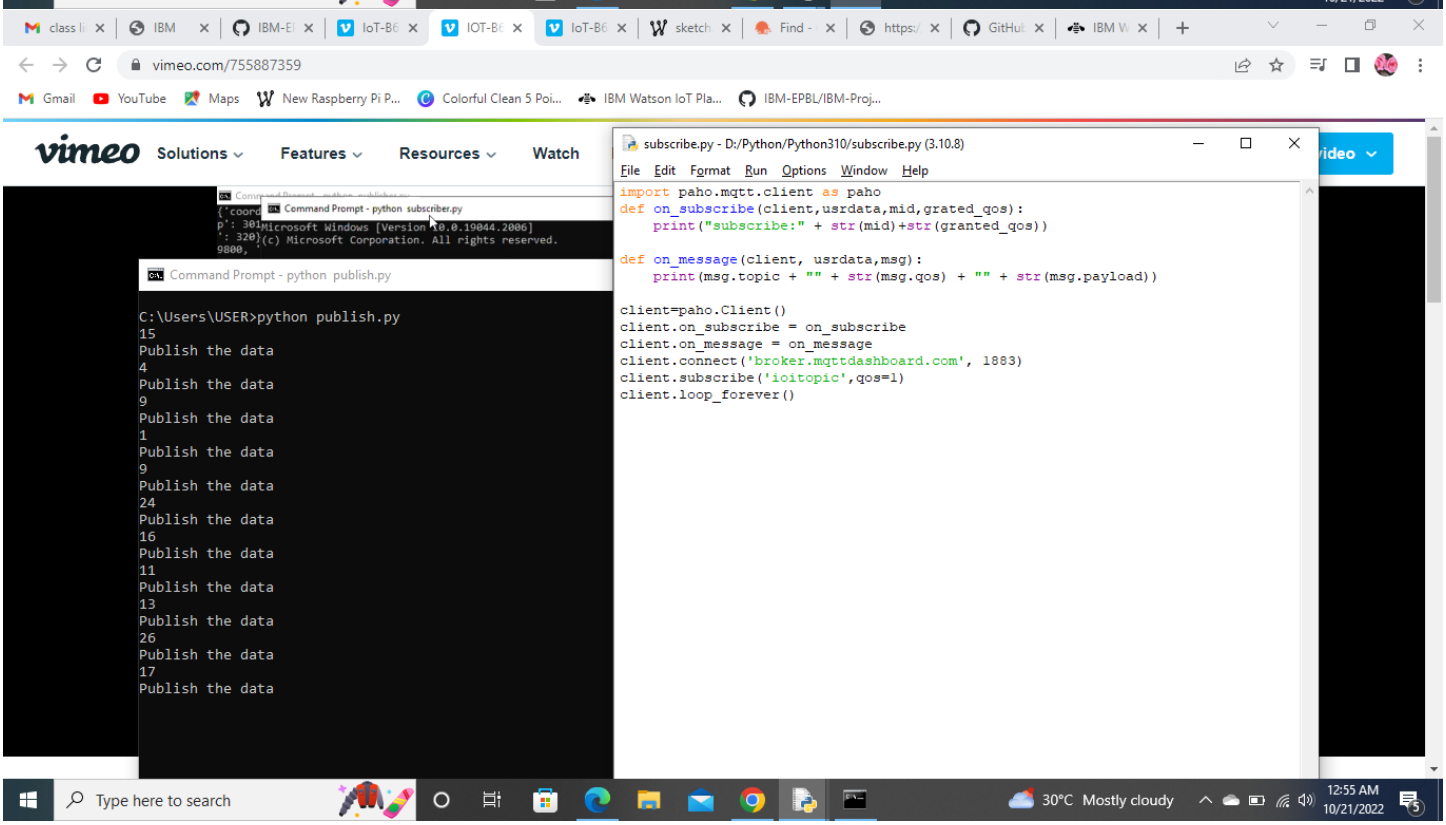
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Command Prompt - python subscriber.py
Microsoft Windows [Version 10.0.19044.2006]
(c) Microsoft Corporation. All rights reserved.
Command Prompt - python publish.py
C:\Users\USER>python publish.py
15
Publish the data
4
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26
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17
Publish the data
subscribe.py - D:/Python/Python310/subscribe.py (3.10.8)
File Edit Format Run Options Window Help
import paho.mqtt.client as paho
def on_subscribe(client,usrdata,mid,grated_qos):
print("subscribe:" + str(mid)+str(granted_qos))
def on_message(client, usrdata,msg):
print(msg.topic + "" + str(msg.qos) + "" + str(msg.payload))
client=paho.Client()
client.on_subscribe = on_subscribe
client.on_message = on_message
client.connect('broker.mqttdashboard.com', 1883)
client.subscribe('ioitopic',qos=1)
client.loop_forever()
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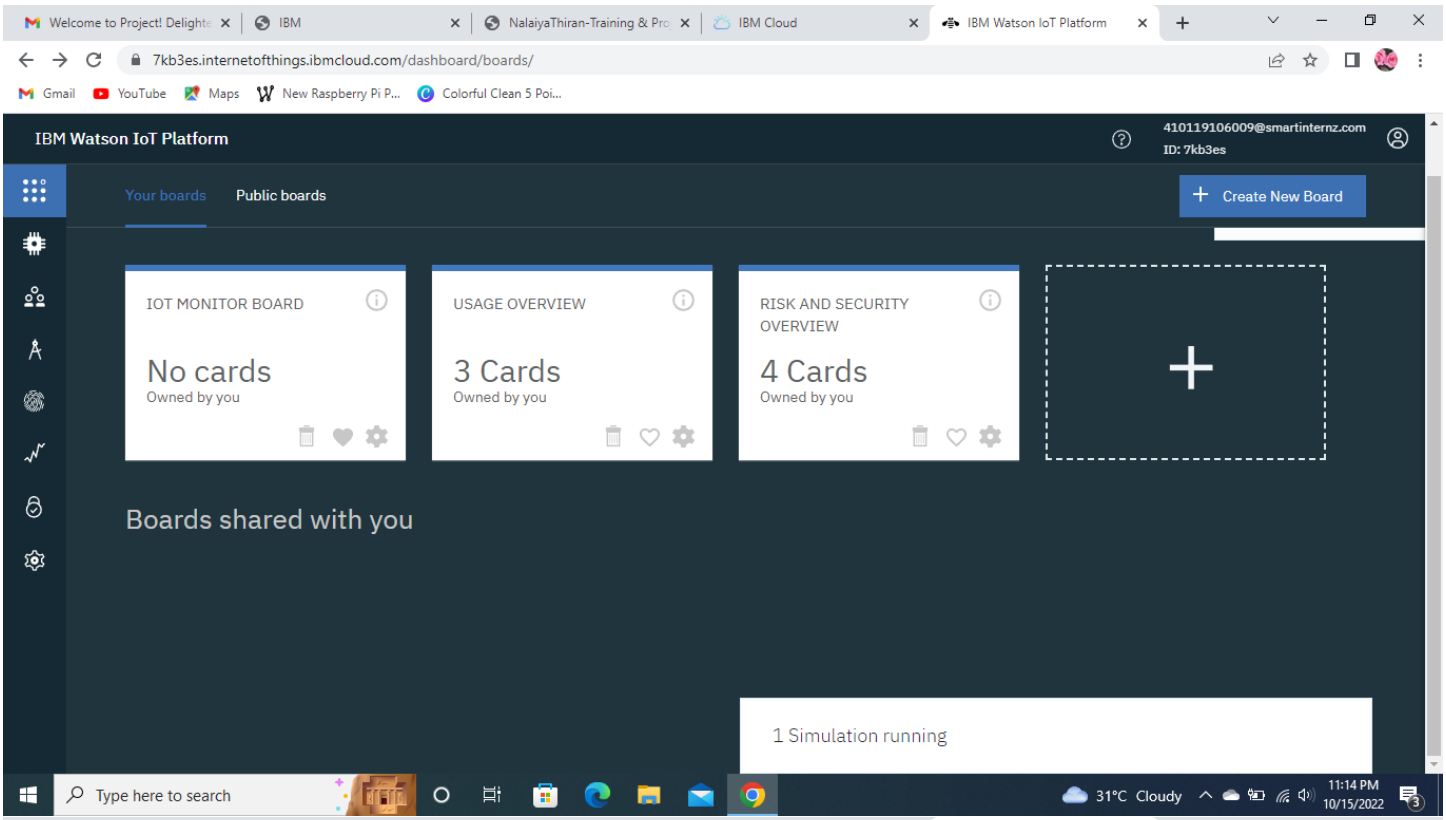
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Your boards
Public boards
Create New Board
IOT MONITOR BOARD
No cards
Owned by you
USAGE OVERVIEW
3 Cards
Owned by you
RISK AND SECURITY OVERVIEW
4 Cards
Owned by you
Boards shared with you
1 Simulation running
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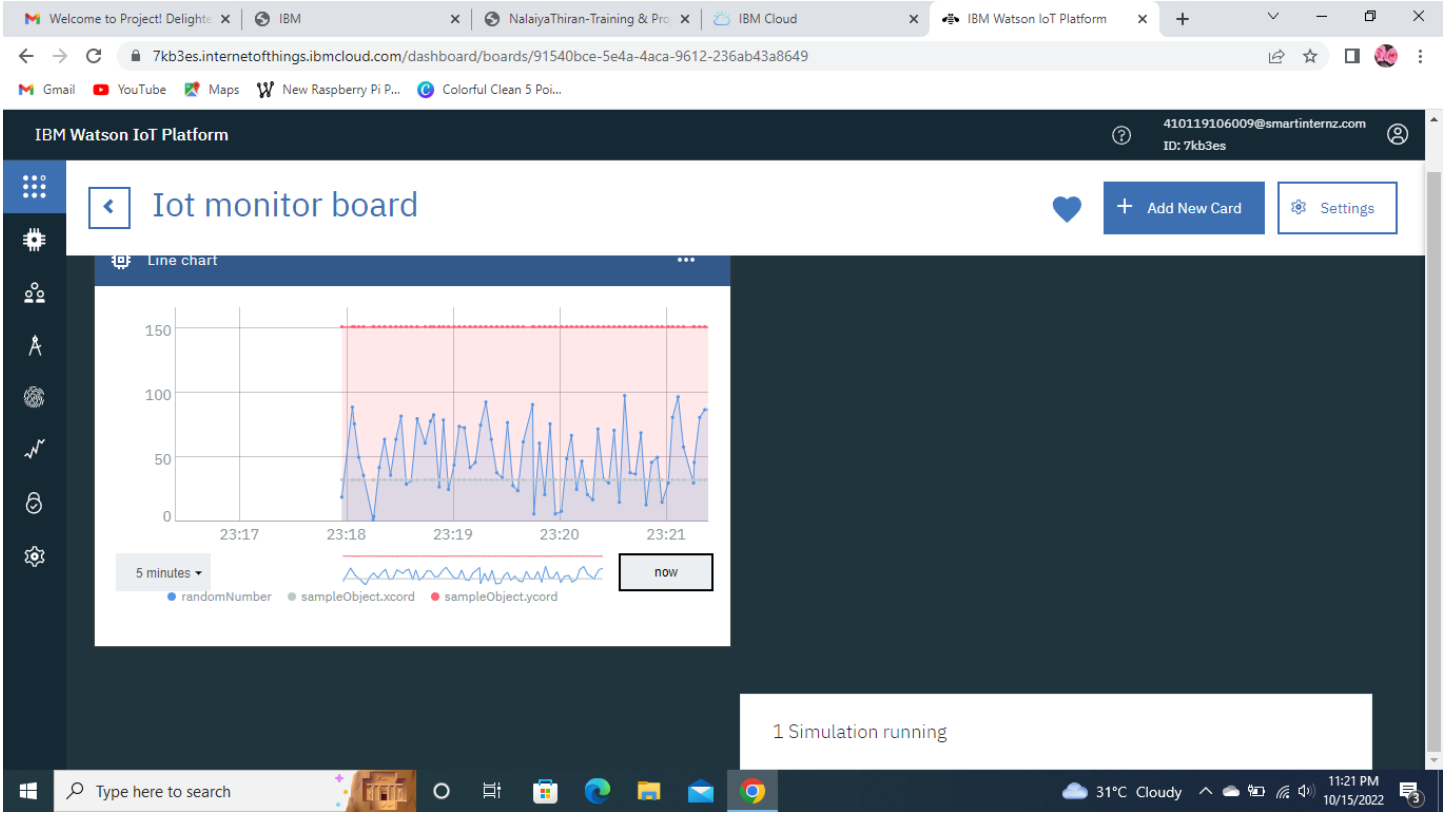
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ID: 7kb3es
Iot monitor board
Add New Card
Settings
Line chart
150
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23:17
23:18
23:19
23:20
23:21
5 minutes
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1 Simulation running
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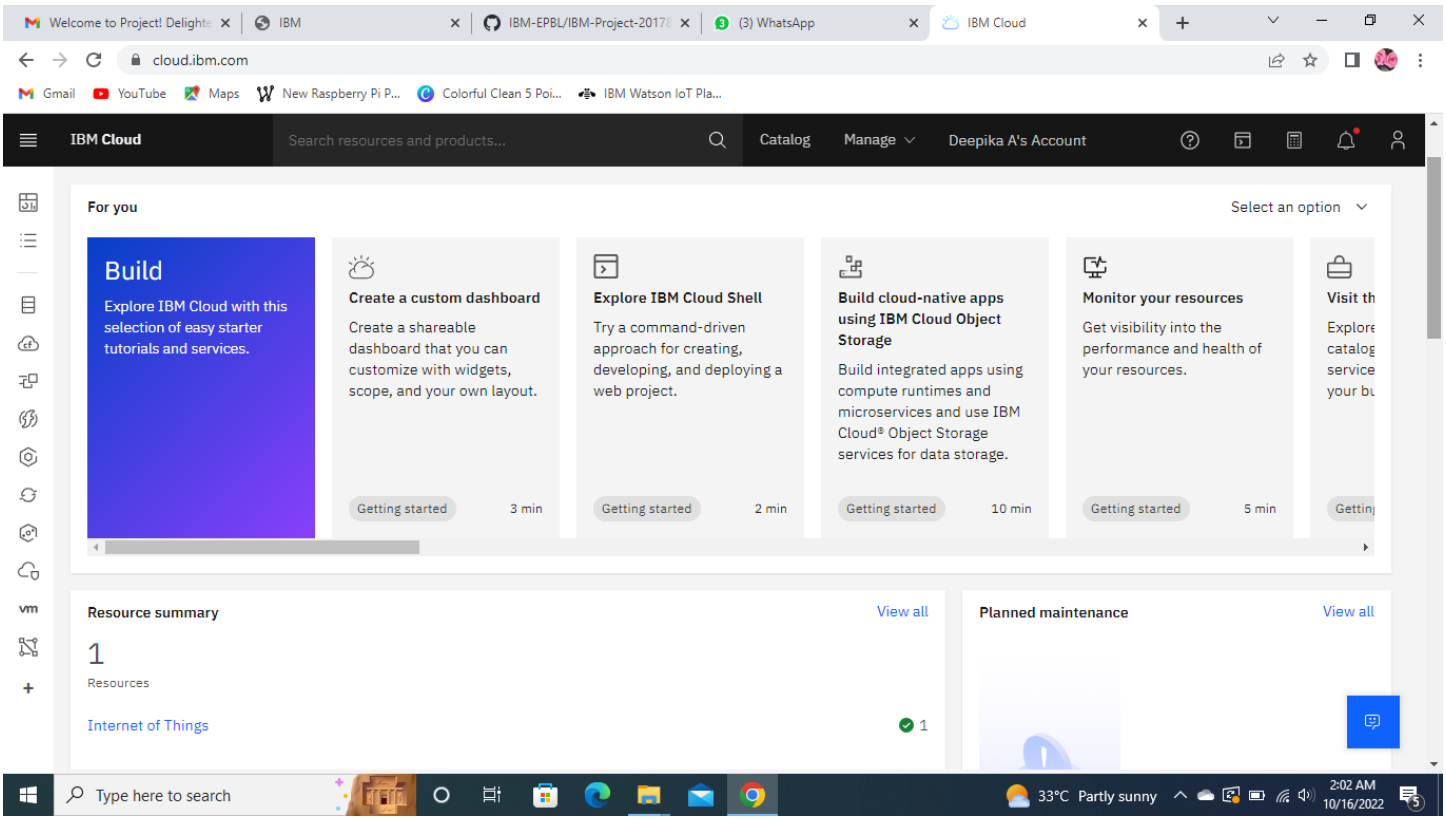

PROGRAM

```
#IBM
Watson
IOT
Platform
```

```
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "hj5fmy",
        "typeId": "NodeMCU",
        "deviceId":"12345"
    },
    "auth": {
        "token": "12345678"
    }
}
```

```
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']



client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()



while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'temperature':temp, 'humidity':hum}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```